October 20, 2026

Commenting on a Notice by the **Department of Health and Human Services, HHS-OASH-2026-0397**

Request for Information on Electromagnetic Fields (EMFs), Radiofrequency (RF) Radiation, and Wireless Radiation Exposure

Dear Secretary Kennedy and the Electromagnetic Radiation Investigation Team,

Please allow me to introduce myself, my name is Cecelia (Cece) Doucette and I am the founder and Director of Massachusetts for Safe Technology, where I collaborate with thousands of citizens from the U.S. and around the world.

## Question 2

**Why I Care About Your Investigation**

I have never felt good under fluorescent lights, my body has given me feedback since I was a child that these man-made energies are disruptive to my own biological signaling. So, in all of my professional offices as a technical writer, I removed the tube lighting and replaced it with lamps using incandescent bulbs. Colleagues would wander into my office, sit down, exhale and say how much they loved my office. Their bodies too could tell that the flourescents and CFLs, and now many of the LEDs, are not compatible with health.

I hope HHS can restore the sales of incandescent lighting. If we simply put them on motion detectors, that would drastically cut down energy usage, like Switzerland already does.

While my children were in school, I helped run seven campaigns for the Ashland Education Foundation in Massachusetts to bring technology into the schools to support what industry was telling us was needed for the 21st Century Classroom. I then served as the district's grant coordinator and helped secure many grants for iPads, Chrome Books, Apple TV, smart boards and more -- what we thought was great new wireless technology.

Then an electrical engineer friend mentioned there could be biological risks from the electromagnetic fields of radiation (EMFs) emitted by all wireless technology so I began to

investigate. I discovered there is great harm and more information available than I could keep track of, so I built a simple research repository to categorize it and reference important information.

**Being Part of the Solution**

I was raised in a single-parent family of ten children, and my Mom taught us if we bring up a problem, we should do our best to pitch in and be part of the solution.

So, my goal is to give the public the right to know wireless technology is hazardous, and teach safer ways to use today's technology until the industry brings biologically safe mobile technology to market. The message is not "no technology" but rather "safe technology". We can teach how to simply plug via Ethernet cables, with adapters as needed, and turn off the wireless antennas.

We can then work in our communities to put zoning protections in place from cell towers and small cells, and ensure safe utility meters for water, gas, electric, solar and propane.

I have been working on technology safety since 2012 and have planted many seeds and made important inroads. I share the following in case it may spark ideas for how to convey HHS information to the public.

On the **local** level, I have:

- Helped Ashland Public Schools, Massachusetts, become the first in the United States to begin taking precautionary measures
- Secured a local grant to put the first radiofrequency radiation detection meter on loan in a U.S. public library; collaborated with citizens to do the same elsewhere
- Collaborated with the Ashland Friends of the Library to host a six-part documentary film and discussion series on Electromagnetic Radiation and Health
- Presented the non-industry funded science and medical advisories to my local board of health and school committee
- Accompanied parents in other communities to begin this conversation with school administrators and municipal boards

- Conducted interviews with local cable station hosts
- Co-hosted a five-part cable series on The Dangers of Wi-Fi airing throughout the U.S.
- Produced cable public service announcements

On the **state** level, I have:

- Established and direct Massachusetts for Safe Technology
- Worked with Senate President Karen Spilka, Senator Julian Cyr, Senator Paul Mark and State Representative Jack Lewis to introduce legislation to address wireless radiation and public health, helping Massachusetts to lead the nation with a series of EMF bills over several sessions
- Testified on the bills and co-lead efforts to solicit written testimony from leading scientists, doctors and those suffering health effects from wireless radiation exposure
- Met with Senators and Representatives to share current scientific and medical findings
- Testified in New Hampshire for Representative Patrick Abrami's 2019 bill HB522 Establishing a commission to study the environmental and health effects of evolving 5G technology; this bill was passed into law and a groundbreaking Commission Report was issued in November 2020; see interview with commission member Kent Chamberlin, PhD
- Testified in 2022 for New Hampshire's HB1644 to begin implementing the 5G Commission Report recommendations with a 1,640-foot/500 meter setback for new cell towers and antennas, and to establish a statewide registry for citizens to report wireless radiation harm
- Collaborated with the Massachusetts Department of Public Health to write EMF public health fact sheets
- Testified before the Massachusetts Department of Public Utilities on the need to stop the National Grid utility smart grid pilot program
- Taught the Massachusetts Department of Elementary and Secondary Education the risks of wireless technology and solutions for using technology safely in our schools

- Educated the Massachusetts Executive Office of Health and Human Services
- Collaborated with Dr. Lisa Nagy on an EMF Resolution with the Massachusetts Medical Society and Final Wireless Communications Public Safety Standards Policy Statement
- Presented at the People's Health Rights Freedom Forum and the Health Rights MA Congress
- Educated attendees at the joint convention of the Massachusetts Association of School Committees and the Massachusetts Association of School Superintendents, the MetroWest Conference for Women, and the Southeastern Massachusetts Building Officials Association
- Served as a guest on the PBS Connecting Point program in 2016 and 2017
- Provided interviews to the Boston Globe (Could Your Cell Phone's Electromagnetic Fields Make You Sick?), Boston 25 News (Parents say school's Wi-Fi signal making son sick;

On the **national** level I have:

- Co-chaired the technology panel for the Health in Buildings Roundtable Conference held at the National Institutes of Health (NIH)
- Helped plan and present on the policy panel at the first U.S. EMF Conference to train health care professionals (15 CMEs), and the EMF Medical Conference 2021 (24.5 CME/CEs)
- Spoken at the National Health Federation Conference
- Joined the Environmental Working Group (EWG) to meet with California legislators to dissuade passage of SB. 649 which would have allowed toxic wireless radiation antennas inside neighborhoods for 5G and Internet of Things (IoT) infrastructure
- Presented at Michigan Senator Patrick Colbeck's *Wireless Technology: Benefits & Risks* forum with leading world EMF experts
- Provided information on wireless radiation health risks to federal legislators in Washington, D.C.
- Discussed Massachusetts milestones in the film Wi-Fi Refugees

- Served as interview guest for podcasts with Grassroots Environmental Education, EMF Warriors and Dr. Patricia Hopkins' Genius of Wellness Podcasts
- Been featured in articles in the O'Dwyer Report, Natural Blaze and Spirit of Change Magazine

On the **international** level I have:

- Co-founded and serve as the Education Services Director for the non-profit Safer Screentime
- Planned and co-hosted annual World EMR Syndrome Day USA symposiums
- Spoken at the World Council for Health's Better Way Conference
- Facilitated the EMR/Wireless panel at the Children's Health Defense Conference
- Moderated *The Movements of Safe Technology in North America* panel for the II Brazilian Meeting of Electromagnetic Protection
- Participate as a citizen scientist in the Global EMF Monitoring project to document EMF exposures in our communities
- Been featured in the award-winning documentary Generation Zapped, and co-hosted many screenings of the film
- Presented in the EMF Health Summit and the 5G Crisis: Awareness and Accountability Summit
- Continuously collaborate with leading EMF scientists, doctors, public health experts and environmentalists to educate the world on technology safety

Almost across the board, however, public servants are waiting for higher authorities to tell them what to do which is why we are so grateful that HHS is finally doing what appears to be a true assessment of EMFs, EMR, and wireless radiation risks.

# Massachusetts Inroads

The following outlines the inroads we have tried to make in Massachusetts though none have resulted in informing the public and protecting our children.

**MASSACHUSETTS MEDICAL SOCIETY**

We are very grateful to environmental medicine expert Dr. Lisa Nagy of Martha's Vineyard for prioritizing the health risks of electromagnetic fields (EMFs) with the Massachusetts Medical Society.

Dr. Nagy introduced the **Resolution:** ***Wireless Communications Public Safety Standards Reevaluation.*** Following testimony by Dr. Cindy Russell, who helped California pass the first EMF Resolution in 2014, and Dr. David Carpenter, advisor to the World Health Organization, in December 2021 the MMS adopted the **policy statement:**

*That the Massachusetts Medical Society supports continuing research, including quality epidemiologic studies, by appropriate agencies and entities to produce evidence-based data on the effect(s) of radio frequency radiation on human health. If indicated, study findings should be used to revise and update public health standards for safe limits of human exposure to radio frequency radiation.*

See also the **1997 Boston Physicians' and Scientists' Petition To Avert Public Exposures to Microwaves**

**LEGISLATION**

In 2013, the cities of **Boston and Philadelphia filed a submission** to the Federal Communications Commission (FCC) (Dockets #13-84 and #03-137) that accused the FCC and federal health agencies of negligence for failing to investigate whether electrosensitive persons are harmed by wireless radiation.

In 2015, a panel of **world-leading experts** presented wireless risks to the Massachusetts legislature, asking for right-to-know legislation.

Massachusetts has lead the nation for several years with bills to address the health, environmental and economic impact of today's wireless technology.

**Click here to see the MA EMF Bills.**

Click here to see a **sampling of spoken testimonies** received by the legislature. There is a long record of written testimonies at the State House too.

The Joint Committee on Consumer Protection and Professional Licensure advanced Senator Cyr's commission bill in November 2021. See the **summary** sent in April 2022 by Cece Doucette to Senator Michael J. Rodrigues, Chair, Senate Committee on Ways and Means with the top ten urgent reasons to protect the public and environment from wireless radiation.

In the meantime, **Boston** has allowed more than **1,500 toxic small cells** and **thousands of macro (big) cell antennas** to be installed. See locations of small cells here, and a map here. Industry is expanding into neighborhoods all over the state, except in communities that listen to their residents and proactively implement **protective zoning code**.

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Other states are also filing legislation. **New Hampshire** already passed a bill into law to investigate and issued a **groundbreaking report** documenting the conflicts of interest with industry and federal agencies. NH recommends 15 actions to inform and protect our communities.

Click here to see **Bills in Other States**.

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**In 2020, the City of Boston filed a submission to the FCC's 19-226 docket stating, "Boston believes that the concerns of the public are real and that the Commission has done a disservice to itself, local government, consumers, and even the wireless industry in failing to understand and respond to the broadly shared mistrust of the safety of RF emissions."** See the full submission here.

Massachusetts for safe TECHNOLOGY

The **City of Boston in August 2020 filed a lawsuit** against the FCC for usurping local control, and it was combined with similar cases around the country, including the U.S. Conference of Mayors. See the **lawsuit** here. Unfortunately, the courts sided with industry.

**DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION**

In 2014, resident Cece Doucette informed Ashland Public Schools, MA of the risks to children. When they read the **fine print** that comes with wireless devices, Ashland became the **first in the nation** to adopt Best Practices for Mobile Devices.

They are waiting for higher authorities to advise them to actually turn off the radiation transmissions though. The children and staff remain in a high radiation environment.

Parents reached out to higher authorities at the Massachusetts Department of Elementary and Secondary Education (DESE) informing them of the harmful health effects of today's wireless technology, especially to children. See **brief video presentations here**.

Parents also invited the DESE Board to an expert panel presentation by leading scientists, doctors and an industry expert, "Questioning the Safety of Our Children's Exposure to Wireless Radiation in Schools". DESE members did not attend so they were provided with the **event videos** afterwards.

DESE Board members and the Massachusetts Association of School Committees were also invited to the **TechSafe Schools'** legal, health, and remediation webinars.

The DESE Board has taken no leadership action to protect Massachusetts children, indicating they are waiting for higher authorities to advise them what to do.

Meanwhile, the **U.S. Department of Education is pushing cell towers** in neighborhoods, on schools and on school buses.

**DEPARTMENT OF PUBLIC HEALTH EXECUTIVE OFFICE OF HEALTH & HUMAN SERVICES**

When the panel of world experts came to the State House in 2015, they also met with the MA Department of Public Health (DPH).

In 2016, Cece Doucette helped the DPH write **EMF public health fact sheets.** She was told would they would be released in three months. They were never released. When the Boston Globe investigated in 2019, they were told EMF public health guidance would be out within six months.

Instead, within weeks of the Boston Globe **article's publication**, the DPH added an **EMF page** to the state's Radiation Control website. It denies direct harm from EMFs, even after the DPH had received the **$30M U.S. National Toxicology Program report**concluding "clear evidence" radio-frequency causes cancerous tumors and DNA damage.

Jana Ferguson at the DPH indicated citizens were misinformed and there was no other EMF public health fact sheet forthcoming.

Cece then requested a meeting with Secretary of Health and Human Services (HHS) Mary Lou Sudders, who oversaw the DPH. Secretary Sudders arranged for a meeting with Cece, Undersecretary Lauren Peters and Legislative Director Rob Laughlin. Also in attendance were the Joint Committee on Public Health's Research Analyst Tane Webb, Senator Spilka's District Direct Puja Meta, DESE's Matt Deninger and citizens from across the Commonwealth.

Cece walked them through the EMF science, risks, legislation and safe technology solutions. Some of them had noticed Verizon's 5G small cell antennas going up at the curb outside their office in Boston's McCormack Building.

Cece followed up with a **one-page HHS summary document** which others are welcome to use as a high-level overview of the wireless issues.

**HHS and DPH have still taken no measures to protect public health over corporate interests.**

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The Massachusetts Association for Boards of Health now includes cell tower risks in the last four pages of the **Legal Handbook and Public Health Guidebook for Massachusetts Boards of Health**.

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**Massachusetts Supreme Judicial Court**

In 2020 a Verizon cell tower made 17 Pittsfield, MA children and adults ill with microwave sickness. They turned to the MA DPH for help, and the DPH abandoned them. After two years of citizens, doctors, scientists, engineers and legislators educating Pittsfield public servants on the biological effects of wireless radiation, in April 2022 the **Pittsfield Board of Health** became the first in the nation to issue an **Emergency Order**of discontinuance and abatement to Verizon to turn off the cell tower.

Verizon went to the courts for an injunction, and Mayor Tyer and Solicitor Pagnotta refused to give their own Board of Health the funding to take this to court to bring these families safely home. The citizens have had to sue. The **Massachusetts Association of Health Boards** (MAHB) filed an **amicus brief** in the **civil suit against Pittsfield** in support of the injured citizens. The court deferred to the FCC; the citizens filed an **appeal**and the court once again deferred to the FCC.

The **Massachusetts Supreme Judicial Court** (MASJC) took up the case to potentially reinstate the Board of Health's powers. **MAHB** and others submitted amicus briefs. In July 2026 the **MASJC ruled** in favor of the industry and indicated citizens should file legal action against the Federal Communications Commission (FCC). That was already done in 2021 but the FCC has failed to respond to a federal DC Circuit Court order to account for their outdated RF exposure limits. See 2026 actions from the Environmental Health Trust and Children's Health Defense.

**ATTORNEY GENERAL'S OFFICE & DEPARTMENT OF PUBLIC UTILITIES**

Harvard's free on-line report "Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates" likens the wireless industry tactics to the tobacco industry playbook.

The latter was finally held accountable when Attorney Generals from multiple states banded together and sued the tobacco industry for harm.

Massachusetts for safe TECHNOLOGY

Massachusetts Attorney General Maura Healy and her staff have been briefed on the wireless radiation issue.

Assistant Attorneys General Alexander Early and Shannon Beale attended the Massachusetts Department of Public Utilities 2018 hearing on National Grid's Smart Grid Pilot Program. They heard citizens' sworn statements on the biological harm from utility "smart" meters and the fraudulent activity in the pilot program. They received binders of information to substantiate the testimony.

In 2020, the DPU opened Docket #20-69, *Investigation by the Department of Public Utilities on its own Motion into the Modernization of the Electric Grid - Phase II*. Many written testimonies were sent in by legislators, doctors, scientists and citizens asking for safe utility meters. Technical sessions were held and citizens, including Dr. Lisa Nagy, spoke out.

See hearing videos here.

The Attorney General's Office and the Department of Public Utilities have taken no action to protect public health over corporate interests.

# Massachusetts News Reports

As much as industry tries to keep the facts about wireless harms out of mainstream media, local outlets are sometimes able to report, as do independent media channels. It is imperative that the industry is held accountable for funding local cable stations as that remains one of the last free bastions of uncensored journalism in America today.

Following are segments/articles with Massachusetts residents. These have proven useful in showing those new to the tech safety conversation that many other communities are already tuning in:

- **Acton TV:** The Hidden Dangers of Wireless Devices, Part 3, Smart Meters
- **Greenfield Recorder:** 'A landline is a lifeline': Hawley urges FCC to reject Verizon's plans to end landline service
- **Informed Life Radio:** Smart Meters, Informed Consent, and the Right to Opt Out **with Cece Doucette**
- **CHD.TV:** Advocating for Safer School Tech - Cece Doucette, MTPW
- **Tyngsborough, MA:** Board of Health Meeting **with Cece Doucette | July 13th, 2026**
- **KLA.TV:** Wireless Industry Facing Pushback by Lawmakers and Judges - Interview with Cece Doucette
- **Acton TV:** The Hidden Dangers of Wireless Devices
- **Acton TV:** The Hidden Dangers of Wireless Devices Part 2
- **CHD.TV:** Pittsfield Cell Tower Update - Scott McCollough, Esq.
- **Burlington Buzz:** Letter to the Editor: Fragrances Are the New Secondhand Smokeby Ruth Rin (EMR Syndrome and Multiple Chemical Sensitivities often go hand-in-hand)
- **Berkshire Eagle:** High-speed internet is finally reaching the last homes in Florida, Savoy, Hawley and Monroe

- **MAHA Report:** Cell Towers Are a Toxic Burden on Americans — Attorney Miriam Eckenfels and Pittsfield's Amelia Gilardi
- **The Defender:** Top Massachusetts Court Deals Blow to Residents Battling Verizon Cell Tower
- **iBerkshires.com:** SJC Dismisses Pittsfield Cell Tower Suit
- **Berkshire Eagle:** Massachusetts' highest court says Pittsfield doesn't have authority to force shutdown of cell tower
- **CHD TV:** Resilience after EMR Syndrome — Mana Washio, NBC-HWC
- **Daily Hampshire Gazette:** Easthampton council opposes Verizon cell tower near city line with Southampton
- **CHD.TV:** Opt-Out of Smart Meters - Cece Doucette, MTPW
- **EMF Radar:** Cell tower vote — and near re-vote — spur calls for reform **(Concord, MA)**
- **Daily Hampshire Gazette:** Concerns over health risks and property values spark opposition to Southampton cell tower
- **CHD.TV:** HHS Screentime Warning with Cece Doucette
- **MassLive:** Town-by-town map shows where cellphones are banned in Central Mass. schools
- **Burlington Buzz:** Town rejects rooftop antennas on residential rental building
- **Concord Bridge:** Cell towers, parking, rezoning on Town Meeting table
- **Plymouth Meetings:** Plymouth Board of Health 4/15/26 smart meter health injury with Juliane G. and Cece
- **WCVB Channel 5 Boston:** Smart meter swap leads to shocking electric bill for Massachusetts family
- **The Berkshire Edge:** "Your home needs to be a sanctuary": Berkshire residents clash with Eversource over smart meter safety

- **The Berkshire Edge:** Eversource roll out of 'smart meters' roils some Berkshire residents over possible health issues, increased fees, fire risks, privacy concerns
- **Nantucket Current:** After Smart Meters Installed, Nantucket Residents Say Electric Bills Have Skyrocketed
- **The Power Couple Podcast:** EMF Basics: What we need to know**, with Cece Doucette**
- **WACA-TV, Tech Safe** Episode 64: Smart Meter Injured with Dr. Alexia McKnight and Dr. Larry McKnight
- **WACA-TV, Tech Safe** Episode 63: Smart Meter Harm with Dr. Donna Ott
- **Greenfield Recorder:** My Turn: Killing us softly**, by Peter Seymour Howe**
- **The Berkshire Edge:** Lee Select Board supports legislation to eliminate consumer fees for opting out of a 'smart meter'
- **WACA-TV** OFF February PSA **with Cece Doucette**
- **Technoskeptic Substack:** Is A Mass Revolt Against Technocracy Starting to Happen? **By Tom Valovic**
- **Greenfield Recorder:** Ellen Landauer: Our friends the bumblebees
- **The Berkshire Edge:** Rollout of smart meters in Berkshires prompts discussions from local governing boards, community members
- **Safe Tech International:** NFL 49ers: Does a Polluted EMF/RF/5G Environment Contribute to Joint and Orthopedic Injuries in World-class Athletes?"Mother Nature" Has Wicked Sense of Humor?
- **Smart Meter Science:** Smart Meter Conversations: Kudos to the Greenfield Recorder in Western MA, Again
- **Greenfield Recorder:** Ellen Landauer: The body electric
- CHD.TV**:** Answering EMR & Wireless Questions with Cece Doucette
- **Greenfield Recorder:** Dave Graves: Smart meters — a familiar theme

- **CHD.TV:** Unseen Dangers of Wireless Techwith Cece Doucette
- **Lawrence Eagle Tribune via Government Technology:** ACLU Questions Use of Facial Recognition at Andover Schools **with Tom Valovic**
- **Greenfield Recorder:** Dr. Eric Leskowitz: Additional info on smart meter concerns
- **Greenfield Recorder:** Eversource customers express concerns over smart meter rollout
- **Enviro Show Podcast:** Electromagnetic Pollution **with Cece Doucette**
- **BioSafer Housing:** An EHS Gift-Giving Guide
- **Greenfield Recorder:** Ellen Landauer: 'Old Faithful'
- **Autism Parenting Secrets:** Wireless Safety Starts at Home
- **Berkshire Eagle:** SJC weighs whether Pittsfield board could act on cell tower health complaints under federal limits
- **Massachusetts Lawyers Weekly:** SJC to weigh Telecommunications Act preemption in cell tower dispute
- **BioSafer Housing:** An Electrically Sensitive Thanksgiving
- **Greenfield Recorder:** Ellen Landauer: More on smart meters and opting out
- **Greenfield Recorder:** Janet Sinclair: Smart meters and opting out
- **Safe Tech International:** AI & Algorithms vs. Kids, Kilowatts and HealthCare
- **Berkshire Eagle:** Still no cell signal in much of Lenox. Here's what town leaders are considering to partially plug the gap
- **Berkshire Eagle:** Lenox Zoning Board of Appeals rejects proposal to place a cell tower on Canyon Ranch property
- **The Defender:** Pennsylvania Woman Scores Temporary Win Against Smart Meter Mandate
- **Smart Meter Science:** Video and Slides: Smart Meter Harm with Ken Gartner and Cece Doucette

- **Berkshire Eagle:** Governor Healy Recognizes Invisible Disabilities Week After Lenox High Student Requested It
- **Smart Meter Science:** Smart Meter Event 10/29; UK Smart Meter Flyer; MA Gov. Questioning Utility Bills - She should ask about Smart Grid/Meter Surcharges
- Patricia's Substack for Safe Tech International
- **Berkshire Eagle/EM Radiation Research Trust:** The highest court in Massachusetts will weigh whether local boards have the authority to regulate cell towers, in a case that could set a national precedent
- **WCCA-TV Tech Safe 61:** Dr. Annie Sasco (apologies for technical difficulties)
- **CHD.TV:** Pregnancy and Wireless Radiation with Cece Doucette
- **Berkshire Eagle:**Public input on a Lenox cell tower has been extended to mid-September as officials process an 'overwhelming response'
- **Inside Towers:** Lenox Looks to Canyon Ranch for Connectivity
- **WCCA-TV Tech Safe 60:** Dr. Ross Andersen, DC, ND
- **WCCA-TV Tech Safe 59:** Dr. Debra Greene, Hawai'i Zoning Ordinance
- **Smart Meter Science Substack:** 9 new articles including MA EMF Bills Testimonies!
- **Patricia's Substack for Safe Tech International:** 22 new articles!
- **WCCA-TV Tech Safe 58:** Author Shannon Rowan
- **WCCA-TV Tech Safe 57:** Elizabeth Kelley & ICBE-EMF
- **WCCA-TV Tech Safe 56:** Sweden's Prof. Olle Johansson and the Disappearing Bees
- **WCCA-TV Tech Safe 55:** Gary Feltman & SafeTech4Schools
- **WCCA-TV Tech Safe 54:** YouBeTheChange with Shari Champagne
- **Good Morning CHD:** Courtney and Amelia Gilardi, and Cece Doucette at 45:42 on World EHS Day, Pittsfield Proclamation, and MA EMF Bills

- **Smart Meter Science Substack:**What Norway/Australia/MA Reveal About the On-Going International Smart Meter Agenda; If You Aren't Uncomfortable Yet, Please Look Again
- **Safe Tech International:** Piti Theatre: World EHS Day, by Patricia Burke
- **Smart Meter Science Substack:**6/12/25 MA Smart Meter Bill Testimonies: 17-year-old Amelia Coco Gilardi, Courtney Gilardi, Helen Walker of MACI Mass. Asso. for the Chemically Injured
- **Smart Meter Science Substack:** EHS Day, and MA Smart Meter Bill Testimonies: Jean Lemieux of Mass. Asso. for Chemically Injured; Cece Doucette of MA for Safe Technology; Bill Hearing Video, Events
- **Patricia's Substack for Safe Tech International:**Massachusetts for Safe Technology: Two EMF/RF Bill Hearings June 11 and 12; Public Health EHS Registry, and Smart Meters (Written, in person, or zoom)
- **Safe Tech International:**Artificial Intelligence and Transhumanism**, by Tom Valovic**
- **Safe Tech International:** Kent Chamberlain: "Predatory Delay"
- **Boston 25 News:**Eversource plans hefty monthly charge for customers who opt out of smart meter
- **New Bedford Guide:** Eversource slaps monthly fee, extra charge on opting out of smart meters in Massachusetts
- **WCCA-TV Tech Safe 53:** Michael Connely's Low-EMF School!
- **WCCA-TV Tech Safe 52:** Mauro DePascuale discusses the importance of maintaining public cable access for independent reporting
- **Greenfield Recorder:**Testimony argues against need for Greenfield cell tower
- **The Jimmy Dore Show:** RFK To BAN Cell Phones In Schools! **Includes clip of Cece Doucette showing the legal fine print in an iPhone**
- **April 9-10 Safe Tech International News and Notes:** Mercola & EMR-S W/VIDEOS, 24 papers, Non-thermal effects below limits. Paul Harding, EVENTS

- **Mercola Media:Wireless Radiation Sickness Gets a New Name — 'EMR Syndrome', with reference to the Wi-Fi Refugees film featuring Massachusetts residents Ida Pardo, Patricia Burke, Godelieve Richards, Jonathan Mirin and Cece Doucette**

**Analysis by Dr. Joseph Mercola April 10, 2025**

- **IMBY:Rare opportunity to meet and hear Cecelia Doucette of MA for Safe Tech in person!**
- **Science, Public Health Policy and the Law:Residents of Massachusetts Town Head Back to Court in Case Alleging Verizon Cell Tower Is Making Them Sick**
- **Science, Public Health Policy and the Law:Judge Rules Against Residents of Massachusetts Town Who Allege Verizon Cell Tower Is Causing Illness**
- **WCCA-TV Tech Safe 51: Dr. Magda Havas & EMR-S Precursors**
- **TechSafe International: Patricia Burke's Substack, Many New Posts!**
- **WCCA-TV Tech Safe 50: Dr. Paul Heroux on Why, According to Physics, EMFs Must Be Harmful**
- **WCCA-TV Tech Safe 49: Sheena Symington, Electrosensitive Society & ACT Trauma Treatment**
- **WCCA-TV Tech Safe 48:Shari Champagne, Louisiana 5G Animal Sanctuary Injuries/Deaths**
- **WCCA-TV Tech Safe 47:Shelley Wright & CE4ST, Part 2: Schools**
- **Harper's Magazine: "Taking on Trust" Letter to the Editor by Tom Valovic**
- **WCCA-TV: Tech Safe 46: Zoiy Galloay Smart Meter Injury**
- **WCCA-TV: Tech Safe 45: Shelley Wright & Canadian Educators 4 Safe Technology**
- **Common Dreams: What Has Happened to Our Grand Experiment, the Internet? by Tom Valovic**
- **Tech Safe International: Pig-Pen vs. Wiping Up the World: 2025's Evolutionary Challenge for Tech, Health, and Humankind by Patricia Burke**

- **Smart Meter Science:** [The MA Auditor Should Not Hire a Consulting Firm in Order to Audit the MA Legislature (smart meters!) And Taxpayers Should Not Pay for it: An Illustrative Smart Meter Story] **by Patricia Burke**

[Patricia Burke]

- **WCRN Radio:** [The Frankie Boyer Show with Cece Doucette and Norbert Heuser]
- **WCCA-TV: Tech Safe 44:**[Elana Kirschenbaum & Protect Greenfield]
- **Tech Safe International:** [When Politicians Checkmate the Wisdom of Informed Citizens re: EMF, RF, 5G & ...Utility Meters??? Massachusetts Matters]
- **Greenfield Recorder:** [Greenfield residents launch GoFundMe to fight cell tower proposal]
- **Tech Safe International:** [Demonic Tractors, 20 New Papers, RFK, PEMF, War, Surveillance, WCCA Worcester, ATT & POTS, Smart meters, Nuclear Action Item. C4ST Event tonight]
- **WCCA-TV: Tech Safe 43:** [Doe Kelly, Longmont for Safe Technology]
- **WCCA-TV: Tech Safe 42:** [Gina Lauria, Property Manager]
- **WCCA-TV: Tech Safe 41:** [Patti Wood, Tech Safe Schools]
- **Telecompetitor:** [Gateway Fiber Launches 100% Fiber Network in Pittsfield, Massachusetts]
- **What if it's Not Depression Podcast:** [Wireless Risks to Mental Health and Safer Technology Solutions] **with Dr. Aschina Stein and Cece Doucette**
- **The Defender:**[Judge Rules Against Residents of Massachusetts Town Who Allege Verizon Cell Tower Is Causing Illness]
- **Story Walking Radio Hour:** [For Our Children: Warrior Parenting]
  **Guest Janet Demeter, Founder of Jack's Angels Foundation and Host of Childhood Cancer Talk Radio**

- **Associated Press:** Schools are competing with cell phones. Here's how they think they could win
- August 26, 2024 Safe Tech International News and Notes **by Patricia Burke**
- **WCCA-TV: Tech Safe 40:** Allan Brennan, Ireland IT Expert, Part 2
- **WCCA-TV: Tech Safe 39:** Allan Brennan, Ireland IT Expert, Part 1
- **WCCA-TV: Tech Safe 38:** Brenda Martinez, Fiber First LA
- August 6, 7 Safe Tech International News and Notes **by Patricia Burke**
- **Common Dreams:** The Great Global Computer Outage Is a Warning We Ignore at Our Peril **by Tom Valovic**
- **WCCA-TV: Tech Safe 37 Hybrid Car EMF-Injured,** Arlene Sanchez & Kevin Lorenzen
- **Burlington Buzz: Community Contribution:** Upclose & Personal with Nature **and** Spending A Day in Nature Near Burlington **by Ruth Rin**
- **July 1st Safe Tech International News and Notes:** WORLD EHS DAY, US Court Ruling, FL Fish
- **Hilltown Health:** Charlemont, MA Strengthens Their Telecom By-Law and Passes a Smart Meter Moratorium
- **June 14th Safe Tech International News and Notes:** Courtney and Amelia and Pittsfield
- **WCCA-TV:** Tech Safe 36 David DeHaas
- **WCCA-TV:** Tech Safe 35 Courtney & Amelia Gilardi
- **WCCA-TV:** Tech Safe 34 Idahoans For Safe Tech
- **WCCA-TV:** Tech Safe 33 Minneapolis for Safe Tech
- **WCCA-TV:** Tech Safe 32 Sidnee Cox Pt 2
- **Tech Safe International:** EMF/RF: 'Remembering Nearfield' May NYC Film Festival; Irish Film Freequencies; Canada; International EHS Day

- **Tech Safe International:** Citizen Science: Charlie's Garden and Family's Food vs. the Pittsfield Cell Tower; Spotify audio version **(56 min.)**
- **Health Freedom Radio:** Episode 8: Safe Technology with Cece Doucette **and** Shownotes
- **CHD.TV:** Wireless Intrusion with Pittsfield's Courtney Gilardi and Charlie Herzig
- **WCCA-TV: TechSafe 31:** Jenny DeMarco, Virginians for Safe Technology
- **WCCA-TV: TechSafe 30:** Reading List **of EMF Books**
- **Downtown Newsmagazine:** Our digital world: The toxic radiation health threat
- **TechSafe International:** Equinox Elephant in the Ecosystem: Dying Plants and Trees vs. Wireless Antennas**, by Patricia Burke**
- **WCCA-TV: TechSafe 29:** Doris Knick, Virginia Medical Freedom Alliance, Part 2
- **WCCA-TV: TechSafe 28:** Doris Knick, Virginia Medical Freedom Alliance, Part 1
- **Milford Daily News:** Franklin DPW director must pay $15G for accepting gifts. What he's accused of doing
- **MA State Ethics Commission:** Franklin DPW Director Robert Cantoreggi Pays $15,000 Civil Penalty for Violating Conflict of Interest Law
- **WCCA-TV: TechSafe 27:** 5G, Friend or Foe? **with Christina Zipps and Dr. Olle Johansson**
- **WCCA-TV: TechSafe 26:** Safe Tech Hawai'i **with Dr. Debra Greene**
- **Mommy Heal Thyself:** Wireless Risks & Safer Technology Solutions **with Dr. Michelle Gamble and Cece Doucette**
- **Good Morning CHD:** Teen Dangers**; Cece Doucette joins Sarah Kenoyer and Sarah Aminoff**
- **Greenfield Recorder:** Charlemont cell tower bylaws head to Town Meeting
- **Safe Tech International:** News and Notes **by Patricia Burke**
- **Activist Post:** Engaged Empathy and Informed Activism, Support Massachusetts Wireless Safety Legislative Bills – Five Second Action Item**, by Patricia Burke**

- **Spirit of Change Magazine:** Support Massachusetts Wireless Safety Legislative Bills With Five-Second Action Item**, by Patricia Burke**
- **WCCA-TV: TechSafe 25:** Pennsylvanians for Safe Technology with Dr. Donna DeSanto Ott
- **WCCA-TV: TechSafe 24:** EHS Challenged
- **Greenfield Recorder:** My Turn: EMF bills put protection from growing exposure on the table**, by Jonathan Mirin**
- **WCCA-TV:** TechSafe 23: Tech Safety Legislation
- **Berkshire Eagle:** Editorial year in review, Heated debates over the safety of cell towers
- **WCCA-TV:** TechSafe 22: California School Teacher Activist Sidnee Cox
- **Safe Tech International:** EMF/RF/5G Tale of Two Cities: CT Standing Up for the Community vs. Massachusetts AGO Favoring Telecom? **By Patricia Burke**
- **Berkshire Eagle:** The state disapproves of bylaws banning 5G in Great Barrington and Sheffield. Some residents are appealing**.**
- **Burlington Buzz:**Wireless Communication Facilities Bylaw Updates
- **Natural Awakenings:** Tips for Safe Technology Holiday Gifting
- **WCCA-TV:** TechSafe 21: EMF Refugee Susan Fama
- **WCCA-TV:** TechSafe 20: Senator Michael Moore on Smart Meter Bill
- **WCCA-TV:** TechSafe 19: Activist Leonore Alaniz
- **Canvas Rebel:** Meet Cece Doucette
- **Spirit of Change Magazine:** If We Ditched Our Cell Phones, Would We Find Ourselves Again? **By Patricia Burke**
- **CHD.TV:** Electromagnetic Radiation + Wireless Litigation
- **Greenfield Recorder:** Charlemont Planning Board may consider cell tower bylaw revisions

- **The Kennedy Beacon: Kennedy Stands Up to 5G, by Tom Valovic**
- **The Story Walking Radio Hour with Wendy Fachon:Environmentally-Safe Technology – Part 3, with Cece Doucette**
- **Safe Tech International: 5G Telecommunications Safety and Needing to Have (Real) Skin in the Game, by Patricia Burke**
- **Greenfield Recorder: My Turn: Stand up to 'smart' meters by Jonathan Miren**
- **WCCA-TV: TechSafe 18 Smart Meter Harm with Ken Gartner**
- **WCCA-TV: Tech Safe 17 Smart Meter Harm with Steven Drury**
- **WCCA-TV: Tech Safe 16 Smart Meter Harm with Mana Washio**
- **WCCA-TV: Tech Safe 15 We Are Not SAM with Rinat Strahlofer**
- **WCCA-TV:Tech Safe 14 Screens and Eye Damage with Dr. Holly Groh**
- **The Epoch Times: The Unsettling Rise of Microwave Syndrome**
- **WCCA-TV: Tech Safe 13 FCC Lawsuit & Healthy Tech at Home with Theodora Scarato, MSW**
- **WCCA-TV: Tech Safe 12 Medical Inroads with Dr. Lisa Nagy**
- **WCCA-TV: Tech Safe 11 New York City with Odette Wilkins**
- **WCCA-TV: Tech Safe 10 Inroads in Pittsfield with Courtney Gilardi**
- **CHD.TV: 15-year-old Activist Stands Up to Big Telecom**
- **The Defender: Lawsuit Over Verizon Cell Tower Can Proceed, Judge Rules**
- **Spectrum News: New ruling empowers Pittsfield Board of Health to take up cell tower issue**
- **Berkshire Eagle: Cell tower legal fight narrows**
- **WBSM Barry Richard Show, June 7, 2023 Hour 2, Min. 24-40: Mandatory Smart Water Meter Upgrade in Fairhaven, MA; Hour 3, Call-in Comments**

- **WCCA-TV:**TECH SAFE 9: EMF Medical Conference
- **Safe Tech International:** EMF/RF/5G Massachusetts: Historic Sudbury and Lenox – On the Wrong Side of History?
- **WCCA-TV:** Tech Safe 8 Keene NH
- **Berkshire Eagle:** Don't leave landline users behind
- **iBerkshires: Letter:** Night of the Living Voting Clickers
- **WCCA-TV:** Tech Safe 7 Inroads In Edgartown pt.2
- **Telegram & Gazette:** Massachusetts legislators consider 36 public health measures; The measures heard by Massachusetts legislators veered widely from creating ways to identify and codify health care deserts to establishing electromagnetic disease as a public health threat.
- **WCCA-TV:** Tech Safe 6 Inroads In Edgartown pt.1
- **The Defender:** Two Massachusetts Towns Call a Halt to 5G Towers Until FCC Complies With Court Order to Review Science
- **Common Dreams:** Big Tech Companies Are Becoming More Powerful Than Nation-States, **by Tom Valovic**
- **Berkshire Edge:** Great Barrington residents will vote on 42 articles for this year's annual town meeting
- **Safe Tech International:** EMF/RF/5G Cell Towers at Schools? Massachusetts Town Meeting Votes, For or Against Safety, **by Patricia Burke**
- **WCCA-TV: Tech Safe 5:** Inroads in Upton
- **WCCA-TV: Tech Safe 4:** Sheffield, Great Barrington & Upton Warrant Articles
- **Safe Tech International:** Earth Day & How the Environmental Movement Went Off the Rails, **by Patricia Burke**
- **WCCA-TV:** Tech Safe 3: Public & Eco Safety

- **Berkshire Eagle** Letter: Second set of eyes needed on Lenox wireless bylaw
- **Berkshire Eagle** Letter: Don't contribute to polarization in Lenox over cell tower bylaw
- **Berkshire Eagle** Letter: A plea for cell tower safety
- **WACA-TV:** Select Board Public Comment from Cece Doucette
- **WCCA-TV:** Tech Safe 2: Safer Solutions
- **Upton Community Television:** Be My Guest with Cece Doucette
- **The Defender:** Locked in Battle With Verizon Over Cell Tower, Residents of Massachusetts Town Await Judge's Decision
- **Activist Post:** Residents Who Sued Verizon over Cell Tower Making Them Sick Await Judge's Ruling
- **WCCA-TV:** Tech Safe 1: Wireless Risks
- **Spirit of Change Magazine:** FCC Should Revisit Exposure Limits For Radio Frequency Radiation
- **MetroWest Daily News:** FCC should revisit exposure limits for radio frequency radiation
- **The Defender:** Helium 5G: Promoters Call It 'The People's Network' — But Who Really Profits?
- **Berkshire Eagle:** Lenox Wireless Zoning Bylaw is too important to not get it right
- **Berkshire Eagle:** Will Sheffield be the first Berkshire town to keep telecom and 5G in check? It's up to voters
- **Berkshire Eagle:** Is better cell coverage in Lenox a non-starter? Town planners to try again for a wireless bylaw
- **Safe Tech International:** The Alarming Link Between the Ohio Train Derailment's Vinyl Chloride Leak and Smart Meters: A Mercenary Scientist Dictating Public Policy **by Patricia Burke**

- **Natural Blaze:** Not Smart Smart Meters **by Patricia Burke**
- **The Defender:** Don't Want a Smart Meter? Take It Up With Your State Lawmakers, Experts Say
- **Berkshire Eagle:** Pittsfield cell tower opponents have found an ally in the Massachusetts Association of Health Boards
- **Berkshire Eagle:** Letter: Lenox should stay the way it is
- **Berkshire Eagle:** Our Opinion: More local debates on 5G signal need for fact-finding, better guidance from state
- **Berkshire Eagle:** Sheffield wants to ban 5G wireless until health questions are resolved. Will the town be able to stop it?
- **The Westfield News:** Proposed Cell Tower Denied
- **The Defender:** Why Smart Meters Are Good for Utility Companies, Bad for Consumers
- **Berkshire Eagle:** Lenox should consult with another attorney on cell tower issue
- **Berkshire Eagle:** Celebration Focuses on Importance of Water as Critical Resource
- **And So It Flows Podcast:** Cell Towers And Water
- **Berkshire Eagle, Opinion:** More cell tower spats highlight the need for better guidance; **Wire America** Berkshire Eagle Opinion Piece Refuted
- **Safe Tech International:**EMF/RF Free Monthly Educational Webinars, Cece Doucette: "Wireless Technology Risks and Safer Solutions"
- **WNYT-TV:**Berkshire County residents say no to 5G
- **Berkshire Eagle:** Sheffield wants to ban 5G wireless until health questions are resolved. Will the town be able to stop it?
- **Safe Tech International:** EMF/RF Abraham, Martin, and John, Didn't you love the things they stood for? - Safe Tech International **by Patricia Burke, including a cell tower proposed at the Canton Fish and Game**

- **Berkshire Eagle:** A Berkshire Superior Court judge will hear arguments on whether to dismiss a lawsuit over a controversial Pittsfield cell tower
- **Safe Tech International:** EMF/RF/5G Reassessing News of Whale Beaching, Alzheimer's Brain Plaque, and 'Sick Leader' Syndrome, **by Patricia Burke**
- **Safe Tech International:** Another Nightmare Before Christmas: "Smart Meter Catches Fire, Utility Company Denies Homeowners' Damage Claim" **By Patricia Burke**
- **Safe Tech International:** Are Girl Scouts Teaching Young Girls to Promote Business Practices That May Harm the Environment; GMOs; Palm Oil; and Now 5G? **By Patricia Burke and Sarah Aminoff**
- **Safe Tech International:** 'Smart' Meters, Faster Storm Outage Restoration? Safe? Secure? Reliable? – Not! Maine and Virginia **By Patricia Burke and Ed Friedman**
- **Safe Tech International:** EMF/RF/5G: Ötzi vs. SAM; Does Frozen 5300-Year-Old Man Offer More to Wireless Science Than Industry "Safety" Tests? **by Patricia Burke**
- **Natural Blaze:** Big Tech, 5G, Students, Women & Children; Education, Indoctrination Or Exploitation? **By Patricia Burke**
- **Spirit of Change:** Good News Headlines 12/14/2022
- **Berkshire Eagle:** Our Opinion: Pittsfield City Council is right — we need more robust regulatory guidance on cell tower safety disputes
- **Berkshire Eagle:** Lenox Wireless Bylaw Fails Town Meeting
- **WAMC:** Opponents to a new cell tower zoning bylaw in Lenox, Massachusetts blocked its passage at a special town meeting Thursday night
- **Berkshire Eagle:** Lenox board makes final tweaks to rules on cell facilities, ahead of Thursday's vote
- **Berkshire Eagle:** Letter: Why we're voting no on Lenox wireless bylaw
- **Berkshire Eagle:** Letter: My reasons for voting against Lenox cell tower bylaw
- **Berkshire Eagle:** Letter: I don't think Lenox bylaw protects residents enough

- **Berkshire Eagle:** Letter: Lenox wireless bylaws do need an update, but a safer one
- **Berkshire Eagle:** A proposed bylaw regulating wireless facilities in Lenox has prompted vigorous opposition. Will these concessions win enough votes?
- **Berkshire Eagle:** Letter: Keep cell towers out of downtown Lenox
- **Berkshire Eagle:** Letter: Lenox cell bylaw doesn't do enough to protect residents
- **Berkshire Eagle:** Letter: Why I'm voting no on Lenox's cell tower bylaw
- **Berkshire Eagle:** For a wireless zoning bylaw, fierce debate continues ahead of a town meeting vote. At stake: Widespread signal gaps in parts of Lenox.
- **Berkshire Eagle:** Letter: Voters in Lenox should not approve new wireless bylaw
- **Berkshire Eagle:** A wireless bylaw to improve cell reception? Debate intensifies in Lenox as opponents urge caution
- **Berkshire Eagle:** Can't get a cell signal in Lenox? Town planners aim to bring a wireless policy bylaw to voters next month
- **Berkshire Eagle:** Letter: Why I oppose Lenox's new cell tower bylaw pitch
- **iBerkshires.com:** Pittsfield City Council to Revisit Cell Tower Conversation Next Week
- **Natural Blaze: EMR/RF/5G/Wireless:** Consequences of a Vacuum "When Rightful Proportions Are Exceeded" **by Patricia Burke**
- **Berkshire Eagle:** Bylaw reception fuzzy **(Lenox)**
- **Mass Live:** ***Springfield students flip on phone pouches, now saying program works***
- **Safe Tech International:** EMF/RF/5G Acupuncture and EHS/Microwave Illnesses; A Chinese Medicine Expert Perspective on Stages of 'EHS' **by Patricia Burke**
- **Green Street News:** The Unwanted Cell Tower **(and artificial turf ban in Boston)**
- **Berkshire Eagle:** Cell tower opponents say city attorneys have a conflict of interest. And they want a judge to rule in their favor against Verizon
- **iBerkshires:** Pittsfield Residents File New Litigation Over Cell Tower

- **Acupuncture Today:** [EMF/RF/EHS and How I Broke My Nose on the Acupuncture Table](), **by Patricia Burke**
- **Patricia Burke:** [Tinnitus Review Update - JAMA declined this letter, so TechSafe International published]() **(note: see** [additional comments]() **written by Belgrade health experts Dr Ninoslava Dragutinović (PhD), ENT- audiology, Dr Slavica Simić, pediatrician-neonatologist, Milan Rogulja, president of the Citizens' Association BIOGEN, Belgrade)**
- **Patricia Burke:** [Request for 'Psychology Today' to Retract 'Conspiracy Theory Expert' View of 'Electrohypersensitivity']()**, (features comments by Sharon Noble of** [Coalition to Stop Smart Meters in British Columbia]() **and the importance of citizen science in identifying regulatory gaps)**
- **Patricia Burke:** [EMF/RF/5G; Tin Foil Hats, Meridians, Glymphatics, and Heads That Are Not Layer Cakes]()
- **Patricia Burke:** [When It Comes to EMF/RF/5G, Are We All Storrowing?]()
- **Patricia Burke: IN DEFENSE OF CRICKETS SERIES**
  [Part 1 of 3: Havana Syndrome, and Irradiation of Diplomats; 1950s, 1970s, 2000s](), **featuring Don Maisch**
  [Part 2 of 3; EMR Australia: Wireless Radiation, Hearing Problems, and Havana](), **featuring Lyn Mclean of EMR Australia**
  [Part 3 of 3; Havana, Internal Electric Fields, Kilohertz Frequencies, Cell Signaling, & Sub-Carrier Waves](), **featuring Paul Harding**
- **Common Dreams:** [The Spoils of War: Why Boston is No Longer the "Athens of America"]()
- **Cranston Herald:** ['It's always falling on deaf ears'; Residents claim microwave radiation concerns are met with little response from elected officials]()
- **CHD.TV: 'Good Morning CHD' Episode 127:** [Our Children Aren't Guinea Pigs for Big Tech,with Cecelia Doucette]()
- **Piti Theatre's 4-Minute Spoof:** [Our Musk Who Art in Heaven]() **with Jon Mirin**
- **Just Think, The Podcast:** [Episode 65: The Facts on 5G]() **with Cece Doucette**

- **Berkshire Eagle:** Verizon cell tower opponents hope to air their case before the state's highest court
- **iBerkshires.com:** Pittsfield Board of Health Considers Subcommittees**; receive award from Americans for Responsible Technology**
- **iBerkshires.com:** Shacktown Residents File Suit Against Pittsfield Over Cell Tower
- **TechSafe International:** Why Educated Parents ARE Concerned About EMFs
- **Spectrum News 13:** 'There's a sense of urgency that's lacking:' Pittsfield residents sue city over lack of action on cell tower health concerns
- **Children's Health Defense:** Pittsfield Massachusetts Residents File Suit Over Verizon Cell Tower Injuries
- **Berkshire Eagle:** UPDATED: Legal action by Pittsfield cell tower opponents names Mayor Linda Tyer
- **Greenfield Recorder:** My Turn: One night only! The Safe Cell Tower Show returns to Buckland
- **Professional Pilot:** 5G and electromagnetic fields. With more bandwidth, EMFs become stronger.
- **Greenfield Recorder:** My Turn: The cell tower hit list — Heath, Ashfield, Rowe, Colrain, Otis, Buckland and tonight … Conway (again!)
- **Good Morning CHD:** 'Good Morning CHD' Episode 80: Invisible Poisoning — Wireless Radiation + Advocacy With Cecelia Doucette

**Natural Blaze:** Pittsfield Tower Update, If Only Amelia and Her Family Were French Cows!

- **Instagram:** Cell Phone Fine Print Warning **(740,000+ views)**
- **Hill Country Observer:** The cost of connectivity? Cell tower dispute puts Pittsfield at center of a national debate
- **Éditions du 21e siècle Inc.:** Evicted by a Cell Tower

- **CHD.TV:** ‘Tea Time’ Episode 40: Reducing Your Risk of Wireless Radiation Exposure with Cecelia Doucette of Massachusetts for Safe Technology
- **Daily Hampshire Gazette:** Dorothy Baker: Day marks electromagnetic sensitivity
- **Cape Cod Times:** Neighbors of cell phone tower inside Centerville church steeple complain of health issues
- **iBerkshires:** Pittsfield City Council Puts Verizon Cell Tower Litigation to Rest; approves World EHS Day Resolution
- **The Reading Post:** LtE: World EHS Day!
- **It’s Pittsfield Tonight:** Michael Daly asks why the mayor has not protected the citizens from the South Street cell tower
- **The Defender:** Massachusetts Town Gives Up Fight Against Verizon Cell Tower That Residents Allege Caused Illness
- **Berkshire Eagle:** Pittsfield Health Board Rescinds Verizon Cease and Desist Order
- **iBerkshires.com:** Pittsfield Cellular Telephone Co. v. Board of Health of the City of Pittsfield
- **Berkshire Eagle:** Verizon Wireless files federal lawsuit against Pittsfield Board of Health to block cell tower order
- **CommonWealth:** David vs. (Verizon) Goliath in Pittsfield, Board of Health blames cell phone tower for illnesses
- **Berkshire Eagle:** Concern over cell tower’s visual impact eases after balloon test in Otis
- **Berkshire Eagle:** New cell tower project unsettles Big Pond residents in Otis
- **iBerkshires.com:** Pittsfield City Council to Decide $84K for Cell Tower Attorney
- **Berkshire Eagle:** Pittsfield Board of Health requests $84,000 for lawyers' help in pursuing cease-and-desist order against Verizon Wireless' use of South Street cell tower
- **WTBR’s Morning Drive:** Bill Sturgeon with Courtney Gilardi on Verizon Cell Tower

- **Berkshire Eagle:** The Pittsfield Board of Health issued a cease-and-desist order to Verizon. Now it's looking for an attorney to back it up
- **Environmental Health Trust:** The First Cease and Desist Order Against Verizon Cell Tower to be Sent on Friday by Board of Health Pittsfield, MA
- **iBerkshires:** Pittsfield Health Board Seeking Funds to Stop Cell Tower
- **Martha's Vineyard Times:** Dr. Lisa Nagy Named to Health Council, **discusses MA Medical Society EMF policy statement**
- **Environmental Health Trust:** Illness Reported After Cell Antennas Installed at Berkshire Community College
- **Berkshire Eagle:** Pittsfield Expert EMF Panel on Risks of Wireless Technology
- **CHD-TV/Moms Across America: The Empower Hour with Zen Honeycutt, Deb Hodgdon and Cece Doucette** Cell Tower Fight Wins & Challenges with Wireless Radiation
- **iBerkshires:** Pittsfield Board of Health Continues Push to Remove Verizon Cell Tower
- **Greenfield Recorder:** Ko Festival opens 2022 with Piti Theatre's 'Canary in a Gold Mine'
- **Environmental Health Trust:** A MUST WATCH FILM: PITI THEATRE'S "CANARY IN A GOLD MINE" STREAMING AVAILABLE ON DEMAND
- **iBerkshires.com:** BoH Moving Forward with Verizon Cease and Desist Order **(follows mask mandate story)**
- **Berkshire Eagle (unsigned) Editorial:** Our Opinion: Pittsfield Board of Health's cease-and-desist ultimatum to Verizon is not worth the risk **and** Dr. Kent Chamberlin's science-based response **in support of the order**
- **Healthier Tech Podcast:**Achieving EMF Regulatory Change in the US feat. Cece Doucette
- **Live959.com:** This Western Massachusetts High School is Banning Smartphones on Campus

- **Greenfield Recorder:** My Turn: It's time to regulate radio frequency exposure by Kirstin Beatty
- **Daily Hampshire Gazette:** Guest columnist Kirstin Beatty: It's time to regulate radio frequency exposure
- **Berkshire Eagle:** Mask mandates and a potential cell tower lawsuit will keep the Pittsfield Board of Health busy this week
- **Physicians for Safe Technology:** Board of Health Votes to Order Verizon to Cease and Desist in Pittsfield Massachusetts Cell Tower Battle
- **The Defender:** Massachusetts Town Threatens Verizon With Cease-and-Desist Order Over Cell Tower
- **Berkshire Eagle:** Cease and desist: Pittsfield Board of Health gives Verizon ultimatum over cell tower
- **iBerkshires.com:** Pittsfield Health Board Ordering Verizon to Remove Cell Tower
- WAMC: Pittsfield board of health issues conditional cease and desist order to Verizon over cell tower
- **WAMC:** Pittsfield city council approves police jujitsu program, hears cell tower concerns at second meeting
- **The Falmouth Enterprise:** Op-Ed: Massachusetts Agency Should Step Up to Local Broadband Development
- **Berkshire Eagle:** Look Ahead, Pittsfield: A look at the topics returning before city leaders in 2022; **The tower on the hill**
- **Natural Blaze:** EMF/RF/5G/ IOT/IOUT Swedish Institute For Human Rights: EHS (Microwave Illnesses, Due To An Inaccessible Environment)
- **CBS Boston:** Airlines Warn Of Possible Delays From New 5G Towers; Logan Airport Could Be Impacted
- **Natural Blaze:** EMF/RF/5G IOUT Unscientific Science of Twelve Ways We Cannot Annihilate the Oceans with EMF in 2022

- **Natural Blaze:** EMF/RF/5G/IOUT Solstice 2021: Amelia's Night(mare) Before Christmas
- **Inside Towers:** Pittsfield Struggles to Disconnect
- **Boston.com:** What to know about the shutdown of 3G cellular networks
- **Berkshire Eagle:** Appeals court is about to hear argument that a judge erred in Pittsfield cell tower lawsuit
- **iBerkshires.com:** Pittsfield Health Board to Make Action Plan for Cell Tower
- **Berkshire Eagle:** New approach considered for Verizon cell tower (second report, after COVID story)
- **Boise, Idaho City Council:** Residents, Verizon, and Cece Doucette offer public comment on the need to update wireless zoning ordinance
- **Greenfield Recorder:** My turn: Wireless whack-a-mole Continues in Ashfield and Heath
- **Ashland Local Town Pages:** Technology Safety for the Holidays: Ashland Resident Tells How to Avoid Health Risks
- **WWLP-22News:** Wireless technology impacts bill again gets committee nod
- **Natural Blaze:** EMF/RF/5G Thanksgiving; Addressing Past Colonization, Our Militarized Present, and the Future Underwater Internet of Things, Part 1 of 3

  Part 2 of 3

  Part 3 of 3: **Includes petitions to sign.**
- **Upton/Mendon Town Crier:** Milford Residents Start EMF Impact Grassroots Campaign
- **Milford Town Crier:** Milford Residents Start EMF Impact Grassroots Campaign
- **WCCA TV "Soapbox":** Mauro DePasquale, Patricia Burke and Courtney Gilardi discuss cell towers, wireless radiation effects, international safe technology groups and more
- **Common Dreams:** Why We Should Reject Mark Zuckerberg's Dehumanizing Vision of a "Metaverse" **by MA resident Tom Valovic**

- **Americans for Responsible Technology:** Pittsfield, MA Residents Furious, Sue Over New Cell Tower
- **PCTVSelect:** City Councilors on Sickness from 877 South St. Cell Tower;
  Peter Marchetti Addresses the Verizon Cell Tower Issue;
  Ward 4 Candidates Share Thoughts: Take Down the Tower
- **Berkshire Eagle:** Letter: Hopefully Lenox will follow Pittsfield's cell tower moves
- **Berkshire Eagle:** Pittsfield City Council to ask state attorney general to review South Street Verizon cell tower
- **iBerkshires.com:** Pittsfield Council to Send AG Letter About South St. Cell Tower
- **Berkshire Eagle:** Appellate Brief in Pittsfield Cell Tower Case; **Verizon, Farley-White Corporation, and individual members of Zoning Board of Appeals sued**
- **Berkshire Eagle:** Nearly a Year Later, Pittsfield Cell Tower Lawsuit Awaits Decision on Appeal
- **Natural Blaze:** When Local Media Goes To The Dark Side On 5G/EMF/RF; Berkshire Eagle's Unsigned Opinion; Ken Gartner's Response
- **iBerkshires.com:** Farley-Bouvier Cites Pittsfield Cell Tower in State Legislative Hearing
- **PCTV:** Board of Health Meeting 10/6/21, public comment and deliberations begin at 12:50
- **Spectrum News 1:** 'We're very hopeful:' Pittsfield Board of Health asks Verizon to take down controversial cell tower
- **The John Krol Show:** Traction on 5G Cell Tower Fight
- **Berkshire Eagle:**Pittsfield Board of Health asks Verizon to remove or relocate controversial South Street cell tower
- **WCCA Worcester Cable:** Smart Meter Update with Patricia Burke
- **Natural Blaze:** "Climate Anxiety" Vs. Those Underwater From EMF/RF/5G Devastation: Who Controls Activism Focus? The Corporatocracy

- **Berkshire Eagle: Lenox planners:** We need help on cell tower issues
- **Berkshire Eagle:** Lenox planners sidetrack new wireless bylaw
- **Berkshire Eagle:** Verizon Joining Meeting with Pittsfield Board of Health
- **Natural Blaze:** Massachusetts Smart Meter Update — Past Efforts And Current Proceedings
- **Inside Towers:** New Hampshire Professor Claims FCC 'Not Protecting Us' **(Lenox, MA)**
- **Gloucester Daily Times:** Hi-tech meters could hike electric bills
- **The Salem News:** Letter: Don't pass meter costs on to consumers
- The Story Walking Radio Hour with Wendy Fachon: Environmentally-Safe Technology Part 2, Guest: Cecelia (Cece) Doucette
- **Spirit of Change Magazine:** EMF Fields Update **with engineer Ken Gartner**
- **Spirit of Change Magazine:** 5G: The Inconvenient Truths About Wireless Technology — An Interview With Cece Doucette
- **The Diana Montford Show:** Wireless Technology Risks & Safer Solutions, Especially for Parents
- **Berkshire Eagle:** Researcher cites 'significant risks' of cellphone radiation in presentation to Lenox Board of Health
- **iBerkshires.com:** Pittsfield City Council Increases Abutter Zoning Notifications
- **Story Walking Radio Hour:** ENVIRONMENTALLY SAFE TECHNOLOGY **(podcast) with host** Wendy Fachon **and guest Cece Doucette**
- **WCVB News:** Dozens evacuated from Belmont condo after cracks discovered**; heavy cell equipment on roof and sides of building**
- **Natural Blaze: Patricia Burke's** August Harvest Series
- **WBTRs Morning Drive:** 5G and Radiation from Cell Towers, Cell Phones and Wireless Communication with Kent Chamberlin, PhD, and Courtney Gilardi

- **Lenox Selectboard Meeting July 14, 2021, citizen comment on the proposed cell antennas on The Curtis elderly and disabled housing; additional comments here**
- **Natural News: Patricia Burke published a dozen articles in her Independence Day 5G series:**
  **Independence Day 5G; "Space Alert" Monthly Live Stream**

  **Independence Day 2021, 5G Concerns – One Picture, One Map, One Graph, and 81,000 Dead Whales and Dolphins. Per Year.**

  **Independence Day 5G: A Funny Thing Happened on the Way to 5G, Warfare, and Battlefield Injuries**

  **Independence Day 5G ICNIRP – Flying Blind, No Brakes? No Guardrails? No Seatbelts? No Health Codes? No Scrutiny? No Environmental Research?**

  **Independence Day 5G/EMF/RF Concerns: I Know, But … Protesting Wireless Technologies on Behalf of People and Nature**

  **Independence Day/5G Needs: Step Away From "Bright Green Lies;" Insight, Book, Film, Petition, Community**

  **Independence Day /5G, Separating Benefits & Risks of Wired Vs. Wireless Technologies If We Are Serious About Health, Human Rights, Environmentalism**

  **Independence Day 5G/EMF/RF; Schools, Rules, and Throwing Student Health Under the Bus**

  **Independence Day 5G: Riffing On the 4th of July, Reflections on Meeting the Challenges of Our Times**

  **Independence Day/5G: Is Everyone Electrosensitive?**

Massachusetts for safe TECHNOLOGY

**Independence Day/5G: The FCC & RF Exposure Guidelines, Internal Controls: The Case for Gross Negligence — Lack Of Independence**

**Independence Day 5G IOT – Not For the Birds? Or Bees Or Trees Either?**

- **Washington Post:** The ugly side of 5G: New cell towers spoil the scenery and crowd people's homes references the lawsuit over small cells in Hull, MA
- **Berkshire Eagle: Health Impact of New Cell Tower Remains Unclear Pittsfield Officials Say**
- **Light Reading: Small cells head to the 'burbs – reports on wide networks of small cells in Boston and elsewhere**
- **Berkshire Eagle: Debate Over Cell Tower Safety Returns to Pittsfield Health Panel with New Report in Hand**
- **Oregon Health Authority: An emergency law tasked OHA to investigate the health effects of wireless radiation and advise on technology safety in schools. A scientifically sound draft was submitted, then an OHA administrator deleted the science showing harm in the final report. Courtney Gilardi from Pittsfield, MA testified at an OHA Policy Board hearing as living evidence of the harm. See two-minute testimonies from Ms. Gilardi, and others who expose further corruption with the OHA report.**
- **The Defender: 67 Groups Representing More Than 1 Million People File Amicus Brief in Support of CHD's Lawsuit Against FCC; MA for Safe Technology included**
- **2002 Flashback: Lenox, MA is looking to put cell antennas on The Curtis senior residence in 2021, and a similar plan was rejected in 2002: Lenox board rejects Curtis Building cell antenna proposal**
- **Berkshire Eagle: Look Ahead, Pittsfield: Sealed and delivered, via certified mail**
- **Natural Blaze Father's Day Series with Patricia Burke and Others:**

**Chuck And Drew; Real Men Listen To Their Bodies; & Protect Their Health, Their Families, Their Homes**

Massachusetts for safe TECHNOLOGY

Real Men Realize Cell Towers Don't Belong In Neighborhoods, Jeff

Real Men Do Not Deny Real Harm From Microwaves

All I Really Need To Know About EMF I Learned After My Wife Got Sick: Brief History of Electrosmog: Jonathan

In Memoriam — Lance McKee, Dr. William Maykel

Communicators — Honorable, Honest, Real Men; Mauro D., David C.

"A Few Good Men" — Real Men Who Courageously Swim Against the Tide; David C., Leif S., Lennart H.

Real Engineers and Real Epidemiologists Agree — Dirty Electricity Is Harmful; Sam Milham And David Stetzer

Real Researchers, Healers, Doctors; No Mercenary Science Or Lies — Dr. De Kun Li, Henry Lai, Dr. Dietrich Klinghardt

Real Research, Real Compassion, Real Science: Pioneering Neuroscientist Dr. Olle Johansson Tribute

Real Men Do Not Deny Real RF Risks — Peter S., Frank C., Louis S., Karl G., And Joel M.

Real Men And Real Scientists Know That RF/EMF Safety Limits Are Too High — The Late Martin Blank, And "R" Ari Blank

Real Military-Trained Experts Who Warn That The "Science" And Data Is Weaponized, Jerry F., Barrie T.

Paul Harding, Total EMF Solutions — Real Men Know That Microwave Sickness Is Real

- **WTBR-FM's 'Morning Drive':** Pittsfield cell tower with Dr. Paul Heroux and Courtney Gilardi
- **Berkshire Eagle:** Report on Pittsfield cell tower emission levels expected next week
- **Berkshire Eagle:** Pittsfield health officials want audience with Verizon about disputed cell tower
- **iBerkshires:** Pittsfield Health Officials to Contact Verizon About South Street Cell Tower
- **Natural Blaze: 5-Part Memorial Day Series including:**

  Wireless, Surveillance, & Warfare, The FCC, And The Military Budget In 3 Graphs Not Including The FCC

  Havana" Stories: Invisible, Uncounted Microwave Injured Civilians And Vets Conclusion: Part 1 Of 2

  Havana" Stories: Invisible, Uncounted Microwave Injured Civilians And Vets Conclusion: Part 2 Of 2

  Wireless, Surveillance, & Warfare — Why We Must Ban Killer Drones

  5G AND THE MILITARY — Marriage Made In Hell
- **Spectrum News1:** Pittsfield cell tower could cause harmful health effects, experts say
- **iBerkshires:** Pittsfield Residents, Officials Frustrated With Cell Tower Action Plan
- **Natural Blaze:** 5G EMF/RF Mother's Day 2021; I Don't Want Flowers And Chocolates For Mother's Day. I Want Policy Change And Protections
- **Spectrum News:** Neighborhood residents say Pittsfield cell tower causing health concerns
- **Berkshire Eagle:** Pittsfield seeks tests of South Street cell tower radiation
- **Berkshire Eagle:** Vote halts proposed cell tower for Big Pond area in Otis

- **Berkshire Eagle:** No forum. No health study. Did Pittsfield oversell DPH help with cell tower concerns?
- **Press release:** Pittsfield Urged to Hire V-COMM to Test Cell Tower
- **Natural Blaze:** 5G Earth Day Countdown: Children — Amelia's Terrible, Horrible, No Good, Very Bad Cell Tower Days
- **The Hull Times:** Beware The Effects Of Wireless Tech On Your (And Your Children's) Health
- **Natural Blaze:** 5G Earth Day Countdown, More Wireless! How Do The Bees Vote?
- **Burlington Union:** Proposed 5G installation to be discussed at April meeting
- **iBerkshires.com:** Williamstown Zoning Board Contemplates Cost of Denying Cell Tower Permit
- **Daily Hampshire Gazette:** Guest columnist Christine Olson: The costs of wireless technology **(Northampton)**
- **Environmental Health Trust:** Family Injured by Cell Tower Radiation in Pittsfield, Massachusetts
- **Berkshire Eagle:** Toxicology experts with state DPH tapped to probe Pittsfield cell tower health complaints
- **iBerkshires.com:** Pittsfield Council Wants Update on Cell Tower Health Concerns
- **Berkshire Eagle:** Pittsfield health official says city lacks 'expertise' to probe cell tower complaints
- **Patch, Letter:** Water Tower Issue Proves Alvarado Is Right For Reading
- **Natural News:** Why Question 42,000 SpaceX Satellites? Lots Of Reasons! 5, 4, 3, 2, 1, Countdown To March 19/20th 2021 Global Protest – Part 5 **(with links to Parts 1-4) by Patricia Burke**

- **Greenfield Recorder: The dangers of cell towers: an abbreviated version of a letter Dr. David O. Carpenter submitted to the Ashfield Planning Board about an AT&T cell tower application**
- **Westfield News: Proposed cell tower denied (Southwick, MA)**
- **Barnstable Patriot: Ells: Barnstable unlikely to appeal federal court T-Mobile ruling; Centerville Concerned Citizens seeks guidelines for future 5G installations**
- **iBerkshires: Pittsfield Health Officials to Investigate Cell Tower Complaints**
- **Common Dreams: A Closer Look at the AI Hype Machine: Who Really Benefits? by MA resident Tom Valovic**
- **WCCA: Mauro DePascuale interviews Cece Doucette on the risks involved with 5G technology, 'smart' meters and safe technology solutions including the EMF Medical Conference.**
- **Dr. Phil interviews Dr. Lisa Nagy of Martha's Vineyard regarding a gentleman's complex case, including electromagnetic illness. She is introduced at 34:00.**
- **Natural Blaze: Dr. Phil, Ball's In Your Court — TV Doctors, Patriarchy, Microwave Hearing, and Wireless Concerns, by Patricia Burke**
- **Spirit of Change Magazine: Is Wireless Technology An Environmental Health Risk? by Katie Alvord, Society of Environmental Journalists**
- **Greenfield Recorder: My Turn: More microwave radiation for Heath and Ashfield? by Jonathan Mirin**
- **The Landmark: Board delays smart meters, pending policy review (Holden)**
- **Activist Post: Peter Tocci article, "Giving Life the Electric Chair — The Plain Physics & Biophysics of Phone & WiFi Radiation"**
- **WCCA: Mauro DiPascuale interviews Cece Doucette on the groundbreaking New Hampshire legislative report recommending public protections from wireless radiation**
- **Enviro Show: Radio interview with Cece Doucette and Kirstin Beatty on the NH 5G report (42-min)**

- **Berkshire Eagle:** Pittsfield Board Continues Public Hearing on Cell Tower
- **Boston Globe:** Could your cell phone's electromagnetic field make you sick?
- **Boston25 News:** Plugged in: Too much screen time could be harming children's brains
- **Radio Free Berkshires:** Cell Tower Issues **(talk begins at 24:00)**
- **Berkshire Eagle:**Is that cell tower safe? Forum to look at 'biological risks'
- **Berkshire Eagle:** Bruised by cell tower fight, neighbors aim for citywide zoning reform
- **Gloucester:** Health impacts of 5G network on Board of Health agenda
- **Natural Blaze:** The Climate! Let's Do EVs! & Smart Meters! But Don't Look Behind The Curtain!
- **Greenfield Recorder:** A thousand-plus residents oppose 'smart' grid
- **My Southborough:** Selectmen reject proposal for redesigned flagpole; willing to let lease lapse
- **Cambridge:** Wins in lawsuit brought by ExteNet over denial of small cell applications
- **Gloucester:** Essex board rejects residents' cell tower bylaw proposal
- **Barnstable Patriot:** Candlelight vigil in Centerville; Residents press town to appeal T-Mobile cell tower ruling
- **Worcester: WCCA Daily Breaking episodes** August 11 **and** August 13**, 2020 Mauro Pascuale and Cece Doucette discuss 5G, lawsuits vs. FCC, smart meters, safe technology; also on** facebook
- **Greenfield Recorder:** Online safely during COVID-19 and after
- **Spirit of Change Magazine:** Safe Tech Tips While Staying Connected During COVID-19 Shut-Down
- **Spirit of Change Magazine:** Info to Consider on 5G and the Coronavirus
- **Boston 25 News:** Verizon launches 5G service in Boston, but what are the potential drawbacks?

- **Cape Cod Times:** Major victory for Centerville cell antenna opponents
- **Wicked Local Concord:** Verizon told by Concord Select Board to look for alternative sites
- **RT America:** How to Survive Dangers of 5G
- **TCI Magazine:** Beware the Dangers from AM Radio and 5G Transmission Sites
- **Greenfield Recorder:** Hilltown Wi-Fi: gift or curse?
- **Hilltown Health:** Victory in Charlemont!
- **The Drs. Show featuring Dr. Lisa Nagy:** Can Someone Really be Allergic to Wi-Fi?
- **Wicked Local Concord:** Verizon told by Concord Select Board to look for alternative sites
- **Wired:** Cell Towers Battle for Belfry **(Concord)**
- **Wicked Local Burlington:** Verizon withdraws Burlington cell tower application
- **Burlington Cable Access News:** Verizon Drops Small Cell Wireless Booster Application in Face of Fees
- **Burlington Cable Access News:** In Depth: Potential Dangers of Wireless Tech; Burlington Small Cells Policy
- **Worcester News Tonight:** Kids & Wi-Fi Dangers
- **The Grafton News:** Proposed 143-foot cell tower in Grafton hits dead zone with area neighbors
- **Boston Magazine:** How a Verizon Cell Tower Began a Furious Debate in Wayland
- **O'Dwyer's:** Dangers of Wireless Radiation Addressed in five Mass. Bills
- **O'Dwyer's:** PR Pros, Heavy Cellphone Users, Need Awareness of Dangers
- **O'Dwyer's:** International Policy Precautionary Actions on Wireless Radiation
- **O'Dwyer's:** Health Advocates Express Concern about '4G' Radiation

- **WGBY:** EMF (Electromagnetic Fields) Bills in Massachusetts
- **The Boston Sun:** Small Wireless Antennas Are Causing a Stir in Neighborhoods Across Boston
- **Berkshire Eagle:** New water meters spark radiation fears in Housatonic
- **GoLocal Worcester:** Monfredo: Time For Everyone To Research The Health Affects Of Wireless Technology
- **WGBY:** Radio Frequency Protection
- **Worcester Magazine:** The Education Beat: Cell phones: protecting yourself and your children
- **GoLocal Worcester:** Monfredo: How Safe are the Electromagnetic Fields Emitted by Wireless Technology?
- **Worcester Telegram & Gazette:** Worcester school officials weigh risks of Wi-Fi signals
- **Worcester Telegram & Gazette:** Worcester schools draft warning on wireless devices
- **Boston25 News:** Ashland residents meet to discuss potential health risks of wireless radiation
- **Boston25 News:** Parents say school's Wi-Fi signal making son sick
- **Environmental Health Trust:** First US Public School District Limits Wi-Fi Radiation Exposure to Students and Staff
- **WCCA-TV:** Dangers of Wi-Fi
- **Boston Parents Paper:** Is Wi-Fi in Schools Safe? A Look at Potential Dangers
- **Wicked Local Ashland:** Ashland woman headed to State House to talk Wi-Fi safety

# Educational Events

We are excited at the prospect that HHS will take meaningful action to educate the public on EMF risks and safer technology solutions. We have hosted many events and spoken at numerous conferences but the information needs to get out widely to the public.

We would be honored to help educate the public as part of HHS's plans. See below for some of the educations opportunities in which members of Massachusetts for Safe Technology have participated in a leadership role.

**Low EMR Arts Event!**

**October 11, 3 p.m., Bloom Barn, 224 Avery Brook Road, Charlemont, MA**

Join us for an all-ages event! Dances + Live Music + Circus + Surprise Guests + Snacks. Bring warm clothes and a blanket if it's a cold day. Please leave all wireless devices turned off in your car to accommodate those with Electromagnetic Radiation Syndrome. Click to send email RSVP.

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**Expanding Awareness with Victor Venckus**

**October 10, 10-11 a.m., Boston College Radio, Chestnut Hill, MA**

Victor interviews Cece Doucette on live radio (**WZBC 90.3 FM Newton** and WZBC.org) to discuss wireless risks and safer technology solutions. They also share current opportunities for the public to file comment for real change with the Federal Communications Commission and Health & Human Services.

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**Polka Dot Powerhouse Celebration Conference**

**October 2-3, King of Prussia, PA**

Massachusetts for safe TECHNOLOGY

Cece Doucette joins the well-being panel at the national conference, to teach women wireless risks, and how to stay connected and protected.

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**Generation Zapped Film Screening and Discussion**

**Community Room - Sawyer Free Library, 2 Dale Avenue, Gloucester, MA**

Join advocate Cece Doucette for an insightful discussion on navigating technology safely in the digital age. **The event will begin with a viewing of Generation Zapped, followed by a discussion for the remainder of the event**. The film explores the hidden health and developmental impacts of daily exposure to wireless technology, offering practical ways to reduce overexposure in our homes and daily lives. This is especially timely as many citizens are noticing 4G/5G small cell antennas coming in at street level, and utility companies installing radiating "smart" meters on our homes.

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**Wireless Radiation Risks: Staying Connected & Protected**

**July 21, 1:30 p.m. ET In Person, Natick, MA, Community Senior Center**

Eversource and other utility companies are installing “smart” meters on our homes, but the science is showing they come with health and privacy risks. Come learn the impact on children and adults, including Electromagnetic Radiation Syndrome (EMR) symptoms to look out for. Bring your questions, and walk away with options we can all consider to stay connected and protected in today’s digital world. To RSVP, call 508-647-6540.

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**Summer Social!**

**July 12, 4- 7 p.m. ET In Person**

Join us in MetroWest Boston for an informal potluck pool party to meet one another, share our experiences, and celebrate inroads toward safe technology! Email MA4SafeTech@gmail.com to RSVP. Healthy dishes appreciated, bring your own beverages. We’ll move indoors if it rains!

Massachusetts for safe TECHNOLOGY

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**World EMR Syndrome Day, USA!**

**June 16, 2026, 7 p.m. ET via Zoom**

Join Courtney & Amelia Gilardi and Massachusetts for Safe Technology for our fifth annual World EMR Syndrome Day Forum! Over the past three years, we have joined others around the globe to raise awareness and educate policy leaders and the public about EMR Syndrome, also known as Electrohypersensitivity (EHS). This year, we are sharing our stories of harm and hope, as well as the steps we are taking for immediate, critical action!

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**Creating New Health Systems: A Better Way for the USA Conference**

**May 30-31, Warwick, Rhode Island**

We are delighted to announce this much-anticipated, unique two-day conference, seeking solutions to the challenges we presently face within the American healthcare system. The present medical and legal model is broken and now is the time to forge a new path towards healing for all. Speaking on EMFs, Dr. Beverly Rubik and Cece Doucette join internationally-renowned expert speakers from medicine – both allopathic and natural, science, law, entrepreneurs, policy experts and public officials.

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**Sunday Conversations: Massachusetts ME/CFS & FM Association**

**May 17, 2026 via Zoom**

Join Cece Doucette to learn about wireless risks and safer solutions. Learn safety tips for wi-fi, cell phones and utility “smart” meters.

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**National Health Federation Conference**

**APRIL 23-25, 2026 IN DALLAS, TEXAS**

Join health-freedom advocates, researchers, and leaders from around the world for three days of critical conversations shaping the future of health, science, and informed choice. Cece Doucette will speak on wireless risks and safer solutions.

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**Mind, Body & Spirit Evolution Expo**

**April 19, 2026, Grappone Coneference Center, Concord, NH,**

Over 50 Vendors, Workshops, Demos, Presentations and Wellness Sessions await you! Find gifts for yourself or your loved ones! Cece Doucette will host a tech safety booth and also present, *"Could Your Cell Phone Be Harmful? Ever get the feeling something's not right about being tech connected 24×7?"*

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**The People's Health & Freedom Forum**

**April 18, 2026, Oxford, MA, $89**

A powerful one-day conference bringing together an exceptional lineup of speakers at the forefront of change. This immersive, full-day event will combine eye-opening education with real-world solutions, equipping attendees with the knowledge, tools, and connections needed to strengthen health rights across our region.  Cece Doucette will present wireless risks, solutions and inspirational actions citizens are affecting!

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**Smart Meter Informational Session**

**March 23, 6 p.m., Lee, MA Middle & High School Auditorium**

Thank you to the Lee Select Board for hosting this free public informational forum. Click below to see slides and presentations by representatives from Eversource, Massachusetts for Safe Technology, and an Electromagnetic Radiation Specialist:

**CLICK HERE to view Jared Lawrence's slide presentation (Eversource)**

**CLICK HERE to view Cece Doucette's slide presentation (MA for Safe Technology)**
**CLICK HERE to view Rex Funk's slide presentation (Healthy Homes Specialist)**

**CLICK HERE to watch the forum recording, including extensive Q&A!**

See also Lee Select Board discussions and presentations leading up to this forum.

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**Framingham Rotary Club**

**March 23, 12:15 p.m., Plymouth Church 87 Edgell Road + Zoom**

A member recommended Cece Doucette serve as guest speaker to present Wireless Risks and Safer Technology Solutions. An international expert panel presentation was held in this same location in 2015:

- Dr. Devra Davis, Ph.D in Framingham, MA talks about wireless radiation
- Frank Clegg, retired Microsoft Canada President, speaks on what industry and other countries are doing, including France's ban on wi-fi in preschools
- Child Psychologist, School Consultant, Researcher and Author Dr. Catherine Steiner-Adair speaks of the developmental, social and emotional impact technology is having on our children
- Dr. R.S. Sharma from India discusses health and environmental impacts of mobile phones and other wireless devices
- Janet Newton, President of EMR Policy Institute speaks on wi-fi dangers
- Framingham Board of Health Director Mike Hugo spoke on a desire to implement right-to-know labeling in retail stores, and wired technology in schools
- Dr. Devra Davis Q&A with OBGYN on dangers of Wifi on children and pregnant women
- Dr. Devra Davis, Ph.D Q&A with school board member on dangers of Wifi & children

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**Brownstone Greater Boston Supper Club**

**March 3, 2026,5:30 pm - 9:00 pm,$55.00**

*Is Your Wireless Tech Safe? Let's Learn to Stay Connected and Protected*

Cece will walk us through the peer-reviewed scientific literature on wireless radiation and digital addiction, as well as common symptoms of EMR Syndrome. She will make the invisible visible with a live demonstration of the electropollution we are immersed in today then share encouraging inroads in the courts and public policy. Cece will leave us with common sense practical steps we can all take today to greatly reduce our exposures, plus actions to help move the needle to safe technology.

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**OFF February**

**Go Social Media-Free for 28 Days!**

Massachusetts for Safe Technology is honored to partner with the OFF Movement for OFF February, along with our friends at Tech Safe International and Americans for Responsible Technology. We invite you to join this worldwide campaign to significantly reduce the use of social media during the month of February. During "**OFF FEBRUARY**," participants are asked to remove social media apps from their phones for 28 days and experience life without being tethered to their devices. See https://www.americansforresponsibletech.org/off-february for flyers/signs for libraries, schools and more. See also https://www.offm.org/en/off-february!

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***Take Back Your Power* Film Screening**

**Monday, January 12, 2026, 6 p.m., Greenfield Public Library**

Reserve your seat for this award-winning documentary about smart meters , followed by Q&A with local experts. The running time of the film is 1 hour and 18 minutes.

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**Melrose Holistic Health and Wellness Expo**

**Sunday, January 11, 2026, 12-4 p.m., Melrose Middle School**

Massachusetts for safe TECHNOLOGY

We are pleased to participate in this free event featuring 30+ local health and wellness businesses, offering residents an opportunity to connect with resources that support well-being, especially as many people begin the New Year focused on health-related goals!

**Safer Technology: Schools, Towns and Vulnerable Populations**

**Friday, November 14, Greenfield Public Library**

Dr. Kent Chamberlin held a forum for local leaders, see slides. See more at Hilltown Health.

**Smart Meters: Health, Safety and Opting Out**

**Thursday, November 13, Greenfield Middle School**

National Safe Tech Expert Dr. Kent Chamberlin addresses health, safety and privacy concerns in light of the rollout of "smart" meters by Eversource and National Grid in MA. Presented by Hilltown Health and Environmental Health Trust. See Dr. Chamberlin's slides.

**Life Next to a Cell Tower: The Victims' Perspective**

**Tuesday, October 7, Live on X**

Hosted by Miriam Eckenfels, Esq., with Pittsfield's Courtney and Amelia Gilardi, California's Frank Allen and Louisiana's Shari Champagne. These are their stories of loss, resilience, and courage. Stories of children made sick, families displaced, and lives forever altered by an industry that puts profit over people.

This is not just their fight — it's ours. Together, we must amplify their voices, share their truth, and build the movement to protect our communities.

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**Prayer Circle**

**Wednesday, August 13, 7 p.m. ET** via Zoom

On the 4th anniversary of the EHT & CHD win against the FCC on their antiquated public radiation exposure standards, please join us for a prayer circle to honor and remember those who have been injured and or lost their lives as a result of their exposure to radiofrequency (RF) radiation.

Attendees are encouraged to share a few words about those lost or injured and how we will carry on our hopeful work in their name.

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**Baby Safe Project: What You Need to Know About Pregnancy and Wireless Radiation**

**Tuesday, August 12, 6:30 p.m. ET,** Live on Slowphone's YouTube Channel

Could exposure to radiation from cell phones, Wi-Fi, and other wireless devices during pregnancy affect your baby's development? Brazil's Slowphone directors and Cece Doucette co-host experts:

- *Patti Wood* – Founder of Grassroots Environmental Education and environmental health educator
- *Doug Wood* – Director of Americans for Responsible Technology and expert in safe communication

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**"Uh-Oh: Cell Phone Radiation?" - What You Need To Know To Protect Your Family from Wireless Radiation**

**Tuesday, June 24, 5:30 p.m.,** 114D Main Street, Medway MA, 02053

In today's digital world, wireless devices are everywhere — in our pockets, at our children's schools, and even in our bedrooms. But what impact is this constant exposure to wireless radiation having on our health?

Join us and our special guest Cece Doucette for this powerful and eye-opening event where we unpack the latest science, policy insights, and practical steps families can take to protect themselves from unnecessary radiation exposure.

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**World EHS Day Symposium 2025**

**Monday, June 16 via Zoom**

Cece Doucette joins Courtney and Amelia Gilardi of Pittsfield, MA to co-host this World Day of Intolerance to Electromagnetic Pollution, in which others share their 2-minute Electromagnetic Radiation/Electrohypersensitivity Syndrome experiences and inspirations for safer tech deployment.

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**Could Your Cell Phone Harm You and Your Kids?**

**Tuesday, May 27, 6:30 p.m., 17 South Avenue, Suite 5, Natick, MA**

An increasing number of children and adults are suffering symptoms of Electromagnetic Radiation Syndrome (EMR-S) -- and never knew to connect the dots to their wireless devices!

Joanne Schmalenberger of Beyond Fitness/Gravoxy invites Cece Doucette, Director of Massachusetts for Safe Technology, to share the science, symptoms to look out for, and what we can all do to stay connected and protected in today's digital world!

Appropriate for most adolescents and adults. Feel free to bring a friend. Walk away with baby steps to start reducing your wireless radiation exposures right away!

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**Arabian Gulf Conference at Harvard 2025**

**May 1-3, 2025**

Designed to spark meaningful conversations, drive innovation, and encourage collaboration among professionals, students, subject matter experts and industry leaders from the region and beyond. Cece Doucette was honored to present on Panel 12: Innovating Social Impact: Nonprofit Strategies, with Hellen Chabunya and Rick Rendon.

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**Dance & Choreography Workshop with Godelième Richard, Piti Theatre Company**

**Select Sundays April-June and/or September-October**, click for more details.

Do you love to dance, have choreographic ideas or want to learn about how to create dances? Discover or deepen your Inner Choreographer in beautiful western MA, in a low-EMF enviroment! Ages 12-99+.

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**Children's Health Defense Colorado Chapter**

**Monday, April 21st, 7 p.m. Mountain Time (9 p.m. ET)**

We'll have a presentation on Wireless Risks and Safer Technology Solutions by Cece Doucette. Cece helped New Hampshire to pass the first law to investigate wireless harms, is chaperoning six bills in Massachusetts and guiding other legislators across the country. Join Zoom Meeting:

https://us02web.zoom.us/j/85887859539?pwd=ToSPn1vnP9q5akRJgKEH5Oz6zF24BT.1

Meeting ID: 858 8785 9539
Passcode: 793446

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**Does Wireless Affect Children, Plants & Pollinators?**

**Saturday, April 12, Random Harvest (upstairs), 1785 State Route 23, Craryville, NY, 12-2 p.m.**

Do you wonder what radio-frequency radiation from cell phones, tablets, routers, baby monitors, wearables IS? Does this technology affect children, plants, pollinators? In what ways? Cecelia Doucette, Director of MA for Safe Techology will educate us!

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**Berkshire County Resiliency Collaborative Potluck & Presentation**

**Friday,April 11, at the LENOX COMMUNITY CENTER 65 Walker St, Lenox, MA. 6:00-8:00 p.m.**

Massachusetts for safe TECHNOLOGY

Friday night after dinner we will feature Cece Doucette, Director of MA Safe Technology (https://www.ma4safetech.org/) who will talk about 5G and radio frequency radiation. This is a new space, but still BYO utensils/plates/cups/etc. For those who want more, Cece will also be presenting again on Saturday, 12:00-2:00 at Random Harvest on Rt. 23 in Craryville, NY.

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**Caregiver Information Night @ Ayers!**

**Wednesday, April 2, 6:30 -7:30 p.m. , AyersRyal SideElementary School, Beverly, MA**

Learn tools to help you and your child navigate the internet more safely. Cecelia Doucette from Safer Screentime will discuss strategies for helping our students navigate the digital age more safely. Sponsored by Ayers and the PTO.

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**The Frankie Boyer Radio Show Live!**

**Saturday, January 11, 2025: 10 am - 3pm, Barrett Sotheby's International Realty, 33 Walden St., Concord, MA 01742**

Join us in person with special guests: Visionary, Norbert Heuser and Cecelia (Cece) Doucette, MTPW, MA for Safe Technology Director to discuss the health danger of electromagnetic radiation - and the solutions! We'll also learn about healthy water, personal energy fields and frequency medicine. Reserve your spot at Frankieboyer.com ∞ 508-878-1782.

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**Children and Social Media**

**Sunday, Dec. 8, St. John Lutheran Church, Peabody, MA, 1 - 3 p.m.**

Join us in person for an informed discussion on the social, emotional and physical health risks of today's technology on our children (and ourselves). Walk away empowered with resources for balancing tech with life's other priorities and joys.

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## Malden Community Health Fest Fall 2024

**Saturday, Oct. 19, Lincoln Commons, Malden, MA, 11 a.m. - 4 p.m.**

Listen to speaker Cece Doucette, and join her at the **Massachusetts for Safe Technology** booth #4 to measure your devices and learn how to use them more safely!

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## Ashland Day 2024

**Saturday, Sept. 21, Stone Park, 73 Summer Street, Ashland, MA, 9 a.m. - 4 p.m.**

Cece Doucette hosted the booth for **Massachusetts for Safe Technology** to share information with the community on wireless radiation science, symptoms, and safer tech solutions!

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## Crush Your Cravings Masterclass

**Free & On-line Event Live:** August 23, 2024
It's such an honor when other health practitioners learn about our work and ask us to participate in their seminars. This one centered on cravings and addictions, including a session on tech addiction with Cece Doucette.

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## World EHS Day Symposium 2024

**Free & On-line Event Live:** June 24, 7 p.m. ET
Cece Doucette joins Courtney and Amelia Gilardi of Pittsfield, MA to co-host this World EHS Day Symposium — World Day of Intolerance to Electromagnetic Pollution, in which others share their 2-minute electrohypersensitivity experiences and inspirations for safer tech deployment. Together we give hope to those suffering and inspire others to take action by spotlighting what's happening right now to:

- Educate the public
- Treat and prevent electromagnetic illness

- Create accommodations
- Protect children in schools
- Adopt science-based local zoning code
- Defend those injured
- Enact laws for responsible technology and utility deployment

Click for **transcripts and resources**.

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**Pittsfield Prayer Circle**

**Sunday, June 16, 8 p.m. ET via Zoom**

Please join us in solidarity to pray for justice for those injured and displaced by the Verizon cell tower. **Register here.**

The oral arguments in the Pittsfield lawsuit will be given in court on Monday, June 17. Click here for details.

Help us send positive energy to the judge, the attorneys, and the victims of the cell tower's radiation. Thank you.

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**Hormonal Havoc Summit**

**Free & On-line Event Live:** June 17 - June 23, 2024
**Encore Weekend:** June 29 - June 30, 2024
Have your health and hormones been off these last few years? Do you feel something is just not right? Join experts to explore a 360-degree view of hormones, and how you can optimize and recover your total body health.

Whether you're dealing with long COVID symptoms, thyroid issues, autoimmune disease, neurological issues, cardiovascular problems, chronic fatigue, fertility challenges, menopausal issues or mental health concerns, this event has got you covered!

Massachusetts for Safe Technology Director Cece Doucette is honored to present How Parents Can Take Action Against EMFs.

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**Canadians for Safe Technology**

**Tuesday, June 11, 2024, 7:30 p.m. Eastern Time**

Topic: Addressing Wireless Radiation at the Local Level, Massachusetts, USA. C4ST Open Meeting - All Welcome. Guest Speaker: Cece Doucette

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**Evolution Expo**

**Saturday, May 18, 2024, 10-4:** Keene State College, NH

Cece Doucette is honored to partner with New Hampshire for Safe Technology in their booth, and to give the talk ***"Could Your Wireless Tech Be Injuring You?"*** Join us to learn about today's wireless radiation health risks, what symptoms to be on the lookout for, and how to develop safer tech use habits. You'll also gain insights into why we don't hear about the science and actions taking place in the courts and legislatures. Did you know NH passed a groundbreaking law to investigate 5G harms on people and the environment? You'll leave knowing how to stay connected and protected. Don't miss this cutting-edge talk!

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**5G & Smart Meters: Friend or Foe?**

**March 4, 2024**, 5-6:30 p.m. ET, Free

Roecliff Jansen Community Library, Hillsdale, NY: Join the Scientific Alliance for Safe Technology's (SAFE) Nina Anderson and Kathryn Levin along with Cece Doucette. Learn the risks from radiating technologies and what we can do in our homes and communities to stay connected and protected. Click for video recording.

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**It's Not "All in Your Head": Multi-Modal Healing with Dr. Judy Tsafrir**

**January 21, 2024**, 4-5 p.m. ET, Free

Judy Suzanne Reis Tsafrir, MD, is a holistic healer, activist, artist, and gardener with a private practice of holistic psychiatry and psychoanalysis located in Newton, Massachusetts. She is a board-certified adult and child psychiatrist and psychoanalyst, is on the faculty of Harvard Medical School and the Boston Psychoanalytic Institute and teaches and supervises at the Cambridge Health Alliance. In this talk, she will discuss the multi-modal holistic approach she takes in her practice for the treatment of three conditions commonly associated with ME/CFS and Long COVID: Mast Cell Activation Syndrome (MCAS), Electromagnetic Sensitivity (EMS), Mold Toxicity, and Ehlers Danlos Syndrome (EDS). A recording will be available after the event.

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**Quit Sugar Summit**

**January 8-14, 2024**, Free

World-famous scientists, MD's Ph.D.'s, coaches, therapists, addiction experts, investigative journalists, chefs and more from around the globe come together for 7 full days to help YOU change your relationship with sugar in 2024. Cece Doucette, Director of Massachusetts for Safe Technology, is honored to speak on January 9 about the added risks of addiction from wireless technology and excessive screen time.

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**7 Ways to Make Your Home Safe from EMFs & Wireless Radiation, with Dr. Erin Acevedo**

**Mondays, Jan. 8, 22, Feb. 12, & 26**, 6:30-7:30 p.m. ET in Beverly, MA; $10 class fee

Click link above for full details, then click registration link here.

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**Taking Control of Your Family's Health**

**January 15, 2024:** Virginia Medical Freedom Alliance Summit and Rally

The Summit is a full day of international and national speakers, medical and legal experts, empowering you with the knowledge to understand the risks each of us faces in the current

paradigm. The full day includes a continental breakfast, lunch, social hour with hors d'oeuvres, and dinner with a keynote speaker. Cece Doucette, Director of Massachusetts for Safe Technology, will present on wireless risks and safer technology solutions.

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**EMF Safety in a Wireless World**

**December 5, 2023:** BioBites 12 Noon ET Virtual Webinar

Marion Institute BioMed Programs invites you to register for an enlightening look at **EMF safety** with guest expert, Cece Doucette, MPTW, BA, and Director of Massachusetts for Safe Technology. See recording, and resources in the video description.

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**Health Effects of EMF and 5G**

**November 30, 2023, 6-8 p.m. ET:** Family Life Center, First Church Congregational, 4 Georgetown Road, Boxford, MA

Join us for a discussion with Cece Doucette about how wireless tech can be doing us considerably more harm than good. Learn safe technology inroads being made by citizens, legislators and the courts. Walk away empowered with simple tips you can use today to reduce your radiation exposures — and have superior connectivity!

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**Children's Health Defense Conference**

**November 2-5, 2023:** Savannah, GA

Dr. Paul Heroux, Attorney Scott McCollough and Cece Doucette are honored to join Attorney Miriam Eckenfels-Garcia for the panel ***What About Wireless? The Ins and Outs of EMR!***

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**Evolution Expo**

**Sunday, October 15:** Concord, NH

Massachusetts for safe TECHNOLOGY

Cece Doucette is honored to partner with New Hampshire for Safe Technology in their booth, and to give the talk ***"Is Your Cell Phone Making You Sick?"***

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**Healthier Tech Summit**

**M-Th, September 18-21**: 12 Noon to 4 p.m. ET, with live panel Q&A from 4-6 p.m. ET

Cece Doucette is honored to present ***Public Policy to Make Technology Safer.*** Additional Day 2 panelists include:

Rob Metzinger - The Future of 5G
Dr. Devra Davis - The EMF Impact on Wildlife & Children
Jenny DeMarco - Advocacy and the National Call for Safe Technology
Lloyd Burrell - How to Overcome EHS
Nick Pineault - A Practical, Compassionate Approach to EMF Mitigation

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**World EHS Day: Massachusetts**

**Friday, June 16**: Zoom Event, 6-7 p.m. ET.

Please join Senator Paul Mark, State Representative Tricia Farley-Bouvier and citizens in Massachusetts as we honor those around the globe making the invisible disease of electromagnetic illness, or electrohypersensitivity (EHS), visible. We will share personal experiences, discuss legal inroads, and highlight public policy initiatives. All are welcome!

**Click to watch!**

–

**EMF Medical Conference**

More than 800 doctors, nurses, first responders, therapists and others attended the international EMF Medical Conference to learn to recognize, diagnose, treat and prevent illnesses from the electromagnetic fields (EMFs) of radiation emitted by today's wireless technology and other electrical installations. MA for Safe Technology's Cece Doucette was honored to present State and Local Policy.

- **24.5** **CMEs and CEs** are available for continuing education credit until July 2023 for self-paced on-line training. Videos are also available at a reduced rate for the general public and those not needing continuing education credit.
- Click here for a **letter to give to your health care practitioners.**
- **Firefighters** also need to have continuing education credits but don't often have travel budgets. They appreciate being able to attend the conference from the fire station. To help facilitate the conversation, please print out and bring the International Association of Fire Fighter's position statement on Cell Tower Radiation Health Effects to your local fire station along with the conference letter above.
- The **radiofrequency radiation detection meter** recommended for health care practitioners to loan to their patients is the Safe & Sound Pro II by Safe Living Technologies. Those agreeing to participate as citizen scientists in Dr. Magda Havas' Global EMF Monitoring project can request a discount code for the meter. Learn more here.

—

**Rutland: Do Cell Towers Belong Next to Our Homes and Schools?**

**Wednesday, May 3**: Zoom Forum, 12 noon ET.

Thank you to the 446 citizens who signed the petition to stop the irresponsible placement of a cell tower too close to two neighborhoods, the middle school and the elementary school. Join us to learn more about the scientifically documented biological risks to us, our children, the pollinators and the environment — information suppressed by the wireless industry. We'll also share details to attend the hearing on May 18, 2. p.m. at the Worcester Superior Court. See this recent interview on WCCA-TV, Tech Safe 5: Inroads in Rutland.

–

**Wireless Technology: Choosing Safer Options to Protect Our Health and the Environment**

Tuesday, May 2: Rochambeau Library, Providence, RI, 6-7:30 p.m.

Please join 5G Free RI, Toxics Information Project and Rhode Islanders for Safe Technology and Cece Doucette in a presentation of peer-reviewed science showing wireless tech causes

harm, inroads in public policy and the courts, and ways for us all to personally make safer choices while still experiencing excellent technology connections.

**Upton Town Meeting Warrant Article Info Sessions**

Friday, April 28, 6 p.m., United Parish Church, 1 Church Street, Upton

Do you want a cell tower next to your home? Learn the scientific risks from Massachusetts for Safe Technology Director Cece Doucette. We'll discuss how Upton and other communities are protecting sensitive areas like homes and schools through town meeting warrant articles and updated zoning codes. See March 27 forum video and additional resources.

–

**1,000 Days and Nights Driven from One's Home: EMF/RF/5G Forum**

Thursday, April 17, 7-8:30 p.m. via Zoom

Co-hosted by Courtney Gilardi of Pittsfield, MA and Patricia Burke of Millis, MA, topics include:

- Why Be Concerned About Wireless?
- FCC and Health: Court Mandate
- Smart Meter Risks
- MA Citizens' Petitions for Town Meeting Warrant Articles

Click here for the recording, speakers are bookmarked in the video description.

**Great Barrington 5G Info Session**

Thursday, April 20, 6:00 p.m. ET., Friend's Meeting House. 280 State Street, Great Barrington MA

Join us to learn about 5G concerns, and the Citizen's Petitions for Great Barrington and Sheffield Town Meeting Warrant items. Learn what 5G is and what implications it has for the environment, pollinators, birds and humans. A short video by Frank Clegg, former head of

Microsoft Canada on his take on the dangers of 5G will be shown. If you are a voter you need to come and get educated about this important subject to be voted on at the May 1 town meetings.

–

**Chester, MA Public Forum:**
**Wireless Radiation Risks & Safer Solutions**

Wednesday, April 19, 6:00 p.m. ET, Chester Town Hall, 15 Middlefield Road

Technology Safety Educator Cece Doucette joins resident Eileen Duane to walk attendees through this issue, answer questions and demonstrate radiation emissions from wireless technology.

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**Pittsfield Virtual Prayer Circle for Court Case**

Monday, April 3, 7-7:30 p.m. ET.

Join us for a virtual prayer circle in honor of the Shacktown residents, attorneys and Pittsfield public servants on Monday night from 7-7:30 p.m. ET. in advance of their court case hearing on Thursday, April 6 at 2 p.m. ET to seek justice against a toxic Verizon cell tower. Click to register.

—

**Evolution Expo, Concord, NH**

Sunday, April 2, 9 a.m. -4 p.m. ET, Free with Pre-Registration, $10 at Door

Cece Doucette will speak on technology safety in the Capital Room at 1:15 p.m. Courtyard by Marriott Concord and Grappone Conference Center, 70 Constitution Ave., Concord, NH. Visit Booth 11 with NH for Safe Technology!

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**Let's Connect About Cell Towers — and Why You Should Care**

Thursday, March 30, 7-8:30 p.m. ET. Full webinar recording. Legal advice for munipalities clip.

Hear directly from scientists and engineers (including Dr. Kent Chamberlin and Dr. Paul Heroux from the NH Commission), attorneys and injured citizens, as well as those fighting a school cell tower in Michigan.

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**Choosing Safer Technology to Protect our Health, Pollinators and Environment**

March 21, 2023, Forbes Library, Northampton, MA

Click to see video recording from Northampton Open Media.

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**5G Awareness and Info Session for Sheffield and Great Barrington**

March 16, 2023 at 6:30 p.m.,Bushnell-Sage Memorial Library

All are invited to attend this public education forum in Western MA to learn why these towns have warrants on 5G restrictions for their annual town meeting vote.

The event will be held at the Bushnell-Sage Memorial Library, 48 Main St., Sheffield, MA. See invitation here.

–

**Care for the Earth's Caregivers - with Green Teacher Magazine**

Free 4-webinar series Nov 2 and 23, 2022; March 1 and 22, 2023

Please join Dr. Kerry Crofton to learn to protect your own wellbeing, as you care for our planet earth — and all her inhabitants. Her Less Screen, More Green – Mindful Tech Plan™ offers science-based information and practical skills for physical and mental wellbeing, including EMF reduction and a healthy connection with nature.

—

**Natural Living Expo, Marlboro, MA**

Saturday/Sunday, November 12-13

New England's largest holistic health event. Cece Doucette will be presenting *Wireless Technology Risks and Safer Ways to Connect* on Saturday at 10:30 a.m. in the Seminar room.

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**Holistic Pros Lunch & Learn with Cece Doucette**

Wed, September 28, 2022, 12:00 p.m. – 1:00 p.m. ET

Click the link above to see this free webinar, *Wireless Technology - Effects on the Human Biological Systems: Discover Tools and Best Practices for Yourself and Your Clients.*

—

**Generation Zapped, Hillsdale, NY**

Thursday, July 14. 6-9 p.m. Mettabee Farm

Following a wonderful potluck dinner, the community joined Cece Doucette for a screening of the award-winning film *Generation Zapped* and a Q&A session. See event invitation here for inspiration, and a four-minute clip of highlights. Please contact Cece if you'd like to discuss hosting a similar event in your area!

—

**Standout for Solutions, Pittsfield, MA**

Friday, July 15. 5:15-8 p.m., Park Square

Thank you to those who joined us in solidarity in calling for answers for those harmed and displaced by the Verizon 877 South Street cell tower. The Standout at Park Square was followed by discussion with Courtney Gilardi and Cece Doucette on the urgency of having protective zoning bylaws in place. See invitation here for ideas on how you might raise awareness in your own community!

—

**Canary in a Gold Mine**

Massachusetts for safe TECHNOLOGY

Now Available on Demand

Don't miss Piti Theatre's "Canary in a Gold Mine" as part of the 30th Annual Ko Festival of Performance!

International playwright/actor Jonathan Mirin tells the story with wit and humor of the mysterious symptoms that befell his life and production partner Godelième a decade ago — and how they figured out wireless radiation was the culprit.

–

**World EHS Day!**

Massachusetts for Safe Technology and Pittsfield's Courtney Gilardi co-hosted World EHS Day: Voices of the Invisible Made Visible. More than a dozen children, adults, scientists and building biologists provided two-minute statements describing electromagnetic sensitivity and the severe impact it has on lives.

Join us to celebrate the strength and resilience of the EHS community, to learn about this illness and engage in creating an equitable and inclusive world for all!

**Watch video here!**

—

New England Assembly

June 15, 7 p.m. Eastern via Zoom

Likeminded citizens are forming groups across the country to create a better world. We're pleased to present ***Wireless Risks and Better Technology Solutions***
and the New England Assembly welcomes all to attend.

**Click for video!**

–

Hilltown Health Community Education on Responsible Cell Tower Siting

May 18, 2022

Join **Jonathan Mirin for a webinar with Dr. Kent Chamberlin** who served on the New Hampshire Commission! Learn about the cell tower application in Conway, MA, and others.

–

Pittsfield MA Expert Forum 3: Verizon Cease and Desist

April 25, 2022

Pittsfield resident Courtney Gilardi welcomes EMF experts **Frank Clegg**,Retired President of Microsoft Canada, Chair of Canadians for Safe Technology; **Theodora Scarato**, LMSW, Executive Director, Environmental Health Trust; **Dr. Toril Jelter**, Pediatrician; **Dr. Lisa Nagy**, Environmental Medicine Specialist; **Jonathan Mirin**, MA, Founder, Piti Theatre Company; **Cece Doucette**, MTPW, Director, Massachusetts for Safe Technology.

–

"EMF EMR The Mother of all Toxicity"

See **Dr. Patricia Jordan's** frank presentation on Day 4 of the Dog Detox Summit, and learn how to protect your pets from today's wireless radiation.

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Rutland, MA Wireless Risks and Safer Cell Tower Siting

March 29, 2022, 6:30 p.m. Rutland Public Library, 280 Main Street, Lower Level.

Click here to watch the video! There is great discussion of the harm that happens when industry convinces our towns to allow them to install wireless infrastructure at close range, and ways towns can protect their residents, schools and pollinators.

–

Pittsfield MA Expert Forum 2: Verizon Cease and Desist

March 28, 2022

Five world-leading experts join Courtney Gilardi in Pittsfield, MA in support of their Board of Health's decision to issue a cease and desist order to Verizon for the cell tower making children and adults sick, and pollinators disappear. Learn from **Theodora Scarato, MSW**,

Environmental Health Trust Executive Director; **Martin Pall, PhD**, Professor Emeritus of biochemisty and medical sciences specializing in the effects of low intensity microwave electromagnetic fields (EMFs) on the human body; **Elizabeth Kelley, MHA**, EMF Medical Conference Executive Producer, International EMF Scientist Appeal Director; **Patrick Abrami**, New Hampshire State Representative who introduced HB 1644 for cell tower setbacks and a registry of wireless harm**; Cindy Russell, MD**, Surgeon and Physicians for Safe Technology Director. See links to speaker resources in the video description.

–

Northborough, MA Tech Safety Talk

March 9, 2022

Northborough, MA is preparing to pilot **smart water meters** and residents have asked for an information session on wireless radiation risks. All are welcome to this in-person event for a basic understanding of the wireless issue and better technology solutions.

–

Pittsfield MA Expert Forum 1 on Cell Tower Cease-and-Desist Order

February 28, 2022

Featuring: Courtney Gilardi, **Senator Denise Ricciardi, Dr. Paul Héroux, Dr. Magda Havas, Dr. Kent Chamberlin, Dr. Sharon Goldberg, Attorney Robert Berg, Attorney Scott McCollough, Environmental Health Trust Director Theodora Scarato.**

Learn the scientific, medical and legal facts that prompted the Pittsfield, MA Board of Health to vote unanimously to issue a cease and desist order to Verizon for the removal of a Verizon cell tower that has made a neighborhood sick and pollinators disappear. We await the issuance of the order.

This is an excellent educational video to share widely with one's own town, legislators and loved ones.

–

Dr. Kent Chamberlin Presentation to Tri-Town Health Department

August 19, 2021

Dr. Kent Chamberlin, who served on the NH Commission that investigated wireless radiation, presents the facts to the Massachusetts Tri-Town Health Department, with introduction by Executive Director, Jim Wilusz. See Dr. Chamberlin's slides with active links to resources.

–

Press Conferences: Court Rules Against FCC in Federal Lawsuit!

August 16, 2021

Click here for **Environmental Health Trust** press conference led by Dr. Devra Davis.

Click here for **Children's Health Defense** press event led by attorney Dafna Tachover.

Please share with loved ones, neighbors, towns, legislators, first responders, health care providers and local journalists. The FCC has NOT set safety limits based on science and children are especially vulnerable to today's wireless radiation.

–

EMF Health Summit

July 24-25, 2021: Encore Weekend

Whether you're a practitioner supporting patients and clients, a patient struggling with health issues or known EMF toxicity, a parent hoping to protect your children, or just someone interested in this topic, our leading health experts, scientists and authors are here to share the truth about EMFs and wireless radiation and how to live a healthier life in our electromagnetic world. Includes MA for Safe Technology Director Cece Doucette, "EMF Deathtraps: How School WiFi is Poisoning Our Children."

–

Pittsfield, MA: Expert Community Forum on Cell Tower Harms

JULY 5, 2021

Verizon turned on a cell tower next to a neighborhood during COVID-19 and more than a dozen children and adults are suffering microwave sicknesses. Courtney Gilardi, Dr. Kent

Chamberlin, Theodora Scarato and Cece Doucette discuss the hazards of cell towers in residential areas, and explain why the FCC public radiation exposure limits do not protect human health or the environment. They provide action steps to empower citizens, municipal leaders, legislators and health care professionals to protect our communities today until public policy catches up to the science. Please share widely to begin/advance the technology risk management conversation.

—

II Brazilian Meeting of Electromagnetic Protection

JUNE 24, 2021

Cece Doucette was honored to moderate the The Movements of Safe Technology in North America with panelists Frank Clegg (former Microsoft Canada president), Dr. Kent Chamberlin (Chair and Professor Emeritus, University of New Hampshire, Electrical and Computer Engineering Department), Theodora Scarato (Environmental Health Trust Executive Director) and Patti Wood (Director, Americans for Safe Technology, BabySafe Project, TechSafe Schools). This is part of a week-long Brazilian symposium with leading global experts in EMFs.

—

Pittsfield, MA Board of Health: Expert Forum on Cell Tower Harms

JUNE 3, 2021

Children and adults became ill after a Verizon cell tower was turned on during the pandemic in this Pittsfield, MA neighborhood. After the MA Department of Public Health reneged on promises to assist, the Pittsfield Board of Health invited a panel of EMF scientific and medical experts to educate and strategize on solutions to protect public health. Please share widely with public servants and legislators in your own town to begin/advance the technology risk management conversation.

—

Live from the Hive: The Pollinator Report

EARTH DAY, APRIL 22, 2021

Vermont youth pollinator protectors interview a beekeeper, a soil-scientist, a state legislator, and Cece Doucette who discusses wireless radiation impact on our pollinators, planet and people. Click here for the full program, or here for the 5G portion, including a steel band video of the song *We Do Not Consent*. Folks are welcome to explore the links in Cece's slide presentation, Wireless, Wildlife and You.

—

New Hampshire 5G Legislative Report with Dr. Kent Chamberlin and Cece Doucette

TUESDAY, APRIL 7, 2021

Dr. Kent Chamberlin, Professor Emeritus and former Chair, Department of Electrical and Computer Engineering, University of New Hampshire, takes us through the rigorous legislative investigation NH conducted into 5G and wireless technology. The final report concludes wireless is harmful and makes 15 recommendations for our towns to transition to hard-wired technology solutions. This is a highly credible resource, pleases share today with your towns and legislators.

***Part 1:*** *How the Commission Came to Be, and What it Was Tasked to Do*
***Part 2:*** *Majority & Minority Reports, and Scientific Discovery (10:00)*
***Part 3:*** *Conflicts of Interest with Industry and Federal Agencies (21:00)*
***Part 4:*** *Recommendations to Protect Our People and Communities (32:00)*
***Part 5:*** *Recommendations to Protect the Environment, and Next Steps (49:30)*

Links to supporting evidence are provided with the video, in the description.

—

Slowphone Brazil:
Courtney Gilardi Reports How the Pittsfield, MA Verizon Cell Tower Made Her Family and Neighbors Sick

TUESDAY, APRIL 13, 2021

Courtney Gilardi shares with Brazilian activists how a cell tower showed up next to her home with no notice and made her, her two young children, and her neighbors immediately ill

when the antennas were turned on. She chronicles attempts to ask for help from Pittsfield City Council, Board of Health, her legislators and the legal system. Click here.

—

Slowphone Brazil:
Cece Doucette Discusses Wi-Fi in Schools & New Hampshire 5G Report

TUESDAY, APRIL 6, 2021

Cece Doucette shares with Brazilian activists wireless risks in today's schools, and the inroads made by the New Hampshire legislature with their groundbreaking 5G investigative report. Click here, subtitles available in Portuguese!

—

Critical Community Conversation:
5G Hazards & Better Tech Solutions

TUESDAY, APRIL 6, 2021

Cece Doucette walks us through the 5G and wireless issues, demonstrates radiation emissions from wireless technology, and answers questions. Learn steps others are taking to ensure safe, fast, sustainable technology in their communities. Walk away with simple strategies you and your loved ones can use today with your own devices to still access today's technology but much more safely — and much faster too! Please share widely with your towns and legislators. Click here.

—

Burlington, MA Selectmen's Candidate Forum

The Press Panel asks each candidate to weigh in on the 5G small cell applications, see 6-minute forum segment. Citizens are welcome to share with other towns to encourage an investigation into 5G and wireless radiation risks.

—

TechSafe Schools Webinars

The TechSafe Schools project provides the following for you to share with your schools:

- A personal letter addressed to school administrators
- A legal letterfrom seven prominent attorneys with experience in wireless radiation and tort litigation
- A short Q&A brochure about RF radiation in schools
- An invitation for school officials to attend one or more of three national webinars

Click here to watch the TechSafe Schools 3-minute video.

—

EMF Medical Conference 2021

More than 800 doctors, nurses, first responders, therapists and others attended the international EMF Medical Conference to learn to recognize, diagnose, treat and prevent illnesses from the electromagnetic fields (EMFs) of radiation emitted by today's wireless technology and other electrical installations. MA for Safe Technology's Cece Doucette was honored to present State and Local Policy. Subsequent CMEs and CEs available for continuing education credit for self-paced on-line training.

—

Ben Speaks: FREE Speaker Series with Cecelia (Cece) Doucette, MTPW, BA

THURSDAY, DECEMBER 17, 2020 AT 6:30 PM EST – 7:30 PM EST

Who would know? Today's wireless technology - our cell phones, routers, wearable, gaming devices, etc. - emits microwave radiation that the science links to anxiety, depression, anger, insomnia, suicidal ideation and more. Come learn the science and risks, plus small changes anyone can make to still have technology, but without the toxic radiation.

—

Tri Town Health: *Safe Cell Tower Siting Zoom Educational Forum*, October 19th 6:30 PM-8:00 PM

Join Tri Town Health (Berkshires) for a discussion about scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell towers /antennas, and what citizens, policy makers and health care professionals need to know to make informed decisions for their communities. Invited speakers are Cece Doucette and Jon Mirin.

—

Wireless Technology Health & Environmental Risks for Massachusetts, October 15, 7-8 p.m.

Keep Hyde Park Beautiful and H.E.R.E. Justice Coalition hosted this Safe Technology Introduction event with Cece Doucette to help Boston residents understand the risks from today's wireless infrastructure and devices, and to discuss strategies for safer technology solutions.

—

Zoom Generation Zapped Discussion

Newton Free Library Zoom Generation Zapped Discussion – Patrons of libraries that subscribe to Kanopy can stream Generation Zapped for free. The Newton library invited patrons to watch the film on their own, then Dr. Judy Tsafrir and Cece Doucette led a 1.5 hour in-depth discussion to bring participants current with wireless radiation science and efforts toward safe technology. See the presentation and Cece's slides here. Please share with your own library and ask for a similar program.

—

5G Crisis National Call: What's Working

Cece Doucette was honored to represent Massachusetts in this nation-wide call with others who are making inroads to safe technology in their communities. Hear also from California, Michigan, Connecticut, Florida and Illinois residents who share strategies and words inspiration!

—

Hopkins Medical Group

Massachusetts for safe TECHNOLOGY

Hopkins Medical Group in Weymouth invited Cece Doucette to give a presentation (introduced @ 22:00) on EMFs. The video was edited for space, see Cece's full presentation slides here. She was also a guest speaker for two podcasts, available through their Genius of Wellness program (Episode 12: The Dangers and Remedies of Wireless Tech, and Episode 13: Health Concerns Surrounding 5G). Please share with your own health care teams and others so they may learn too.

—

EMF Conference

Videos of the Sept. 2019 Santa Cruz, CA EMF Conference for health professionals is now available at a reduced price of $99, down from $295. Panel discussions and Q&A sessions are free to all. Another medical conference is planned for the end of January 2021. Please share with your health care teams and town boards of health and encourage them to be trained on this ever-increasing environmental toxin.

—

5G Summit

Josh del Sol, director of award-winning film "Take Back Your Power" relaunched the 5G Summit with new content plus original 40 experts, including Massachusetts' Cece Doucette. Encore weekend June 13-14. Consider sharing on social media to help others learn.

—

Immunity Blueprints Summit

Cece Doucette was recommended by Dr. Judy Tsafrir to be a speaker in the "Immunity Blueprints Summit" featuring doctors, health coaches and others to empower understanding and optimization of one's own immune system. Encore weekend June 20-21. Consider sharing on social media to help others learn.

**Question 6: What scientific evidence exists about potential adverse health effects caused by current exposure limits?**

**Question 12: What scientific evidence exists regarding potential adverse health effects associated with RF radiation exposure at levels below current federal exposure limits?**

# Research Repository: Understanding EMFs

The following sections contain a strong sampling of the science and other resources that have influenced our efforts to educate the public.

- The Science
- Military Experts
- Doubts
- Cancers
- Infertility
- Impact on Children
- Wi-Fi in Schools
- EMR Syndrome (Electromagnetic Radiation Syndrome)
- Utility "Smart" Meters
- Cell Towers
- 5G & IoT
- Planetary Impact
- Legal Issues
- MA EMF Bills
- Bills in Other States
- Manufacturers
- Media Limitations
- World Response
- Solutions
- For Health Care Providers
- For Engineers & Physicists
- For Municipal Leaders
- For Legislators

- **Expert Video Clips**
- **Books**
- **Documentaries**

***Note**: once a substance has been determined to be carcinogenic, there is no safe level of that substance. As you will see below, the science is clear that this radiation causes cancer. So, all wireless technologies are hazardous and we should we determine we cannot put the genie back in the bottle, then we should at least aim for the ALARA Principle supported by the Centers for Disease Control and Prevention.*

*Where radiation is concerned, we should seek levels As Low As Reasonably Achievable. They recommend spending as little time in radiation as possible, create as much distance from objects that are radiating, and when we cannot get away from radiation, we should shield. The latter is best done with a professional such as a Certified EMR-S Building Biologist as there are shielding nuances that if not done properly can create additional harm.*

# Science Overview

Thousands of peer-reviewed, published studies indicate great biological harm from radiofrequency (RF) radiation and electromagnetic fields (EMFs). The following describes identified mechanisms of harm as well as the biological effects.

**Urgency for Action**

- Dr. Joel Moskowitz of **Electromagnetic Radiation Safety** noted, "*This well-referenced literature review (373 refs.) explains how electromagnetic fields (EMF) produced in wireless communications--which are polarized, coherent microwaves with highly variable intensity and modulated and pulsed at extremely low frequencies--cause "cancer, infertility, electro-hypersensitivity, and various other pathologies."*

  June 2025: *A comprehensive **mechanism of biological and health effects** of anthropogenic extremely low frequency and wireless communication electromagnetic fields* Dimitris J. Panagopoulos[1,2*] Igor Yakymenko[3] Geoffry N. De Iuliis[4] George P. Chrousos[1,5] REVIEW article Front. Public Health, 03 June 2025 Sec. Radiation and Health Volume 13 - 2025 | https://doi.org/10.3389/fpubh.2025.1585441

- Dr. Martin Pall's paper, "**5G: Great risk for EU, U.S. and International Health! Compelling Evidence for Eight Distinct Types of Great Harm Caused by Electromagnetic Field (EMF) Exposures and the Mechanism that Causes Them**" is perhaps the quickest way to examine the scientific review on EMFs.

Dr. Pall indicates much of the damage we are unwittingly doing to ourselves with wireless radiation is cumulative so it is urgent that we educate the public on safer ways to use current technology now and stop the industry from exposing us further.

The scientific review in Dr. Pall's paper indicates some of the damage may already be irreversible so it is imperative that we act now to stop 5G, 6G and the Internet of Things, and immediately put safety guidelines in place for existing wireless technology (cell towers, utility "smart" meters, cell phones, routers, baby monitors, gaming devices and other personal devices).

The European Academy of Environmental Medicine provides Dr. Pall's paper here:

https://europaem.eu/attachments/article/131/2018-04_EU-EMF2018-5US.pdf

- See also the 2026 article, *The EMF Causal Chain: Why the New Frontiers Editorial Matters* which explains why it is time to **shift away from the thermal standards in a non-thermal world**:

  www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1856852/full

**German Hospital Database**

The **EMF-Portal** is a project of the femu working group of the Institute and Out-patient Clinic of Occupational Medicine of the University Hospital RWTH Aachen. It systematically summarizes **scientific research data on the effects of electromagnetic fields (EMF) of radiation**, both low-frequency (house electricity) and radio-frequencies (wireless).

The database now includes more than **50,000 studies**; when we finally took action to protect the populace from lead, we had @ 10,000 studies:

http://www.emf-portal.de/?l=e

**NIH Studies**

- A search on the National Institutes of Health PubMed database returns **more than 3,000 world-wide studies on "Electromagnetic Fields/adverse effects"** over the last 50 years. The most recent studies appear first:

*http://www.ncbi.nlm.nih.gov/pubmed?term=%22Electromagnetic+Fields/adverse+effects%22[MAJR]*

- In 2018 the **U.S. National Toxicology Program's $30M study** determined radiofrequency radiation causes cancer and DNA damage. Another large study from Italy found the same results. See the Cancers page for details.

**Oxidative Stress: Rouleaux Formation**

- Exposure to wireless radiation causes red blood cells to clump together, causing oxidative stress. See the paper by radiologist Dr. Rob Brown and Barbara Biebrich, **Hypothesis: ultrasonography can document dynamic *in vivo* rouleaux formation due to mobile phone exposure:** www.frontiersin.org/journals/cardiovascular-medicine/articles/10.3389/fcvm.2025.1499499/full

- See also Dr. Magda Havas' paper, **Radiation from wireless technology affects the blood, the heart, and the autonomic nervous system** in which she detects rouleaux formation using dark field microscopy:

www.degruyterbrill.com/document/doi/10.1515/reveh-2013-0004/html

**Peroxynitrite**

- Peroxynitrite creates particularly harmful free radicals that attack many of our bodies' systems. Electromagnetic fields and radiofrequency radiation have been shown to cause the development of peroxynitrite (ONOO), a reaction of nitrogen monoxide (No) with superoxide (o2). As the **Austrian Medical Association** reports, due to its relatively long half-life, peroxynitrite damages a large number of essential metabolic processes and cell components:

*https://www.degruyter.com/view/journals/reveh/31/3/article-p363.xml*

- In this 16-minute lecture, **Dr. Martin Pall** explains how this damages our cells:

*https://www.youtube.com/watch?v=3kQQyU8NHv8*

- There are more in-depth lectures by Dr. Pall on YouTube, and the studies he cites can all be found on the **National Institutes for Health (NIH) PubMed Database.**
- *The **EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses*** indicates, "Based on our current understanding, a treatment approach that minimizes the adverse effects of peroxynitrite - as has been increasingly used in the treatment of multisystem illnesses - works best."
- The paper, ***Root Cause in the Dramatic Rise of Chronic Disease***, links chronic illness to peroxynitrite from environmental toxins, at a conservatively estimated cost of $2.5 trillion per year in the U.S.
- Please **see the Cancers page** as the U.S. National Toxicology Program has announced results from a $30 million tightly controlled rodent study that radiation from cell phones caused brain and heart tumors, and what happens to these rodents happens to humans. Since all of our wireless devices use the same radiation, all of our devices are carcinogenic, and cancer is just the tip of the iceberg with biological harm to our bodies and planet.

**Wi-Fi**

- Much of the earlier science focused on cell phones as that was the first wide-scale consumer product emitting wireless radiation. Dr. Martin Pall's 2018 paper, "*Wi-Fi is an important threat to human health*," summarizes studies of the biological harm from wi-fi:

*https://www.sciencedirect.com/science/article/pii/S0013935118300355*

- With gratitude to the Environmental Health Trust, the following provides **wi-fi research abstracts** indicating evidence of harm:

*https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYWUwODIyMzQxMDRhZjVh*

**Prevalence of Harm**

Massachusetts for safe TECHNOLOGY

Common questions by legislators and others joining the EMF/RF conversation are, "How prevalent is the harm?" and "What is the cost to society?"

**Societal Cost Skyrocketing**

- Root Cause in the Dramatic Rise of Chronic Disease, by Rich Lear shows the national cost of the 40 fastest-growing chronic illnesses in the U.S. The report links chronic illness to the **free-radical peroxynitrite** from environmental toxins, at a conservatively estimated cost of $2.5 trillion per year in the U.S.
- Lear's subsequent 2018 paper, ***A New Era of Chronic Disease in America and what's behind it*** reports government data on forty fast-growing diseases. Four relatively new and escalating disease groups have emerged: **1) neurological 2) autoimmune 3) inflammatory and 4) metabolic disease.** These include cancer, heart disease, autism, Alzheimer's, ADD/ADHD, chronic fatigue, diabetes, anxiety, depression and more.
    - https://www.researchgate.net/publication/319288113_A_New_Era_of_Chronic_Disease_in_America_and_what's_behind_it
- Dr. Martin Pall's work shows wireless radiation causes peroxynitrite. In this 16-minute lecture, **Dr. Martin Pall** explains what electromagnetic radiation is doing to our bodies and why it is causing illness: https://www.youtube.com/watch?v=3kQQyU8NHv8
- There are more in-depth lectures by Dr. Pall on YouTube, and the studies he cites can all be found on the **National Institutes for Health (NIH) PubMed Database.**

**Cancers**

- Cancer registries are typically five years behind, and while overall cancer cases aren't rising as they once did, the following show **dramatic growth in cancers where cell phones and wireless devices are used/stored on the body or where there are heavy cell tower emissions**:
- **India** is reporting an increase in **brain tumors, including among children**:

*http://www.asianage.com/metros/delhi/100717/brain-tumour-among-children-on-the-rise-in-india.html*

- The incidence of **glioblastoma multiforme (GBM), the deadliest type of brain tumor, more than doubled in England between 1995 and 2015:**

*http://microwavenews.com/news-center/gbms-rising-uk*

- In the U.S. the **American Cancer Society reports a sharp rise in colon cancer and rectal cancer among young adults**:

*https://www.cancer.org/latest-news/study-finds-sharp-rise-in-colon-cancer-and-rectal-cancer-rates-among-young-adults.html*

- The **Environmental Health Trust** also indicates **Cell Phone Radiation Associated Brain Tumor Rates Are Rising**:

*https://ehtrust.org/scientific-documentation-cell-phone-radiation-associated-brain-tumor-rates-rising/*

**Infertility**

- Sperm counts are dropping rapidly in countries that have heavily adopted wireless technology. **Sperm counts are down 50%** in the U.S. and infertility rates are skyrocketing. The studies show wireless radiation causes sperm DNA damage, slower motility and fewer viable sperm -- in just four hours of laptop radiation exposure.

This is a clear threat to survival of the human species:

*https://sites.google.com/site/understandingemfs/infertility*

**Immune Suppression**

- COVID-19 hit the immune system hard, and the science indicates radiofrequency radiation also suppresses the immune system. See this EMF review paper from Olle Johansson, Ph.D.:
- https://www.sciencedirect.com/science/article/abs/pii/S0928468009000352
- Yet, during the pandemic, children were given wireless devices to access their education, and the industry proceeded to install 4G/5G cell towers in the public access way just feet from homes, offices and schools. Magda Havas, Ph.D., compared the number of COVID cases and death rates in states that have 5G and those that did not have 5G yet. She

discovered **COVID-19 cases per million are 95% higher and COVID-19 deaths per million are 126% higher in states with 5G**:

- https://magdahavas.com/5g-and-mm-waves/is-there-an-association-between-covid-19-cases-deaths-and-5g-in-the-united-states/

**Urgency for Action**

Dr. Pall's current paper, "***5G: Great risk for EU, U.S. and International Health! Compelling Evidence for***

***Eight Distinct Types of Great Harm Caused by Electromagnetic Field (EMF) Exposures and the Mechanism that Causes Them***" indicates much of the damage we are unwittingly doing to ourselves with wireless radiation is cumulative so it is urgent that we educate the public on safer ways to use current technology *now* and stop the industry from exposing us further.

The scientific review in Dr. Pall's paper indicates some of the damage may already be irreversible so it is imperative that we act now to stop 5G and the Internet of Things, and immediately put safety guidelines in place for existing wireless technology (cell towers, utility "smart" meters, cell phones, routers, baby monitors, gaming devices and other personal devices).

The European Academy of Environmental Medicine provides Dr. Pall's paper here:

https://europaem.eu/attachments/article/131/2018-04_EU-EMF2018-5US.pdf

**The BioInitiative Report: 2007**

In 2007, world experts convened to assess data available to date and published a report of findings and recommendations for public health. Here's the **Purpose of the 2007 BioInitiative Report**:

*This report has been written by 14 (fourteen) scientists, public health and public policy experts to document the scientific evidence on electromagnetic fields. Another dozen outside reviewers have looked at and refined the Report. The purpose of this report is to assess scientific evidence on health impacts from electromagnetic radiation below current public exposure limits and evaluate what changes in these limits are warranted now to reduce possible public health risks in the future.*

*Not everything is known yet about this subject; but what is clear is that the existing public safety standards limiting these radiation levels in nearly every country of the world look to be thousands of times too lenient. Changes are needed. New approaches are needed to educate decision-makers and the public about sources of exposure and to find alternatives that do not pose the same level of possible health risks, while there is still time to make changes.*

Their **findings** back then included:

*The effects of long-term exposure to wireless technologies including emissions from cell phones and other personal devices, and from whole-body exposure to RF transmissions from cell towers and antennas is simply not known yet with certainty. However, the body of evidence at hand suggests that bioeffects and health impacts can and do occur at exquisitely low exposure levels: levels that can be thousands of times below public safety limits.*

The report goes on to **implicate wi-fi radiation in brain tumors, childhood leukemia, and possibly other cancers and neurological diseases**. Children were noted to be particularly vulnerable:

*These effects can reasonably be presumed to result in adverse health effects and disease with chronic and uncontrolled exposures, and children may be particularly vulnerable. The young are also largely unable to remove themselves from such environments. Second-hand radiation, like second-hand smoke is an issue of public health concern based on the evidence at hand.*

This was enough for some governments to revise their public safety standards, but not the U.S. We took a wait-and-see approach and kept our 1996 standards. See the World Response section to understand how other countries have responded. The BioInitiative Report was published in 2009 in a special issue of *Pathophysiology*.

http://www.sciencedirect.com/science/journal/09284680/16/2-3

**The BioInitiative Report: 2012**

Much more research was then done to clear up the suspicions reported in 2007, and **a new world-wide 2012 BioInitiative Report was issued** concluding:

*Overall, these **1800 or so new studies** report abnormal **gene transcription** (Section 5); **genotoxicity** and **single-and double-strand DNA damage** (Section 6); stress proteins because of the fractal RF-antenna like nature of DNA (Section 7); chromatin condensation and **loss of DNA repair capacity in human stem cells** (Sections 6 and 15); reduction in free-radical scavengers - particularly **melatonin** (Sections 5, 9, 13, 14, 15, 16 and 17); **neurotoxicity** in humans and animals (Section 9), **carcinogenicity** in humans (Sections 11, 12, 13, 14, 15, 16 and 17); serious impacts on human and animal **sperm morphology and function** (Section 18); effects on **offspring behavior** (Section 18, 19 and 20); and **effects on brain and cranial bone development** in the offspring of animals that are exposed to **cell phone radiation during pregnancy** (Sections 5 and 18).*

Additionally,

*Bioeffects are clearly established and occur at very low levels of exposure to electromagnetic fields and radiofrequency radiation. Bioeffects can occur in the first few minutes at levels associated with cell and cordless phone use. **Bioeffects can also occur from just minutes of exposure to mobile phone masts (cell towers), WI-FI, and wireless utility 'smart' meters that produce whole-body exposure.** Chronic base station level exposures can result in illness.*

- The full 2012 BioInitiative Report was published in January 2013 and research continues to identify additional harmful effects of EMFs and RFs. The 2007 report is contained within the 2012 full report.
- In 2014, the BioInitiative Report authors published a much smaller Summary for the Public to cull out the major points: http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec01_2012_summary_for_public.pdf
- To access searchable summaries of the research done through 2014, see Dr. Henry Lai's work at: http://www.bioinitiative.org/research-summaries/
- For non-scientists, this 10-minute video by Dr. Magda Havas, professor of EMFs at Trent University, explains what "**cherry picking**" of studies is: www.youtube.com/watch?v=QyzZX-bCiqs.




**Additional Information**

- This document shows where cellular and wireless technologies fall on the **electromagnetic spectrum** as non-ionizing microwaves.
- Physicians for Safe Technology has put together a page showing how much **radiation exposure different countries allow**, along with a **conversion chart** for the various units of measurement:
- https://mdsafetech.org/conversion-and-exposure-limits-emr-emf/
- Environment and Human Health, Inc. (EHHI) released a 2012 report calling for tougher standards to regulate cellular technologies—especially for children and pregnant women. John Wargo, Ph.D., professor of Environmental Risk and Policy at Yale University is the lead author of the report based on peer reviewed studies:

http://www.ehhi.org/cellphones/

- The Environmental Protection Agency (EPA) also provides information to help understand the health effects of radiation:

http://www.epa.gov/radiation/understand/health_effects.html

- This link summarizes 34 scientific studies indicating adverse health effects from wi-fi:

http://wifiinschools.org.uk/30.html

- Dr. Mikko Ahonen, research scientist from Finland, shares a presentation on the need to change current FCC and ICNIRP standards to protect the public:
- http://www.slideshare.net/MAhonen/microwave-radiation-health-guidelines-and-debate-during-the-last-50-years
- In this article, Dr. Andrew Goldsworthy explains the links between electromagnetic radiation, obesity and chronic fatigue, and, the effect of electromagnetic radiation on the body's brain, respiratory and skin barriers:
- http://www.foodsmatter.com/es/health_risks/articles/goldsworthy-obesity-05-12.html

# Cancers

*New **WHO-Funded Study Reports** High Certainty of the Evidence Linking Cell Phone Radiation to Cancer in Animals*

**See 2025 press release from the International Commission on the Biological Effects of Electromagnetic fields, ICBE-EMF:**

- *icbe-emf.org/who-funded-study-reports-high-certainty-of-the-evidence-linking-cell-phone-radiation-to-cancer-in-animals/*
- Use of Mobile and Cordless Phones and the Association with **Prostate Cancer** Hardell, Lennart & Carlberg, Michael for *Fortune Journal of Health Sciences* vol. 8, 2. April 4, 2025: *www.fortunejournals.com/articles/use-of-mobile-and-cordless-phones-and-the-association-with-prostate-cancer.html*

**2018 U.S. National Toxicology Program & Italian Study Confirm Cell Phones and Cell Towers Cause Cancer**

- See the NTP website which indicates radiofrequency radiation is associated with "**Clear evidence of tumors**" -- the highest warning they can issue:

*https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html?utm_source=direct&utm_medium=prod&utm_campaign=ntpgolinks&utm_term=cellphone*

In the following article, study designer and former **NTP Senior Scientist Ronald L. Melnick, PhD.**, counters with facts the industry spin intended to downplay the NTP study findings:

*https://www.sciencedirect.com/science/article/pii/S0013935118304973?via=ihub*

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    - In January 2020 the National Institutes of Environmental Health (NIEHS) published the following article from **NTP scientist Michael Wyde, Ph.D.,** confirming brain, heart and adrenal tumors and that more research is underway to understand the impact of adding 5G millimeter waves to the existing exposures from 2G, 3G and 4G radiation: https://factor.niehs.nih.gov/2020/1/community-impact/5g-technology/index.htm

- See study findings by the **Ramazzini Intstitute** study in Italy, which corroborates the NTP study findings: https://www.sciencedirect.com/science/article/pii/S0013935118300367?via%3Dihub
- The European Union has commissioned the largest ever 14-country epidemiological study on the *Risk of brain cancer from exposure to radiofrequency fields in childhood and adolescence.* It is referred to as the**MOBI-KIDS study.** The following provides information, and the final report with conclusions and recommendations is due out soon: https://cordis.europa.eu/project/rcn/89894/reporting/en
- Longtime World Health Organization advisor Anthony B. Miller, M.D., and other experts, confirm radiofrequency (RF) radiation from any source now fully meets the World Health Organization criteria to be classified as a "**Group 1 carcinogenic to humans" agent:** https://www.sciencedirect.com/science/article/pii/S0013935118303475?via%3Dihub
- BioMed Research International published a peer-reviewed study by Michael Carlberg, MSc, and Lennart Hardell, M.D., Ph.D. concluding "**RF radiation should be regarded as a human carcinogen causing glioma**." https://www.hindawi.com/journals/bmri/2017/9218486/
- In 2018 **IEEE Microwave Magazine published, "Clear Evidence of Cell Phone RF Radiation Cancer Risk" by Dr. James Lin:** https://ieeexplore.ieee.org/document/8425056/?part=1
- Dr. Lin's article is also available in full here: http://www.avaate.org/IMG/pdf/lin_2018.pdf
- 2020 meta-analysis study: "In sum, the updated comprehensive meta-analysis of case-control studies found **significant evidence linking cellular phone use to increased tumor risk**, especially among cell phone users with cumulative cell phone use of 1000 or more hours in their lifetime (which corresponds to about 17 min per day over 10 years), and especially among studies that employed high quality methods." https://www.mdpi.com/1660-4601/17/21/8079

**Cancer Prevalence on the Rise**

- See **Arthur Firstenberg's** prevalance data: cellphonetaskforce.org/humans-bees-and-wildlife-in-2023/
- Schools are reporting clusters of formerly rare cancers among children and staff; note, the science shows RF can directly cause cancer and it can also be a co-carcinogen, causing existing cancers to grow more rapidly as may be the case at Weston Elementary School in **Ripon, CA** if it is found that the contaminated soil is also a co-carcinogen. Eight students and teachers have cancer to date: https://fox40.com/2019/04/03/ripon-parents-continue-to-fight-to-uncover-cause-of-childrens-cancer/
- The fifth student in Cannon-McMillan School District in **Washington, PA** has been diagnosed with Ewing's Sarcoma: https://pittsburgh.cbslocal.com/2019/03/25/ewings-sarcoma-cancer-cluster-washington-county/
- Four students in the same graduation class of 2019 have been diagnosed with cancer, plus two others, and there are cell towers on the roof of **Rocky Mountain High School in Colorado**: https://denver.cbslocal.com/2019/03/04/rocky-mountain-high-students-cancer/
- In 2018, the Centers for Disease Control (CDC) reported **increases in brain, kidney, liver and thyroid cancers among US children** (under age 20): https://ehtrust.org/cdc-finds-brain-liver-and-thyroid-cancers-increasing-among-us-children-2001-2014/
- **India is reporting an increase in brain tumors**, including among children: http://www.asianage.com/metros/delhi/100717/brain-tumour-among-children-on-the-rise-in-india.html
- The incidence of glioblastoma multiforme (GBM), the deadliest type of brain tumor, **more than doubled in England** between 1995 and 2015: http://microwavenews.com/news-center/gbms-rising-uk
- In the U.S. the American Cancer Society reports a **sharp rise in colon cancer and rectal cancer among young adults**: https://www.cancer.org/latest-news/study-finds-sharp-rise-in-colon-cancer-and-rectal-cancer-rates-among-young-adults.html
    - This study indicates a **fourfold increase in rectal cancer**: https://www.somatopublications.com/increased-generational-risk-of-colon-and-

rectal-cancer-in-recent-birth-cohorts-under-age-40-the-hypothetical-role-of-radiofrequency-radiation-from-cell-phones.pdf

- **Military pilots** are also seeing an increase in cancers from the sun's ionizing radiation,the interior of the plane's non-ionizing man-made radiation exposures, and the radar used for weaponry: https://duckduckgo.com/?q=we-are-dropping-like-flies-ex-fighter-pilots-push-for-earlier-cancer-screenings&atb=v234-1&ia=web
- **Canadian military pilot's terminal cancer likely linked to service, appeal board rules:** www.ctvnews.ca/vancouver/article/canadian-pilot-granted-posthumous-benefits-after-veterans-affairs-denied-cancer-link/
- DARPA also investigated the **neurological impact of EMFs on military and commercial pilots**: https://www.forbes.com/sites/michaelpeck/2020/09/14/cockpit-electromagnetic-fields-are-harming-pilots-the-us-military-fears/?fbclid=IwAR3vF635kN3-p8z50AT1HxrfCMhwTqevoTg7mLUodnJU8AQHpovg1vF8x18#4fd97b183d57
- See the **Study on the Incidence of Cancer Diagnosis and Mortality Among Military Aviators and Aviation Support Personnel**: www.documentcloud.org/documents/23713702-military-pilots-cancer-study/

**More on the NTP and Ramazzini Studies**

- In 2016 the **U.S. National Toxicology Program** (NTP) released partial findings in a $25 million study indicating cell phone radiation causes cancer: *http://ntp.niehs.nih.gov/update/2016/6/cellphones/index.html*
- The NTP held a press conference to inform the public on this: *http://www.niehs.nih.gov/news/newsroom/releases/2016/may27/*
- At the Israeli Institute of Advanced Studies at Hebrew University, Ronald L Melnick, PhD, the toxicologist who designed the NTP study, now retired, was joined by Devra Davis PhD MPH, to discuss the study findings that **cell phone radiation-exposed animals had increased brain and heart tumors**: *https://www.youtube.com/watch?v=rM3_Qdv1hFE&feature=youtu.be&t=11m2s*

- Following is the *NTP Toxicology and Carcinogenicity Studies of Cell Phone Radiofrequency Radiation* **PowerPoint presentation** given by Michael Wyde, PhD, DABT National Toxicology Program, National Institute of Environmental Health Sciences on June 8, 2016 at the BioEM2016 Meeting, Ghent, Belgium: http://ntp.niehs.nih.gov/ntp/research/areas/cellphone/slides_bioem_wyde.pdf
- Joel M. Moskowitz, Ph.D., Director, Center for Family and Community Health, University of California, Berkeley provides a sheet for sifting through the **factual reporting vs. industry spin** on the NTP report: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo0ZjU2MDRlMDY3ZTI3OWU3
- In 2018 the NTP released the rest of the study findings and the review panel ruled **cell phone radiation is carcinogenic**. See the details below, including the submitted comments from scientists and public health organizations: http://www.saferemr.com/
- The **American Cancer Society** in 2016 called the NTP study paradigm-shifting good science: http://pressroom.cancer.org/NTP2016
- Researchers with the renowned **Ramazzini Institute (RI) in Italy** also found in a large-scale lifetime study of lab animals exposed to environmental levels of cell tower radiation developed cancer. See press release below: http://www.digitaljournal.com/pr/3706604#ixzz5BWwahrrK

**Industry Suppression of Harm**

- Microwave News provides information on how **industry and military conflicts of interest have suppressed evidence of harm** from wireless radiation and appear to be doing so with the NTP study as well: http://microwavenews.com/news-center/what-changed
- The Nation magazine published a 2018 investigative report on **how big wireless has kept cancer information from the public** for decades: https://www.thenation.com/article/archive/how-big-wireless-made-us-think-that-cell-phones-are-safe-a-special-investigation/

- National Public Radio (NPR) **On Point** aired a national program following the above article's release: https://player.wbur.org/onpoint/2018/04/05/cell-phones-cancer-connection
- The above article from The Nation also prompted a two-part report from **Democracy Now**:
  https://www.democracynow.org/2018/4/5/how_the_wireless_industry_convinced_the
  https://www.democracynow.org/2018/4/5/how_big_wireless_war_gamed_the

**History of World Health Organization and EMFs**

- In 2011, the World Health Organization's International Agency for Research on Cancer (IARC) classified wi-fi as **possibly carcinogenic to humans**. Please see the attached WHO PowerPoint (REF_Poster2012.ppt) summarizing their *Radiofrequency Electromagnetic Fields: evaluation of cancer hazards*. Note the findings for children:

"For children – compared with adults – the average deposition of RF-energy from a mobile phone can be up to 2-fold higher in the brain and up to 10-fold higher in the bone marrow of the skull."

- Cancer can take many years to develop, and even longer for medical studies to be done. At the time of the studies reflected in the WHO report, personal wi-fi devices were not yet a consideration so the studies centered around cordless telephones, mobile telephones (cell phones), and Bluetooth. That's why we see more about cell phone impact than wi-fi in the earlier studies, but the wi-fi studies are beginning to come out now too. The WHO recognized this need for more research so they elevated radiofrequency electromagnetic fields to *possibly carcinogenic to humans (Group 2B)* and commissioned studies that are underway around the world today.
- Since research takes time, it may be a while before the WHO reclassifies EMFs from "Group 2B Possibly carcinogenic to humans" to "Group 2A Probably carcinogenic to humans" or "Group 1 Carcinogenic to humans". They apply extremely rigorous standards when making these classifications (see IARC Monographs Preamble). It is important to note that the WHO found enough compelling research that they could no longer label EMFs in the lower classifications of "Group 3 Not classifiable as to its carcinogenicity to humans" or "Group 4 Probably not carcinogenic to humans".

- If you hear someone say electromagnetic radiation is in the same category as **coffee and pickled vegetables**, please know that is likely the passing along of industry spin. There was a certain Asian population that was susceptible to cancer from the formaldehyde in a certain kind of pickled vegetables so pickled vegetables did belong on the list of possible human carcinogens. With coffee, it was the chemicals used in the growing process. The science continued and coffee has since been removed from the list. The list of 2B agents also contains **lead, thalidomide, gasoline, engine exhaust and diesel** along with hundreds of other toxic chemicals. We have safety precautions in place for those, but none yet for wireless radiation and so we continue to bathe our population in it.
- As the Environmental Health Trust reports, "**Dr. Hardell** is an International Agency for the Research on Cancer expert and now states that wireless "should be regarded as human carcinogen requiring urgent revision of current exposure guidelines."

Read his 2014 research published in the Journal of Environmental Research and Public Health entitled Decreased Survival of Glioma Patients with Astrocytoma Grade IV (Glioblastoma Multiforme) Associated with Long-Term Use of Mobile and Cordless Phones which determined the use of wireless phones in the >20 years latency group (time since first use) was correlated to decreased survival for those diagnosed with astrocytoma grade IV. The conclusion reads, "Due to the relationship with survival the classification of IARC is strengthened and **RF-EMF should be regarded as human carcinogen requiring urgent revision of current exposure guidelines.**"

- Longtime World Health Organization advisor Anthony B. Miller, M.D., confirm in 2017 radiofrequency (RF) radiation from any source now fully meets the criteria to be classified as a "**Group 1 carcinogenic to humans" agent:**

*http://www.sbwire.com/press-releases/cancer-expert-declares-cell-phone-and-wireless-radiation-as-carcinogenic-to-humans-849135.htm*

- In 2018, following the NTP and Ramazzini findings, to prioritize potential adverse health outcomes, WHO conducted a broad international survey in 2018. Ten major topics were identified for which WHO will now commission **systematic reviews in 2020** to analyze and synthesize the available evidence: web.archive.org/web/20200514165110/https:/www.who.int/peh-emf/research/rf_ehc_page/en/index1.html

**Conflicts of Interest at the World Health Organization**

- Note, as with many of our public health organizations, there is evidence of heavy industry influence at the WHO. Some of the original committee members believe there is enough evidence now to give electromagnetic radiation a higher carcinogenicity classification. In 2016 the authors of the BioInitiative Report, which summarizes thousands of peer-reviewed scientific studies showing wireless technology is harmful, submitted a **No-Confidence letter** to the WHO's EMF program manager because the committee no longer includes appropriate representation from non-industry funded EMF scientific experts: http://www.bioinitiative.org/bioinitiative-working-group-issues-a-no-confidence-letter-to-the-who-emf-program-manager/.
- The **Russian National Committee on Non-Ionizing Radiation Protection** issued a similar letter in March 2017.
- Over 200 of the world's leading EMF scientists and biologists bravely signed **a formal appeal to the World Health Organization** in 2015 with a clear plan to inform and protect the public from wireless radiation. The WHO has not responded. Columbia University's Dr. Martin Blank provides a three-minute introduction to the Appeal we should all hear: https://vimeo.com/123468632
- The head of the WHO's International EMF Project has heavy ties to the telecom industry. Further, she does not have EMF scientific or medical credentials and is not listening to the scientists proving electromagnetic fields are hazardous. A former UN employee, **Olga Sheean** of Canada, submitted a petition to get qualified leadership in place: http://olgasheean.com/who-emf/.
- In 2017, the International Journal of Oncology published a report by Dr. Lennart Hardell explaining **the WHO has conflicts of interest** with industry and does not plan to take action to protect the public from non-thermal electromagnetic radiation, even though the scientific and epidemiological evidence of harm is well documented:
- https://www.spandidos-publications.com/10.3892/ijo.2017.4046

**BioInitiative Report**

The WHO announced their classification in 2011, and the 2012 BioInitiative Report came out in January 2013. The report cites many studies done in the prior six years, for cancer and other serious health concerns from EMFs. Feel free to **look up the individual studies** included in the report.

**Additional Studies**

A quick Google search returns additional studies that have been released since the 2012 BioInitiative Report:

- U.S. National Library of Medicine | National Institutes of Health: Using the Hill viewpoints from 1965 for evaluating strengths of evidence of the risk for brain tumors associated with use of mobile and cordless phones, Hardell L., Carlberg M. conclude: "**Based on the Hill criteria, glioma and acoustic neuroma should be considered to be caused by RF-EMF emissions** from wireless phones and regarded as carcinogenic to humans, classifying it as group 1 according to the IARC classification. Current guidelines for exposure need to be urgently revised." http://www.ncbi.nlm.nih.gov/pubmed/24192496
- The following study indicates **brain tumors are on the rise in the U.S. among adolescents and young adults**: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo2MGVhNWJmZWU1ZWQxMzU2
- 2013 National Institutes of Health: Electromagnetic field exposure and **male breast cancer** risk: a meta-analysis of 18 studies:
- CONCLUSIONS: This meta-analysis suggests that EMF exposure may be associated with the increase risk of male breast cancer despite the arguments raised. http://www.ncbi.nlm.nih.gov/pubmed/23534787
- 2013 Low levels of radiofrequency electromagnetic fields and **cancer cell proliferation** in vivo: http://meetinglibrary.asco.org/content/114037-132
- The following study evaluates breast cancer from EMFs. It is followed by two videos of young women and men dealing with this type of cancer from keeping their cell phones in their bras and shirt pockets: http://www.ncbi.nlm.nih.gov/m/pubmed/24151509/

http://www.youtube.com/watch?v=OAnhxyf6FDs
http://www.wgal.com/news/8-on-your-side/did-cellphone-cause-womans-breast-cancer/-/17986766/19999702/-/3x3butz/-/index.html

- In the attached presentation, *Electromagnetic Fields (EMF) and Health Risk: A Scientific Perspective,* Martin Blank, Ph.D., Columbia University, indicates among other findings that **EMFs are overriding Tamoxifen and breast cancer cells continue** to grow.
- Joel Moskowitz, Ph.D., University of California, Berkeley, authored, "**Brain Tumor Rates Are Rising** in the US: The Role of Cell Phone & Cordless Phone Use": http://www.saferemr.com/2015/05/brain-tumor-rates-are-rising-in-us-role.html
- In 2015, Dr. Martin Blank, now representing **220 scientists worldwide**, made an international appeal to the United Nations and the World Health Organization calling for Protection from Non-ionizing Electromagnetic Field Exposure. Dr. Blank provides a three-minute video introduction to the Advisory: https://emfscientist.org/.
- The two-page **Advisory** is provided in full below, along with scientists from countries around the world: http://www.emfscientist.org/index.php/emf-scientist-appeal

# Neurological Effects

See Building Biologist Michael Kagelidis' well-resourced article **How Are EMFs and Sleep Connected & Innovative Ways To Treat Insomnia:**

- **www.home-biology.com/electromagnetic-radiation/emf-radiation-health-effects/insomnia**

Below are studies showing **effects of Wi-Fi and cell phones on anxiety, depression, neurodegeneration, memory and/or learning:**

- July 2025: "Thus, there may be a need to consider monitoring of **neurodevelopmental outcomes in children** in whom RF-EMF radiations are expected to be higher (such as very close to cell phone towers and too many gadgets in the house)." Open access paper: https://www.cureus.com/articles/381425-radiofrequency-electromagnetic-field-emissions-and-neurodevelopmental-outcomes-in-infants-a-prospective-cohort-study#!/
- April 2024: Pall, M. **Central Causation of Autism/ASDs** via Excessive $[Ca^{2+}]i$ Impacting Six Mechanisms Controlling Synaptogenesis during the Perinatal Period: The Role of Electromagnetic Fields and Chemicals and the NO/ONOO(-) Cycle, as Well as Specific Mutations: pmc.ncbi.nlm.nih.gov/articles/PMC11119459/
- September 2022: Dominique Belpomme and Philippe Irigaray in this study indicate **electrohypersensitivity is a neurological disorder** with inflammation, oxidative stress, blood brain barrier opening and neurotransmitter abnormalities: **www.sciencedirect.com/science/article/pii/S0013935122007010?via%3Dihub**
- March 2022: Pall, M. Low Intensity Electromagnetic Fields Act via Voltage-Gated Calcium Channel (VGCC) Activation to Cause **Very Early Onset Alzheimer's Disease: 18 Distinct Types of Evidence.** **www.eurekaselect.com/article/120618**
- **Anxiety and OCD** is an effect of diminished blood flow to brain https://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+8564319
- Cell phone radiation can cause diminished blood flow in the brain, as shown in Aalto et al. "**Mobile phone affects cerebral blood flow in humans**". J Cereb Blood Flow Metab

2006;26(7):885–90 Full text http://journals.sagepub.com/doi/pdf/10.1038/sj.jcbfm.9600279

- Belpomme's study (p. 260) says that **diminished blood flow to the brain (hypoperfusion) is a biomarker for EHS** http://ehs-mcs.org/fichiers/1454070991_Reliable_biomarkers.pdf
- Heuser's study found that **7 out of 10 people with EHS had diminished blood flow to the brain** https://www.afm-sicem.fr/images/images/Reviews%20on%20Environmental%20Health%20Functional%20brain%20MRI%20in%20patients%20complaining%20of%20electrohypersensitivity%20after%20long%20term%20exposure%20to%20electromagnetic%20fields.pdf
- Mortazavi et al, 2011. The **Pattern of Mobile Phone Use and Prevalence of Self-Reported Symptoms in Elementary and Junior High School Students** in Shiraz, Iran. Iran J Med Sci June 2011; Vol 36 No 2

In a study of 469 healthy elementary and junior high school students, statistically significant higher prevalence of self-reported symptoms such as headache (P=0.009, table 1), myalgia (P=0.0002, table 2 ), palpitation (P=0.0001, table 2), fatigue (P=9×10-8, table 2), attention problems (P=0.0002, table 3) and nervousness (P=9×10-8, table 3) was found in students who had used mobile phones compared to those never used these phones. Furthermore, a statistically significant association was found between the time mobile phones were used in talk mode and the number of headaches per month (P=0.035), number of vertigo per month (P=0.036), number of sleeping problem per month (P=0.002), or even the site of headache (P=0). Full Text: https://www.researchgate.net/publication/215654709_The_Pattern_of_Mobile_Phone_Use_and_Prevalence_of_Self-Reported_Symptoms_in_Elementary_and_Junior_High_School_Students_in_Shiraz_Iran

- Pall, M. "**Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression**" Journal of Chemical Neuroanatomy 75 (2016) 43–51

*"Soviet and Western literature shows that much of the impact of non-thermal microwave exposures in experimental animals occurs in the brain and peripheral nervous system... These*

*may be generated through roles of VGCC activation, producing excessive neurotransmitter/neuroendocrine release as well as oxidative/nitrosative stress and other responses… Excessive VGCC activity has been shown to have roles in producing neuropsychiatric changes in humans. Two U.S. government reports from the 1970s to 1980s provide evidence for many neuropsychiatric effects of non-thermal microwave EMFs, based on occupational exposure studies. 18 more recent epidemiological studies, provide substantial evidence that microwave EMFs … can each produce similar patterns of neuropsychiatric effects…Among the more commonly reported changes are sleep disturbance/insomnia, headache, depression… fatigue/tiredness…concentration/attention dysfunction, memory changes, dizziness, irritability, loss of appetite... restlessness/anxiety, nausea, skin burning/tingling/dermographism and EEG changes. In summary, then, the mechanism of action of microwave EMFs, the role of the VGCCs in the brain, the impact of non-thermal EMFs on the brain, extensive epidemiological studies performed over the past 50 years, and five criteria testing for causality, all collectively show that various non-thermal microwave EMF exposures produce diverse neuropsychiatric effects."*

Full Text: https://www.researchgate.net/publication/281261829_Microwave_frequency_electromagnetic_fields_EMFs_produce_widespread_neuropsychiatric_effects_including_depression

- Another similar review paper by Pall in 2018, focusing only on health effects and neuropsychiatric effects from Wi-Fi, "**Wi-Fi is an Important Threat to Human Healt**h" Environmental Research Volume 164, July 2018, Pages 405-416 https://www.sciencedirect.com/science/article/pii/S0013935118300355

- Buchner and Eger, 2011. A study done on a German town (Rimbach) of 60 people before (Jan/Feb 2004) and after (thru July 2005) a **cell tower installation showed statistically significant effects on neurotransmitters** at peak cell phone signal exposure levels of 60-100 uW/m2. Noradrenaline and adrenaline INCREASED, while dopamine and PEA DECREASED. Noradrenaline and adrenaline going up signify increased stress levels (or increased anxiety), and dopamine going down decreases ability to concentrate, and decreased PEA is implicated in ADD as low PEA appears in a large proportion of ADD (Ritalin, a chemical similar to PEA, is used in ADD treatment).

Study also says that children and chronically ill are more vulnerable to effects of wireless radiation, and that exposure to other wireless signals such as Wi-Fi amplifies the effects of the

cell phone radiation on noradrenaline, adrenaline in children and the chronically ill (people with allergies). Full text: https://ecfsapi.fcc.gov/file/7520941673.pdf

- Dasdag et al. "Effects Of 2.4 Ghz Radiofrequency Radiation Emitted From Wi-Fi Equipment On microRna Expression In Brain Tissue." *International Journal of Radiation Biology*, vol. 16, 2015, pp. 1-26.

Study showed that "**l*ong-term exposure of 2.4 GHz Wi-Fi may lead to adverse effects such as neurodegenerative diseases** originated from the alteration of some miRNA expression. Results were statistically significant. Long Term exposure* [24 hours a day for 1 year] *to 2.4 GHz Wi-Fi radiation can alter expression of some of the miRNAs such as miR-106b-5p (adj p * _ 0.010) and miR-107 (adj p * _ 0.005). We observed that mir 107 expression is 3.3 times and miR-106b-5p expression is 3.65 times lower in the exposure group than in the control group. "*

Full Text: https://www.researchgate.net/publication/273637962_Effects_of_24_GHz_radiofrequency_radiation_emitted_from_Wi-Fi_equipment_on_microRNA_expression_in_brain_tissue

- Saikhedkar N, et al. Effects of mobile phone radiation (900 MHz radiofrequency) on structure and functions of rat brain. Neurological Research, vol. 2, no. 6, 2014, pp. 2499-504.

Rats (age 30 days, 120 ¡ 5 g) were exposed to 900 MHz radio waves (cell phone) at an average SAR of 0.99 W/kg by means of a mobile hand set for 4 hours per day for 15 days. [Cell phones sold in the US are not to exceed a SAR of 1.6W/kg] "*A **significant change in behavior, i.e., more anxiety and poor learning** was shown by test animals as compared to controls and sham group. A significant change in level of antioxidant enzymes and nonenzymatic antioxidants, and increase in lipid peroxidation were observed in test rats. Histological examination showed neurodegenerative cells in hippocampal sub regions and cerebral cortex. Discussion: Thus our findings indicate extensive neurodegeneration on exposure to radio waves. Increased production of reactive oxygen species due to exhaustion of enzymatic and non-enzymatic antioxidants and increased lipid peroxidation are indicating extensive neurodegeneration in selective areas of CA1, CA3, DG, and cerebral cortex. This extensive neuronal damage results in alterations in behavior related to memory and learning."*

*"A neuronal damage of the kind described here may not have immediate demonstrable consequences, but* ***in the long run it may result in reduced brain reserve capacity that might be unveiled by other late neuronal diseases****. We cannot exclude the possibility that after some decades of daily (often) use, a whole generation of users may suffer from the negative effects, perhaps as early as in middle age."* Full Text: https://www.researchgate.net/publication/273950390_effect_of_mobile_phone_radiation_on_structure_and_functions_of_the_brain

- Varghese, Rini, et al. "Rats exposed to 2.45 GHz of non-ionizing radiation exhibit behavioral changes with increased brain expression of apoptotic caspase 3." Pathophysiology (2017).

Rats were exposed to 2.45 GHz Wi-Fi for 4 h/day for 45 days at 7.88W/m2 (=788uW/cm2) [FCC limit is 1000uW/cm2 for 30 minutes, so exposure within US limits]

*"The* ***exposed rats elicited memory decline and anxiety behavior****. Exposure decreased activities of super oxide dismutase, catalase and reduced glutathione levels whereas increased levels of brain lipid peroxidation was encountered in the radiation exposed rats, showing compromised anti-oxidant defense. reduction in number of dendritic branching and intersections which corresponds to alteration in dendritic structure of neurons, affecting neuronal signaling. The study clearly indicates that exposure of rats to microwave radiation of 2.45 GHz leads to detrimental changes in brain leading to lowering of learning and memory and expression of anxiety behavior in rats along with fall in brain antioxidant enzyme systems."* Full Text http://www.pathophysiologyjournal.com/article/S0928-4680(17)30052-4/pdf

- Zhang, Jet al, 2017. Effects of 1.8 GHz Radiofrequency Fields on the **Emotional Behavior and Spatial Memory of Adolescent Mice**. International Journal of Environmental Research and Public Health. **2017**, 14, 1344; doi:10.3390/ijerph14111344

4 week exposure to 1.8GHz at 2.2 W/kg in mice increased anxiety-like behavior in rats. GABA levels decreased significantly after RF exposure. Full Text https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5707983/pdf/ijerph-14-01344.pdf

- Kim, Ju Hwan, et al. "Long-term exposure to 835 MHz RF-EMF induces hyperactivity, autophagy and demyelination in the cortical neurons of mice." Scientific Reports, vol. 7, no. 41129, 2017.

Study found that RF-EMF exposure led to **myelin sheath damage and hyperactivity-like behaviour** in mice exposed to 835 MHz RF-EMF at a specific absorption rate (SAR) of 4.0 W/kg for 5 hours/day during 12 weeks. Demyelination was induced in cortical neurons following prolonged RF-EMF exposure and suggests a potential cause of neurological or neurobehavioural disorders. Full Text https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5247706/pdf/srep41129.pdf

- Redmayne M, Johansson O. Could myelin damage from radiofrequency electromagnetic field exposure help explain the functional impairment electrohypersensitivity? A review of the evidence.Journal of Toxicology and Environmental Health, vol. 17, no. 5, 2014, pp. 247-58.

Review of the evidence for an association between myelin integrity and exposure to low-intensity radiofrequency electromagnetic fields (RF-EMFs).

*"Overall, evidence from in vivo and in vitro and epidemiological studies suggests an **association between RF-EMF exposure and either myelin deterioration or a direct impact on neuronal conduction, which may account for many electrohypersensitivity symptoms**. The most vulnerable are likely to be those in utero through to at least mid-teen years, as well as ill and elderly individuals."* Full Text: http://www.avaate.org/IMG/pdf/redmayne_johansson_2014.pdf

- Sage, C. and Burgio, E. (2017), Electromagnetic Fields, Pulsed Radiofrequency Radiation, and Epigenetics: How Wireless Technologies May Affect Childhood Development. Child Dev. doi:10.1111/cdev.12824

*"New epigenetic studies are profiled in this review to account for some **neurodevelopmental and neurobehavioral changes due to exposure to wireless technologies**. Symptoms of retarded memory, learning, cognition, attention, and behavioral problems have been reported in numerous studies and are similarly manifested in autism and attention deficit hyperactivity disorders, as a result of EMF and RFR exposures where both epigenetic drivers and genetic (DNA) damage are likely contributors. Technology benefits can be realized by adopting wired devices for education to avoid health risk and promote academic achievement."*

Full Text
https://eliant.eu/fileadmin/user_upload/de/pdf/Sage_Burgio_Childhood_2017_Epigenetics.pdf

- Ezz et al, The effect of pulsed electromagnetic radiation from mobile phone on the levels of monoamine neurotransmitters in four different areas of rat brain. European Review for Medical and Pharmacological Sciences. 2013; 17: 1782-1788

Adult rats were exposed daily to EMR (frequency 1800 MHz, specific absorption rate 0.843 W/kg, power density 0.02 mW/cm2, modulated at 217 Hz) and sacrificed after 1, 2 and 4 months of daily EMR exposure as well as after stopping EMR for 1 month (after 4 months of daily EMR exposure). RESULTS: The exposure to EMR resulted in **significant changes in DA, NE and 5-HT [serotonin]** in the four selected areas of adult rat brain.

CONCLUSIONS: The exposure of adult rats to EMR may cause disturbances in monoamine neurotransmitters and this may underlie many of the adverse effects reported after EMR including **memory, learning, and stress**.

Full Text https://www.europeanreview.org/wp/wp-content/uploads/1782-1788.pdf

- **A 2016 study found altered brain structure in college students who were addicted to mobile phone use. Decreased b**rain grey matter volume and abnormal white matter integrity were found via functional magnetic resonance images (fMRI). https://www.frontiersin.org/articles/10.3389/fpsyg.2016.00597/full

University of Maryland students admitted to cravings, anxiety attacks, and depression when abstaining from mobile phones, laptops and television as well as Facebook and Twitter. (Hough, Andrew, The Telegraph, April 8, 2011, http://www.telegraph.co.uk/technology/news/8436831/Student-addiction-to-technology-similar-to-drug-cravings-study-finds.html).

- **To read more scientific research on effects of wireless radiation on the brain** https://ehtrust.org/brain-development-cell-phones-wireless-scientific-research-neurotoxic-effects-wireless-radiation/

**Prevalence of Neurotoxicity**

**Anxiety, ADHD, depression and autism** have been increasing at alarming rates in children, adolescents, and young adults. The statistics:

- According to a study in 2010, **five to eight times as many high school and college students** meet the criteria for diagnosis of major depression and/or anxiety disorder compared to 50 years ago. This increased psychopathology is NOT the result of changed diagnostic criteria https://www.psychologytoday.com/us/blog/freedom-learn/201001/the-decline-play-and-rise-in-childrens-mental-disorders
    - **ADHD has increased 53% in the US** over the last decade per the CDC. For ages 14 to 17, 19 % of boys and 10% of girls now have ADHD.
    - In May 2013, CDC reported in "Mental Health Surveillance Among Children—United States, 2005–2011," the following: *"A total of **13%–20% of children** living in the United States experience a mental disorder in a given year, and surveillance during 1994–2011 has shown the prevalence of these conditions to be increasing."*
    - October 2013: http://health.usnews.com/health-news/health-wellness/articles/2013/10/10/how-to-cope-when-school-anxiety-lingers
    - November 2013: Time Magazine reports that the **anxiety disorders are on the rise:** http://swampland.time.com/2013/11/05/anxiety-disorders-on-the-rise-in-the-ranks/
- September 2007: The number of American children and adolescents treated for **bipolar disorder increased 40-fold from 1994 to 2003** (only a 10-year period) The senior author of the study, Dr. Mark Olfson of the New York State Psychiatric Institute at the Columbia University Medical Center, said, *"I have been studying trends in mental health services for some time, and this finding really stands out as one of the most striking increases in this short a time."* The increase makes bipolar disorder more common among children than clinical depression, the authors said. http://www.nytimes.com/2007/09/04/health/04psych.html?_r=
- October 2010: **Autism has increased 600%** in prevalence over the last two decades. http://autisminnb.blogspot.com/2012/07/burden-of-proof-iacc-director-insels.html In 2014, CDC estimated 1 in 68 children are

autistic http://www.usatoday.com/story/news/nation/2014/03/27/autism-rates-rise/6957815/

- August 2015: Washington Post reports **people are developing dementia a decade earlier** compared to 20 years ago (2010 vs. 1990) The disease is now regularly diagnosed in people in their late 40s and death rates from early onset dementia are soaring. The study found that deaths caused by neurological disease had risen significantly in adults aged 55 to 74 and more than doubled in the over-75 population overall.

  The problem was particularly acute in the United States, where neurological deaths in men aged over 75 have nearly tripled and in women increased more than fivefold. *"The rate of increase in such a short time suggested a silent or even a hidden epidemic, in which environmental factors must play a major part, not just aging."* The environmental factors cited included chemical pollution and increased background electromagnetic fields (which includes wireless radiation) https://www.washingtonpost.com/world/people-are-developing-dementia-earlier-and-dying-of-it-more-a-study-shows/2015/08/06/599b16b8-3c0a-11e5-8e98-115a3cf7d7ae_story.html?wprss=rss_world.

- Feb. 24, 2016: the American Brain Tumor Association has found that brain cancer is the highest cause of cancer deaths in ages 15-39 and the most common cancer among 15-19 year olds. There's also been an **increase in Malignant Brain and Central Nervous System Tumors in American children.** For ages 0-14 between 2000-2010, it has increased annually 0.6%/yr. In ages 15-19, between 2000-2008, it has increased annually 1.0%/yr. (Read details of the study here http://neuro-oncology.oxfordjournals.org/content/18/suppl_1/i1.full.pdf+html?sid=fe341f7a-b6c5-4ac2-ae9f-6c2d4f54cc08

- In 2011, the U.S. Centers for Disease Control and Prevention (CDC) reported that **antidepressant use in the United States has increased nearly 400 percent in the last two decades, making antidepressants the most frequently used class of medications by Americans ages 18-44 years.** http://www.salon.com/2013/08/26/how_our_society_breeds_anxiety_depression_and_dysfunction_partner/

- In 2022, the **Environmental Working Group** published the consumer guide, *Effects of radiofrequency radiation on the nervous system: An EWG fact sheet*: www.ewg.org/consumer-guides/effects-radiofrequency-radiation-nervous-system-ewg-fact-sheet

Massachusetts for safe TECHNOLOGY

## Question 11 a. Sensitive Populations, children

# Impact on Children

- **Environmental Working Group** fact sheets:
  - *Protecting kids from wireless radiation in school and at home*: www.ewg.org/news-insights/news/2022/11/protecting-kids-wireless-radiation-school-and-home
  - *Effects of radiofrequency radiation on the nervous system: www.ewg.org/consumer-guides/effects-radiofrequency-radiation-nervous-system-ewg-fact-sheet*
  - *Advocacy groups call on the FDA to address radiation exposures from electronic products: www.ewg.org/news-insights/news/2023/06/advocacy-groups-call-fda-address-radiation-exposures-electronic-products*
- Professor Tom Butler summarizes the impact on children in his paper, ***On the Clear Evidence of the Risks to Children from Smartphone and WiFi Radio Frequency Radiation****:*

  http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/On-the-Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation_Final.pdf
- Bioelectromagnetics expert **Dr. Om Ghandi published in IEEE Access**, "Yes the **Children Are More Exposed** to Radiofrequency Energy From Mobile Telephones Than Adults":

  http://ieeexplore.ieee.org/document/7131429/?reload=true&arnumber=7131429&contentType=Journals%20%26%20Magazines
- The **American Academy of Environmental Medicine** has issued an *Open Letter to the Superintendents* imploring them to protect our children.
- The **American Academy of Pediatrics (AAP)**, representing 60,000 pediatricians, in December 2012 urged Congress to protect children from the dangers of wi-fi. "It is

essential that any new standards for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded through their lifetimes." The full letter is published here:

http://www.electrosmogprevention.org/cell-phone-safety-campaign/american-academy-of-pediatrics-supports-rf-protection/

The AAP has also issued policies for **Media and Young Minds (ages 0 to 5) and Media Use in School-Aged Children and Adolescents**:

http://pediatrics.aappublications.org/content/pediatrics/early/2016/10/19/peds.2016-2591.full.pdf

http://pediatrics.aappublications.org/content/pediatrics/138/5/e20162592.full.pdf

- The **World Health Organization** (WHO) acknowledges radiation as a factor in children's environmental health: www.who.int/health-topics/children-environmental-health#tab=tab_1

  In 2019 WHO published guidelines on physical activity, sedentary behavior and sleep for children under 5 years of age, including specific **screen time limitations**: https://www.who.int/news-room/detail/24-04-2019-to-grow-up-healthy-children-need-to-sit-less-and-play-more

- The **EMF Points of Confusion vs. Fact** sheet helps to dispel common misconceptions that parents, teachers and medical teams often have about wireless radiation when first joining the conversation: www.ma4safetech.org/s/EMF-Points-of-Confusion-vs-Fact-Child-112023.pdf

- Martha Herbert, PhD, MD of Harvard Medical School, a leading **neuroscientist and autism expert**, cautioned Los Angeles Unified School District (LAUSD) on the use of WiFi in schools: http://electromagnetichealth.org/electromagnetic-health-blog/herbert-lausd/

- See Dr. Herbert's Findings in **Autism** (ASD) Consistent with Electromagnetic Fields (EMF) and Radiofrequency Radiation (RFR): https://bioinitiative.org/wp-content/uploads/pdfs/sec20_2012_Findings_in_Autism.pdf

- See 2025, Yale Study: Wireless radiation increased the expression of autism-related genes in laboratory models: https://www.ehn.org/wireless-radiation-autism-related-genes?vgo_ee=0GfnUTGaF8NOVA8tPGocp9HPo6Z8JGLBdd5Jv69hB3VwDhdtbg%3D%3D%3A0D09WOX5nftHGT9lJY9rVoBur3ZUtvn2
- **Hugh Taylor, MD, Yale University discusses ADHD symptoms** seen in mice exposed to cell phone radiation: http://vimeo.com/73806192
- Studies have found **adverse effects on offspring** from prenatal exposure to wireless radiation: http://www.saferemr.com/2014/06/joint-statement-on-pregnancy-and.html
- Peter Sullivan offers **EMF reduction strategies for families with autism**: http://www.clearlightventures.com/blog/2014/07/emf-reduction-for-autism.html
- **India** is reporting an **increase in brain tumors**, including among children: *http://www.asianage.com/metros/delhi/100717/brain-tumour-among-children-on-the-rise-in-india.html*
- **LAUSD reduced their EMF exposure** to students and staff, making it 10,000 less than what the FCC's thermal limits allow for public exposure (though it still may be an unsafe biological level when cumulative and simultaneous exposures are considered):

http://www.lausd-oehs.org/docs/Misc/Radiofrequency_Safety_Fact_Sheet_021113a.pdf

- CBS News did a six-minute story on the radiation coming from **baby monitors**:

*https://www.youtube.com/watch?v=j0FoP6-_NQc*

The following outlines the dangers wi-fi poses for children:

**Reported health effects from exposure to electromagnetic radiation EMR**

- Dizziness, headaches, nausea
- Fatigue, weakness
- Anxiety, depression

- Insomnia
- Numbness, tingling, joint pain
- Muscle spasms
- Skin rashes, allergies, asthma
- Blurred vision, impaired vision
- Nose bleeds, impaired sense of smell
- Shortness of breath
- Concentration problems, memory loss
- Behavioural problems, learning problems, ADHD
- Hyperactivity, heart palpitation

**Potential long term health effects from EMR as indicated in scientific studies**

- Brain cancers, acoustic neuromas and other tumours
- Leukaemia
- Lymphoma
- Melanoma
- Reduced production of Melatonin
- Impaired fertility
- DNA damage
- Pre-natal damage, miscarriages, birth defects
- Immune disfunction, chronic allergic responses and inflammatory responses
- Neurological and behavioural effects
- Dementia and Alzheimer's Disease

- Epilepsy

Source: Wi-Fi in Schools Australia - Safe Schools 2012 - Joining the Dots Report - Dr Neil Cherry EMR ICNIRP critique - Freiburg Appeal 2012 - BioInitiative Report 2012 - Dr Magda Havas

- **Dr. Toril Jelter, pediatrician** and general practitioner, discusses EMF, Autism and Child Behavior in an 8-minute video. She prescribes a **two-week trial with limited wi-fi exposure** and patients often have remarkable results in just a few days:

https://www.youtube.com/watch?v=O3iRrVQPDBk

Dr. Jelter also provided this 20-minute lecture, **Health Effects of Non-Ionizing Radiation in Children**:

https://www.youtube.com/watch?v=D98K2zvjBWI

- **Barrie Trower**, a former physicist with the British Royal Navy and expert in radiation, explains in the following two-part lecture the dangers of using wi-fi radiation. He is particularly concerned for the welfare of children and fetuses:

http://www.youtube.com/watch?v=5xgJmeQaQmc

http://www.youtube.com/watch?v=UhcuSEHVOSM

- Retired President of **Microsoft Canada Frank Clegg** warns of Wi-Fi, smartphone, cell tower radiation:

http://whatsyourtech.ca/2013/05/29/canadian-tech-leader-warns-of-wi-fi-smartphone-cell-tower-radiation/

- ***iPads: How Safe Are Our Children?*** was published by The Green Gazette July-August 2013 and is attached below.
- Attached is also a 2013 letter issued by a **Vermont doctor and Dartmouth College professor** to parents, school administrators, teachers, and elected officials.
- Also attached is a 2013 open letter by **UK medical doctors**: Health and safety of Wi-Fi and mobile phones.

**Psychological and Mental Health Impact**

The following studies indicate wireless radiation causes **neurological damage**:

- Pall, M. L. (2016). Microwave frequency electromagnetic fields (EMFs) produce **widespread neuropsychiatric effects including depression**. Journal of Chemical Neuroanatomy, 75(Pt B), 43–51.

*https://doi.org/10.1016/j.jchemneu.2015.08.001*

- Warnke, U., & Hensinger, P. (2013). **Increasing incidence of burnout** due to magnetic and electromagnetic fields of cell phone networks and other wireless communication technologies. (Original: Steigende „Burn-out"-Inzidenz durch technisch erzeugte magnesche und elektromagnesche Felder des Mobil- und Kommunikaonsfunks, Umwelt·medizin·gesellschaft, 26(1), 31-38.

*http://avaate.org/IMG/pdf/warnke_hensinger_umg_1_2013_engl_df.pdf*

Two **child psychologists** have written excellent books on what wi-fi and screen time are doing to our children and our families:

- **Dr. Catherine Steiner-Adair offers *The Big Disconnect*,** which takes one through technology's impact at each stage of child development. Basically, the left side of the brain where math and science are housed is still developing on point. The right side, however, is not in many children. This is where a child's ability to show empathy, employ coping strategies, make eye contact, and self-sooth are housed. In humans, we need regular human contact and deep meaningful interactions with loved ones and teachers to develop these properly. Children also need unstructured time for imaginative play to develop deep parts of our brains. Although well-intended parents think providing their children with technology will give them a leg up, the research is proving otherwise as we begin to see scores dropping after upping technology time, and behavioral and mental health issues are escalating.

- In ***Reset Your Child'sBrain*, Dr. Victoria Dunkley** explains the myriad ways in which children can be harmed by electronic screen syndrome (ESS). Biologically, electronic screen exposure can cause a chronic fight or flight response, and hit the same opiate receptors in the brain as drugs and alcohol causing addiction. Children with attention issues and those with autism are at higher risk of addiction. If not given appropriate time to rest and regenerate, children begin to suffer chronically. Common symptoms are

irritability, depression and mood swings. As ESS progresses, mood disregulation may combine with aggression causing some to be diagnosed with bi-polar disease. Others may develop obsessive-compulsive behavior, nightmares, panic attacks, tics, seizures, etc., as the effects take hold on the brain. Dr. Dunkley demonstrates how freedom from electronic screens can change the brain and alleviate or significantly reduce many of these symptoms. She offers a four-week plan to reverse the effects of ESS. See also her article in Psychology Today.

**Paula Healy** steps us through the **psychological and neurological impact of screentime** in this 37 minute talk, *How our Digital Obsession is Dumbing us Down*:

- https://www.youtube.com/watch?v=OM_lFijB9rA&feature=youtu.be

Dr. Marilyn Wedge explains how screens are impairing development in ***"Virtual Autism"*** *May Explain Explosive Rise in ASD Diagnoses*:

- https://www.madinamerica.com/2017/08/virtual-autism-explain-rising-asd-diagnoses/?fbclid=IwAR0K7A5j36mbGDKdNdafUBPG0TNdHcC9hj4Id_tKJZx6GSf_pcZExVIgJZs

Dr. Delaney Rushton produced the documentary ***Screenagers***, which is being shown in schools around the world to address raising children in the digital age:

- https://www.screenagersmovie.com/

The **New York Times** continues to investigate the effects:

- Apple's Steve Jobs and other **technology executives limited their own children's technology exposure**:

*http://www.nytimes.com/2014/09/11/fashion/steve-jobs-apple-was-a-low-tech-parent.html?smid=fb-share&_r=1*

- *The Digital Gap Between Rich and Poor Kids Is Not What We Expected: America's public schools are still promoting devices with screens — even offering digital-only preschools.* ***The rich are banning screens from class altogether.***

*https://www.nytimes.com/2018/10/26/style/digital-divide-screens-schools.html?action=click&module=RelatedLinks&pgtype=Article*

- *A Dark Consensus About Screens and Kids Begins to Emerge in Silicon Valley: "**I am convinced the devil lives in our phones.**"*

*https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnellie-bowles&version=latest*

- *Silicon Valley Nannies Are Phone Police for Kids: Child care contracts now demand that nannies hide phones, tablets, computers and TVs from their charges: https://www.nytimes.com/2018/10/26/style/silicon-valley-nannies.html*
- See also Business Insider's article, *Silicon Valley parents are raising their kids tech-free — and it should be a red flag:* www.businessinsider.com/silicon-valley-parents-raising-their-kids-tech-free-red-flag-2018-2

# Wi-Fi in Schools

**Legal Action**

- **The first Education Health Care Plan** (EHCP) was awarded in August 2022 for a UK child on the basis of Electromagnetic Hypersensitivity (EHS): phiremedical.org/education-health-care-plan-ehcp-awarded-aug-2022-for-uk-child-on-the-basis-of-electromagnetic-hypersensitivity-ehs/
- German parent sues to **remove wi-fi in school**: time.news/saxony-fear-of-radiation-father-sues-against-wifi-in-the-classroom-regional/

**Overview**

- Urgency: The **U.S. Department of Education's Office of Educational Technology** is piloting six School District Wireless Network Models that expose children and staff directly to close-range cell tower radiation and toxic radiation from wireless devices issued to students. The science below indicates great harm to children. Much better technology can be had by turning away the wireless industry and securing excellent technology with hard-wired fiber-optic connections to and through the premises.
- The **TechSafe Schools** project provides the following for you to share with your schools:
    - TechSafe Schools Webinars on legal risks, science and pediatrician insights, and remediation measures for transitioning to safe technology
    - A personal letter addressed to school administrators
    - A legal letter from seven prominent attorneys with experience in wireless radiation and tort litigation
    - A short Q&A brochure about RF radiation in schools
    - Click here to watch the TechSafe Schools 3-minute video
- This **two-hour expert forum** explains the biological effects on our children from wireless radiation in our schools. Technology safety educator Cece Doucette moderates with physician and scientist **Dr. David Carpenter**, senior toxicologist **Dr. Ronald Melnick**,

pediatric neurologist **Dr. Martha Herbert**, clinical child psychotherapist **Theodora Scarato** and retired Microsoft Canada president **Frank Clegg** (gratitude to Shrewsbury Media Connection): https://www.youtube.com/watch?v=Rpa2XFxYax8&list=PLMAz9ZRXjYmoFALTKtCDXwmB7L9Emigcc

- You are welcome to share the **slide presentation** as well. Please provided appropriate credit to the speakers if you re-use any of the slides: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo0NTkwMGNiMzBiOWRjMTBi
- Worcester News Tonight covered it with their **lead story**: https://www.youtube.com/watch?v=8J868GkWEYw&feature=youtu.be&list=PLrErnc01o-ABCtZ4-MweRbaAbjKastONd
- Note, following the Shrewsbury forum above, **"engineering consultant to government and industry" Kenneth Foster** published the following article in Harvard's *Education Next* publication to create doubt. This is an often used tactic by industry to spread disinformation in a seemingly credible publication: https://www.educationnext.org/is-wi-fi-health-threat-schools-sorting-fact-fiction/
- As the report from **Harvard Law School Center for Ethics** indicates, *Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates*, this is a common big tobacco tactic used to confuse the public and give a false sense of security with wireless radiation: https://ethics.harvard.edu/news/new-e-books-edmond-j-safra-research-lab
    - 
        - One would do well to recognize industry-planted spin, and look to the non-industry funded independent microwave radiation scientists and doctors, including those who presented at the Shrewsbury forum, and protect our collective children from microwave radiation emitted by the industry's toxic wi-fi systems and devices. Hard-wired solutions are much safer, energy-efficient, faster and reliable: https://www.youtube.com/watch?v=8z98xX7lddM

- **Dr. Alexia McKnight** and Cece Doucette presented the facts and solutions as invited speakers for a health and wellness professional development day at Dr. McKnight's children's schools: www.youtube.com/watch?v=1jlyuRcKI5w&list=PLMAz9ZRXjYmpnVJ1BLF3Yx_-jnO4nY9tK&index=23
- The Environmental Health Trust has prepared specific guidelines for **How to Reduce EMF Exposure in Schools and Classrooms**: https://ehtrust.org/policy/how-to-reduce-emf-exposure-in-schools-and-classrooms/
- Dr. Cindy Russell, co-founder of Physicians for Safe Technology, and Environmental Health Trust Executive Director Theodora Scarato produced a **70-minute webinar** for the United Educators of San Francisco, which has passed a Safe Technology Resolution. This is available for all schools to learn the biological risks and solutions for safe technology in our schools: https://www.youtube.com/watch?time_continue=386&v=S7RUeC6zUjg
- The **EMF Points of Confusion vs. Fact** sheet helps to dispel misconceptions that parents and school leaders often have about wireless radiation when first joining the conversation: alpaca-chinchilla-x6xf.squarespace.com/s/EMF-Points-of-Confusion-vs-Fact-3a53.pdf
- The **World Health Organization** in 2019 published guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age, including specific screen time limitations: https://www.who.int/news-room/detail/24-04-2019-to-grow-up-healthy-children-need-to-sit-less-and-play-more
- The **Palo Alto**, California, Parent Teacher Association issued a **Safe Use of Technology for Children During Distance Learning** fact sheet recommending hard-wired technology and other safety strategies any community can use: ptac.paloaltopta.org/wp-content/uploads/Safer-Use-of-Technology-for-Children-During-Distance-Learning.pdf

**Exposure Measurements**

- This 2025 study shows *SAR Estimations in a Classroom with Wireless Computers,* indicating, "Wireless radiation **exposure to a child's head and back increased up to 40-fold** when surrounded by other children with laptops, due to cumulative emissions from all the nearby devices: www.scielo.br/j/jmoea/a/hS9VJvKddrTsTtyqLrVdNZx/?lang=en

- ***Measurements of Radiofrequency Radiation with a Body-Borne Exposimeter in Swedish Schools*** *with Wi-Fi* shows levels far higher than biologically based exposure limits: https://www.frontiersin.org/articles/10.3389/fpubh.2017.00279/full
- Lloyd Burrell took measurements in a classroom and found **radiation levels 3x higher than a cell tower's** emissions: https://www.electricsense.com/wifi-in-schools-gives-off-3-times-as-much-radiation-as-cell-towers/
- Dr. Lennart Hardell and Mona Nilsson's 2025 paper shows **high readings outside Swedish schools, and also provides references ranges for outdoor and indoor exposure goals**: mail.fortunejournals.com/articles/high-radiofrequency-radiation-in-the-surroundings-of-10-schools-in-oumlrebro-sweden.html

**The Science**

- Dr. Martin Pall's 2018 paper summarizes studies showing the **biological harm from wi-fi**, Wi-Fi is an important threat to human health, Environmental Research, Volume 164, July 2018, Pages 405-416: https://www.sciencedirect.com/science/article/pii/S0013935118300355
- To understand the impact on today's **mental health crisis**, see Dr. Pall's, **Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression**, J Chem Neuroanat. 2016 Sep;75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001. Epub 2015 Aug 21. pubmed.ncbi.nlm.nih.gov/26300312/
- With gratitude to the Environmental Health Trust, the following also provides **wi-fi research abstracts indicating evidence of harm**: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYWUwODIyMzQxMDRhZjVh
- Wi-Fi in Schools, U.K., also catalogs much of the **scientific research** finding adverse biological effects or damage to health from Wi-Fi signals, Wi-Fi-enabled devices or Wi-Fi frequencies (2.4 or 5 GHz): http://www.wifiinschools.org.uk/index.html

- This webinar presentation from the University of Michigan addresses growing mental health issues that stem from excessive screen time. This is your brain online: The impact of **Technology on Mental Health**: http://spartanyouth.msu.edu/precollege/documents/ThisisyourbrainonlineforPre-CollegeFacultyandStaffMarch2015.pdf
- Dr. Barrie Trower, Royal Navy microwave weapons expert from the U.K., explains how **wi-fi in schools damages DNA of female students and staff, and their subsequent family lines**: https://www.youtube.com/watch?v=z99_SzoXZdY
- Digital rights groups are calling on lawmakers to **ban facial recognition in schools** after a new study claimed the technology would have many negative implications affecting students: https://www.nationofchange.org/2020/08/11/an-unethical-experimentation-on-children-digital-rights-groups-oppose-facial-recognition-in-schools-backed-by-new-study/

**Expert Recommendations**

- **Safety Recommendations for Children Who Use Digital Technologies to Study at Home** were released during COVID-19 to address age-appropriate screen time limits and necessary breaks, as well as the need to use hard-wired technology with the wireless antennas turned off when possible: https://www.saferemr.com/2015/10/tips-to-reduce-your-wireless-radiation.html
- In 2017, the International Conference on Children, Screen Time and Wireless Radiation was held at the capital of Iceland, Reykjavik. They produced the **Reykjavik Appeal on Wireless Technology in Schools** which is signed by medical doctors, microwave radiation experts, representatives of non-government organizations (NGOs) focused on technology safety, teachers and school personnel. It calls for using only hard-wired technology in schools, with no wi-fi radiation exposure, where possible: http://www.stralskyddsstiftelsen.se/wp-content/uploads/2017/03/Reykjavik-Appeal-170224-2.pdf
- The country of **Cyprus** in the Mediterranean is removing wi-fi from schools: https://ehtrust.org/cyprus-policy-recommendations-cell-phones-wireless-radiation-health/

- The **American Academy of Environmental Medicine** issued an Open Letter to the Superintendents imploring them to protect our children by using hard-wired technology with wi-fi turned off in schools: https://www.aaemonline.org/wp-content/uploads/2020/12/WiredSchools.pdf
- The **Maryland Children's Environmental Health and Protection Advisory Council** in 2016 became the first state agency in the United States to issue a report on Wi-Fi in Schools, and recommend using hard-wired internet connections over wireless: health.maryland.gov/phpa/OEHFP/EH/Shared%20Documents/CEHPAC/MD_CEHPAC_SchoolWiFi_022017_final.pdf
  In 2022 they released an informational factsheet on how to reduce children's wireless exposures entitled "Guidelines to Reduce Electromagnetic Field Radiation": healthytechhome.org/wp-content/uploads/sites/201/CEHPAC-EMF-in-HomeWi-Fi-in-School-Report.pdf
- The Environmental Health Trust maintains a record of **actions taken across the world to protect students and staff** from wireless radiation: http://ehtrust.org/policy/schools-unions-and-pta-actions/
- This includes a Finnish school that has installed **kill switches and timers** to reduce wireless radiation exposure to children and staff: https://ehtrust.org/wi-fi-off-switches-installed-finnish-school-reduce-wireless-radiation-exposure-children/

**Legislation to Protect Schools**

- In 2022 **Louisiana successfully passed** Representative Aimee Adatto Freeman's *HB548 Requires the state Department of Education to develop and distribute health and safety guidelines relative to best practices for the use of digital devices in public schools*, resulting in these guidelines: www.louisianabelieves.com/docs/default-source/healthy-communities/digital-devices-guidelines-(hb548).pdf?sfvrsn=18106318_2
- **Maryland** introduced House Bill 866: Primary and Secondary Education - Health and Safety Guidelines and Procedures - Digital Devices: http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&stab=01&id=hb0866&tab=subject3&ys=2017RS

- **Massachusetts** has introduced bills to address wireless radiation and public exposure, including schools: sites.google.com/site/understandingemfs/massachusetts-emf-bills-2025-26?authuser=0
- See also **Bills in Other States**: sites.google.com/site/understandingemfs/bills-in-other-states?authuser=0
- This document can help to quickly open the wi-fi health hazard conversation with school, town, state and federal leaders: **EMF Points of Confusion vs. Fact** www.ma4safetech.org/s/EMF-Points-of-Confusion-vs-Fact-Child-031825.pdf
- The **Netherlands and Finland are banning tech from schools**, see: www.theguardian.com/world/2023/jul/04/mobile-phones-other-devices-to-be-banned-from-dutch-classrooms and www.bbc.com/news/world-europe-66107027

**Quick On-Line Training**

- The non-profit **Safer Screentime** has distilled the facts into an easy to learn on-line course that only takes @ an hour to understand the basics of both excessive screentime and wireless radiation. You will learn the science, risks, what other countries are doing to protect their children, and medically recommended best practices for safer technology.

  Please consider taking the following course and ask your loved ones and colleagues to do the same as a way to level-set with the facts. It will take the burden off of you to have to convince them this issue exists; then you can start the conversation with your schools on how to transition to safe technology. A printable safety tip sheet is available at the end with handy reminders, along with a certificate of completion for compliance tracking, and a list of credible references from each lesson. There is a small fee to help keep this non-profit afloat. Bulk rates are available to train schools and workplaces:

  **Safer Screentime Course** (@ $15) : www.saferscreentime.org/courses/safer-screen-time-e-learning-course/
- The Massachusetts Breast Cancer Coalition has developed **curriculum** modules for elementary, middle and high school teachers and students: mbcc.org/lets-talk-prevention-actions-you-can-take-student-modules/

- In accordance with HB548 Requires the state Department of Education to develop and distribute health and safety guidelines relative to best practices for the use of digital devices in public schools, the **Louisiana Department of Education has implemented Digital Device Guidance**: www.louisianabelieves.com/docs/default-source/healthy-communities/digital-devices-guidelines-(hb548).pdf?sfvrsn=18106318_2

A**dditional Resources**

- This 18 minute 2012 video from Australia provides an **easy to understand overview** of the issues surrounding wi-fi in schools, and how others around the world are responding: http://www.youtube.com/watch?v=kmcAXZ-o1K4
- Please note, the United States' current FCC standards for EMFs are very similar to Australia's outdated standards and are currently under formal review. However, in the cases of smoking, asbestos and lead, it took many years for the our government to change our public health standards so we may not see change come from the top anytime soon. In the meantime, manufacturers will continue to sell us harmful products so it is up to concerned citizens to protect themselves and their loved ones.
- This 24-minute video from Canada's Dr. Magda Havas also provides an **in-depth overview** of wi-fi in schools. It highlights the scientific evidence and offers alternative solutions: https://www.youtube.com/watch?v=6v75sKAUFdc
- **E-Rate Program Influence**: The National Association for Children and Safe Technology offers a document to explain how the FCC has implemented technology in our schools and the corruption that has come with it: http://www.nacst.org/education-reform.html
- This presentation by **Mikko Ahonen, Ph.D., Sweden/Finland**, and Ph.D. candidate Tarmo Koppel, discusses issues and solutions to protect children in schools in the face of government programs promoting wireless technology: http://www.slideshare.net/MAhonen/radiofrequency-radiation-and-cchildrens-health-sustainability-challenges-for-e-ggovernment-sweg-2017

**Technology Can Hamper Learning**

- Another issue is that technology was brought into the classroom under the industry's promise that it will enhance learning. Studies are now showing otherwise:

- This study from the **Massachusetts Institute of Technology (MIT)** indicates student performance declined with technology in the classroom: https://seii.mit.edu/research/study/the-impact-of-computer-usage-on-academic-performance-evidence-from-a-randomized-trial-at-the-united-states-military-academy/
- Princeton and UCLA researchers indicate laptop use results in **shallower processing** in, "The Pen is Mightier than the Keyboard: Advantages of Longhand Over Laptop Note Taking": http://www.sciencedirect.com/science/article/pii/S0360131512002254
- Scientific America also concludes, "**Students are Better Off without a Laptop in the Classroom**" because it is too distracting to the students, and those around them: https://www.scientificamerican.com/article/students-are-better-off-without-a-laptop-in-the-classroom/

**Privacy Issues**

- This New York Times article discusses, "**How Google Took Over the Classroom**": https://mobile.nytimes.com/2017/05/13/technology/google-education-chromebooks-schools.html?emc=edit_tu_20170908&nl=bits&nlid=68490634&te=1&_r=0&referer=
- Children's Health Defense reports the technology industry is offering free software programs in order to **harvest student data and sell it for a profit**, among other privacy issues: https://childrenshealthdefense.org/defender/big-tech-collects-profits-kids-data/?utm_source=salsa&eType=EmailBlastContent&eId=3e13b341-72a3-41ce-b4eb-34869d6d1af6

**Silicon Valley Executives Ban Technology from Their Children**

Meanwhile, the New York Times reports Silicon Valley executives are sending their children to schools with no technology and having their nannies sign contracts that there will be no screens around their children:

- The Digital Gap Between Rich and Poor Kids Is Not What We Expected: America's public schools are still promoting devices with screens — even offering digital-only preschools. **The rich are banning screens from class altogether**. https://www.nytimes.com/2018/10/26/style/digital-divide-screens-schools.html?action=click&module=RelatedLinks&pgtype=Article

- **A Dark Consensus About Screens and Kids Begins to Emerge in Silicon Valley**: "I am convinced the devil lives in our phones." https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnellie-bowles&version=latest
- Silicon Valley Nannies Are Phone Police for Kids: Child care contracts now demand that **nannies hide phones, tablets, computers and TVs from their charges.** https://www.nytimes.com/2018/10/26/style/silicon-valley-nannies.html

**Students and Staff Suffering**

- When students returned to classrooms after the COVID-19 pandemic three districts in Boston reported **students beating other students with school-issued Chromebooks**: www.wcvb.com/article/mother-suing-boston-public-schools-after-she-says-daughter-beaten-by-bully-with-chromebook/40039355
- Rodney Palmer - Safety Code 6 - Presentation to the Royal Society of Canada: In this November 2, 2013 video, an experienced journalist presents concerns over an **illness cluster** with children in Ontario schools, leaving two children dead and two more with heart devices, among other effects: http://www.youtube.com/watch?v=bsPBUuwCfaI
- Students and staff at a Texas junior high school suffered a "**mystery illness**" in 2017 with dizziness, headaches and nausea, all symptoms linked to microwave sickness: https://www.nbcdfw.com/news/health/AISD-Jr-High-Plagued-by-Mystery-Illnesses-Reopens-with-Upgrades-and-Renovations-441326723.html
- Twenty-six students and one adult at a Catholic school in Florida were hospitalized in 2018 after suffering **siezures, dizziness, nausea, fainting and nosebleeds**: https://www.sun-sentinel.com/local/broward/fort-lauderdale/fl-ne-cardinal-gibbons-substance-exposure-20181119-story.html
- In 2015, Jenny Fry, a teen in the U.K. committed **suicide** and her parents believe it was because of wireless radiation: http://news.yahoo.com/teen-allergic-to-wifi-commits-suicide-parents-say-223912154.html

- ... and in her Mother's own words: http://www.odwyerpr.com/story/public/6832/2016-05-04/mother-wi-fi-caused-suicide-victim-tells-tragic-story.html
- In 2015, a family with a son diagnosed with electrohypersensitivity (EHS) filed a lawsuit in the U.S. District Court seeking protection under the Americans with Disabilities Act from The **Fay School in Southborough, Massachusetts** (law firm Markham & Read): www.networkworld.com/article/2975945/mobile-wireless/massachusetts-boarding-school-fay-southborough-sued-over-wi-fi-sickness.html
- For the first time in American courts, non-thermal effects are recognized: https://www.leagle.com/decision/infdco20171006q74

**Educators Taking Action**

- The **Buxton School** in Massachusetts is banning the use of smartphones by students and staff:
  buxtonschool.org/buxton-featured-in-the-boston-globe/
  Buxton Technology Philosophy: buxtonschool.org/technology-philosophy/
- A teacher became ill from wireless radiation and sued when accommodations were offered but not provided. JML Law won the Appeal in **'Unprecedented' Disability Case Against LAUSD for Failure to Accommodate Teacher With Electromagnetic Hypersensitivity**: Brown v. LAUSD establishes that symptoms of 'electromagnetic hypersensitivity' a.k.a. 'Microwave Sickness' could be deemed a 'physical disability' under the FEHA:
  https://www.accesswire.com/viewarticle.aspx?id=637661&token=hzivngfkuma2h2xz6rhu
- Australia's Sydney Morning Herald reports, 'Major distraction': **school dumps iPads, returns to paper textbooks**: https://www.smh.com.au/education/major-distraction-school-dumps-ipads-returns-to-paper-textbooks-20190329-p5191r.html
- California's **Palo Alto school district** has begun to reduce wireless radiation exposures by reducing energy consumption and turning off obsolete systems that were found to be still transmitting radiofrequency signals:
  https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo2ZjdiY2RhYjcwNWRlMDMw

- The **United States Collaborative for High Performance Schools** indicates, "...it is important in school environments with children to apply the precautionary principle 'as low as reasonably achievable (ALARA)' by providing low-EMF classrooms, specifying low-EMF IT equipment and wired Internet access network technology, and establishing low-EMF user practices." Specific criteria for schools to adhere to are provided: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyMjhmYmI2NzJlZTQzNjc5
- The **New Jersey Education Association** published a 2016 article that advises, "Minimize Health Risk From Electronic Devices": http://www.njea.org/issues-and-political-action/health-and-safety/reporter-articles
- **Teachers unions** are recognizing the risks of wi-fi in their work environment and are seeking protection: https://www.nysut.org/resources/special-resources-sites/workplace-health-and-safety/webinars http://www.parentsforsafetechnology.org/teacher-unions-parent-teacher-organizations.html https://www.youtube.com/watch?v=i2dcZefK0Mc https://ehtrust.org/san-francisco-unified-school-district-teacher-union-passes-resolution-on-reducing-exposure-to-radiofrequency-radiation/ https://www.magdahavas.com/wp-content/uploads/2012/05/WiFipositionpaper2_OECTA.pdf
- See also the World Response page to see what countries around the world are doing to protect their citizens.

**Parents Taking Action**

- Parents, a building biologist and school administrators worked together to sheild Tucson's **Desert Sage High School** from cell tower radiation: ehtrust.org/a-public-high-school-shielding-classrooms-from-cell-tower-radiation/
- A parent interested in enrolling her children in the City of Lakes **Waldorf School** in Minneapolis educated the school on the hazards of wi-fi. After investigating, the school removed the wi-fi system as a precautionary measure to protect the students and staff:

https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo0ODFhY2UwNDcxN2NhMzA4

- **Ashland Public Schools** in Massachusetts, US, is the first to begin putting precautionary measures in place with Best Practices for Mobile Devices: alpaca-chinchilla-x6xf.squarespace.com/s/Ashland-Best-Practices.JPG

- **Los Angeles Unified School District** has lowered its radiation exposure to 10,000 lower than the FCC limit, however, science indicates this is still not a biologically safe level and gives a false sense of security: http://www.lausd-oehs.org/docs/Misc/Radiofrequency_Safety_Fact_Sheet_021113a.pdf

- Scientists from around the world submitted an **International Appeal to the World Health Organization and United Nations** in 2015 imploring them to protect especially our children and pregnant women, but to date, nothing has been done. The documentary, "Microwaves, Science and Lies," shows evidence that even the WHO may be influenced by manufacturers' profit agendas. www.capuseen.com/films/2858-microwaves-science-and-lies

- Parents around the world are becoming educated and working with their school boards to remove and/or limit wi-fi exposure. Unfortunately, most schools boards and technology directors only know what the FCC tells them, which is that there is no evidence of biological harm at the non-thermal level. Science has long since proven this is not true. Please see the Science page for details. sites.google.com/site/understandingemfs/the-science?authuser=0

- There is great potential harm at the non-thermal, non-ionizing level, but our FCC guidelines remain in place from 1996 and that is what those who are resistant to change will defer to. If you read the guidelines, you will see engineers, not biologists, set them. Among them were members of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). In March 2016, the IEEE acknowledged biological effects in the IEEE Power Electronics Magazine article, "Some Effects of Weak Magnetic Fields on Biological Systems: RF fields can change radical concentrations and cancer cell growth rates." ieeexplore.ieee.org/document/7425396

- Until a higher authority tells our schools to remove the wi-fi and use hard-wired connections, most school boards may not feel empowered enough to make the change. Ultimately, technology should not be rolled out until it is proven biologically safe but that did not happen with wireless and cellular products. Harvard University's Captured Agency report explains how the telecommunications industry rolled out products without proper safety testing. www.ethics.harvard.edu/publications/captured-agency-how-federal-communications-commission-dominated
- So, until actual safe technology can be brought to market, it is up to the parents to become educated, and then help educate our schools to protect our children and staff members.

**Students Taking Action**

- Two **eleventh-grade students in Canada** have started an organization to educate their schools and peers about environmental issues and technology safety. They are collaborating with the national organization, Canadians for Safe Technology (C4ST) to raise awareness and present solutions: https://www.youtube.com/watch?v=jSvqchS9lYo

**Resources**

The following links provide additional insights to help guide us. Please don't hesitate to reach out to any of these contacts, we are all eager to help you solve this problem in your community:

- Safe Living Technologies, Inc., provides a three-minute video to show **Microwave Radiation Exposure Produced by an iPad**: https://www.youtube.com/watch?v=XLCi4UH6eKo
- A group of parents in Petaluma, California has developed a two-page document that details a **solution to hard-wire iPads in the classroom**, see the bottom of page two for the components needed: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoxMjEzNGRmZWY1ZjUwZTk
- Environmental Health Trust reports that **Ashland Public Schools** in Massachusetts was the first public school district in the U.S. to address wi-fi in schools, in 2014:

http://ehtrust.org/first-us-public-school-district-limits-wi-fi-radiation-exposure-to-students-and-staff/

- The following 27-minute WCCA-TV cable program gives an overview of the **journey to bring about Ashland's Best Practices for Mobile Devices** (another guest speaks briefly about a utility "smart" meter program piloted in Worcester, MA): http://www.wccatv.com/video/soapbox/SOAPBOX1052
- We also received a local grant to purchase an **Acoustimeter** to put on loan through the Ashland Public Library so residents can measure and remediate wi-fi radiation in their spaces. WACA-TV helped to produce a 23-minute public service video to demonstrate how to use it in one's home, and offers suggestions to lower exposure: https://vimeo.com/159873631
- The **Boston Parents Paper** chose as their 2015 back to school cover story, "Is Wi-Fi in Schools Safe? A Look at Potential Dangers": bostonparentspaper.com/is-wi-fi-in-schools-safe/
- The **California Medical Association adopted Resolution 107-14** to begin taking action with wireless technologies. Dr. Cindy Russell published the following article which is a good document for parents to use with other parents and school administrators to give them an overview of this issue. It is formatted well to print out and give a copy in meetings: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYzc0N2YxMTQ2NTY4OWZh
- Safe Tech for Schools Maryland reported on April 6, 2016, **"New York PTA Calls For Wi-Fi To Be Turned Off**: Major Wi-fi Controvery as School District is Served With Legal Liability Notice:" *http://safetechforschoolsmaryland.blogspot.com/2016/04/new-york-pta-calls-for-wi-fi-to-be.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+SafeTechForSchoolsMaryland+%28Safe+Tech+for+Schools+Maryland%29*
- The following article includes a letter from a **Canadian teacher** who had to take early retirement because she became electrohypersensitive (EHS) from her school's wi-fi:

http://www.odwyerpr.com/story/public/6667/2016-04-07/canadian-teacher-forced-out-by-wi-fi-goes-warpath.html

- **Portland Public Schools** Expert Testimony by **Dr. Martin Pall**, Professor Emeretus of Biochemistry and Basic Medical Sciences, and **Merry Callahan**, health advocate, present updated information on the health impacts from EMF radiation: http://www.youtube.com/watch?v=HCAyPMVuJHY
- The following is a letter from the **American Academy of Environmental Medicine** to the Los Angeles Unified School District regarding the proposal to install Wi-FI in Los Angeles schools: http://www.emfacts.com/2013/03/aaem-on-wifi-in-schools/
- Wi-Fi Free Schools Australia has started **a country map indicating where parents can find a wi-fi-free school** for their children: https://www.google.com/maps/d/u/0/viewer?mid=zOkxcDhxrUz8.k-IiistVXZiU
- **Magda Havas, PhD** is Associate Professor Emeritus of Environmental & Resource Studies at Trent University where she taught and researched the biological effects of environmental contaminants. In the following two videos, she outlines the issues with wi-fi in schools.

  Dr. Magda Havas WiFi Schools May 9, 2013 Part 1: http://www.youtube.com/watch?v=rddvfPucn3Y

  Dr. Magda Havas WiFi Schools May 9, 2013 Part 2: http://www.youtube.com/watch?v=hDEF2MDPu60
- **Dr. Joseph Mercola**, Osteopathic Physician, released this article September 21, 2013: http://articles.mercola.com/sites/articles/archive/2013/09/21/cell-phone-wifi-radiation.aspx
- This site is dedicated to understanding and remediating Wi-Fi in Schools, and has some **good graphics to help visualize the issues**: http://wifiinschools.com/
- For **facebook** users, **Campaign for Radiation Free Schools** seeks to educate parents and schools on the hazards of microwave radiation from cell phone towers and antennas on or near school property, and from wireless networks within school learning

environments. Regular updates are posted to keep abreast of current wi-fi in school activity around the world: https://www.facebook.com/groups/110896245588878/

- Using **a crude AM radio**, this video allows you to hear the amount of radiation emitted from a hard-wired PC vs. a wireless laptop and iPad: http://www.youtube.com/watch?v=P0B40whyzcA&feature=youtu.be
- Parents for Safe Technology share radiation **measurements taken in several U.S. schools**: http://www.parentsforsafetechnology.org/wi-fi-radiation-levels-at-us-schools22222.html
- This **NIH PubMed database study** concludes, "Parents, teachers, and school boards have the responsibility to protect children from unnecessary exposure." http://www.ncbi.nlm.nih.gov/pubmed/26372109
- The last line in this abstract from the NIH's PubMed database, on **harm from laptops**, is, "Laptop is paradoxically an improper site for the use of a LTC (laptop computer), which consequently should be renamed to not induce customers towards an improper use." So, that is what industry subsequently did. They renamed "laptops" to "tablets" but didn't inform the public that they are unsafe to use in the lap, and should be used on a table instead (and, might I add, best used in airplane mode and/or hard-wired). http://www.ncbi.nlm.nih.gov/pubmed/22315933
- Concerned parents in the United States can also send notarized **"No-Consent to WiFi " letter**s to their school boards. This an important step towards accountability. Please see examples below written by concerned parents. Citizensforsafetechnology.org offers a **Statement of Accountability** parents can use: http://wifiinschools.com/uploads/3/4/3/4/34340185/statement_of_accountability.pdf
- Jeromy Johnson of emfanalysis.com adds **a form letter from concerned students**: https://www.emfanalysis.com/wp-content/uploads/2014/09/non-consent_form_and_sample_letter_to_school1.pdf

## Question 11 b: Sensitive Populations, pregnant women (and other fertility issues)

EMFs hit DNA in reproductive tissues especially hard as there is no bone protective barrier between our wi-fi devices and a female's ovum or a male's testicles:

- **Sperm count** and **motility** are drastically reduced.
- Wi-fi is impacting not only those who wish to conceive now, but also **future generations**. DNA in a female's ovum is altered. The **damaged DNA** from the parent is passed along to the fetus, affecting future familial lines.
- Did you know every female is born with all of the reproductive eggs she will ever have? Every little girl using a cell phone or wireless device now is at risk of having fertility issues later in life because of the radiation she is exposing her **ovum** to today.
- EMF radiation **damages the reproductive system in the fetus** growing inside the pregnant mother's womb.
- **Miscarriage** risk increases with wireless radiation exposure.

**The Science**

- Thank you to the **Environmental Working Group (EWG)** for their public health fact sheet, *How exposure to cell phones and other technology affects reproductive health*: www.ewg.org/research/how-exposure-cell-phones-and-other-technology-affects-reproductive-health
- The 2025 paper, *Impairment of Oogenesis and Folliculogenesis in Neonatal Rats after Maternal Exposure to Mobile Phones,* reports, "... the gestational stages and duration of exposure to cell phone radiation affect the **risk of ovarian harm":** link.springer.com/article/10.1007/s43032-025-01880-0
- Dr. Martin Pall's 2018 paper, "**5G: Great risk for EU, U.S. and International Health! Compelling Evidence for *Eight Distinct Types of Great Harm Caused by Electromagnetic Field (EMF) Exposures and the Mechanism that Causes Them***" indicates much of the damage from wireless radiation is cumulative and some becomes irreversible.

- His paper includes 16 scientific reviews (each referencing multiple individual peer-reviewed published studies) which include a wide variety of changes leading to lowered male fertility, lowered female fertility, increased spontaneous abortion, lowered levels of estrogen, progesterone and testosterone, and lowered libido.

The European Academy of Environmental Medicine provides Dr. Pall's paper here:

https://europaem.eu/attachments/article/131/2018-04_EU-EMF2018-5US.pdf

- See the 2018 paper, "**Radiations and male fertility**":
- https://rbej.biomedcentral.com/articles/10.1186/s12958-018-0431-1
- See also abstracts for **eight review papers** and links to 40+ studies as collected by Dr. Joel Moskowitz:
- https://www.saferemr.com/2015/09/effect-of-mobile-phones-on-sperm.html
- These studies address **male fertility issues and wi-fi**:
- http://www.ncbi.nlm.nih.gov/pubmed/22112647
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3778601/
- https://www.ncbi.nlm.nih.gov/pubmed/28967061
- A 2017 study, "Temporal trends in sperm count: a systematic review and meta-regression analysis" shows **sperm counts dropping dramatically:**
- https://academic.oup.com/humupd/article/doi/10.1093/humupd/dmx022/4035689/Temporal-trends-in-sperm-count-a-systematic-review
- **Kaiser Permanente** scientists completed a study that concluded non-ionizing radiation more than doubles the risk of **miscarriage**:
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5727515/
- The EPA provides an understanding of how **DNA mutations** from radiation affect what we pass on to our offspring genetically:
- http://www.epa.gov/radiation/understand/health_effects.html

- The following link provides an audio track from a 2013 **conference led by leading U.S. experts** in , “Cell Phones & WiFi – Are Children, Fetuses and Fertility at Risk?”

http://electromagnetichealth.org/electromagnetic-health-blog/summary-and-audio/

- **Barrie Trower** WiFi Report – Humanity At The Brink, September 2013, shows how wi-fi exposure now will affect **fertility in the future**:

http://www.geoengineeringwatch.org/barrie-trower-wifi-report-humanity-at-the-brink/

- A quick search of the **National Institutes for Health (NIH) PubMed database** on "emf fertility" returns a multitude of other studies from around the world:
- http://www.ncbi.nlm.nih.gov/m/pubmed/?term=emf+fertility
- The media is beginning to discuss the fertility issue. **Newsweek** published a 2018 report, "Male Infertility Crisis in U.S. Has Experts Baffled". The *Environmental Castration* section states, "Some scientists have theorized that electromagnetic fields from devices like cell phones could degrade semen quality, leading to weak and immobile sperm."
- https://www.newsweek.com/2017/09/22/male-infertility-crisis-experts-663074.html

Massachusetts for safe TECHNOLOGY

## Question 11 f: Existing Evidence, individuals with pre-existing medical conditions

# EMR Syndrome

See the **EMR Syndrome website** for information and support for the millions who suffer acute health effects linked to man-made electromagnetic radiation (EMR) from cell towers, cell phones, Wi-Fi, smart meters, antennas, smart products, LED lighting, and other sources: www.emrsyndrome.org/

While adverse effects of long-term exposure to wi-fi radiation, like cancer, infertility and DNA damage may not surface in some for years, there are many who suffer immediate effects. Health care providers are now learning to diagnose and treat environmentally induced electromagnetic sensitivity, also known as microwave sickness, electromagnetic hypersensitivity and now the universally recognized term EMR Syndrome (Electromagnetic Radiation Syndrome/EMR-S).

**Symptoms manifest neurologically and immunologically** when exposed to:

- Radiofrequency radiation
- Electric and magnetic fields
- One or more of the types of electromagnetic radiation found in the modern environment
- This nine-minute animiated film chronicles one woman's experience with EMS: vimeo.com/810958040.
- See eight-minute R2ID3: Root Cause Protocol for Treating EHS from **Magda Havas, PhD**: www.youtube.com/watch?v=teMyNiR6684&t; see also her 2025 paper, Precursors Need to be Considered to Promote Recovery from Idiopathic Environmental Intolerance–Attributed to Electromagnetic Fields: esmed.org/MRA/mra/article/view/6253

**The Science**

Those who suffer from EHS can feel the radiation hitting various biological systems when they encounter cell towers, routers, access points, cordless phones, smart meters, laptops, iPads,

tablets, baby monitors, fluorescent lights or any other devices pulsing signal. Patients experience a myriad of immediate or latent symptoms that may include pain or tightening in the chest, altered heartbeat, tinnitus in the ears, headaches, nosebleeds, insomnia, fatigue, diminished concentration, cognitive impairment, poor memory, behavioral issues, anxiety, depression, anger, suicidal ideation and more. Symptoms can disappear or diminish over time when exposure to electromagnetic fields (EMFs) is eliminated.

See the following studies:

- **Mary Redmayne and Siobhan Reddel**: *Redefining electrosensitivity: A new literature-supported model*, Electromagnetic Biology and Medicine. 25 Jan 2021.
- *The Critical Importance of Molecular Biomarkers and Imaging in the Study of Electrohypersensitivity. A Scientific Consensus International Report* is written by 35 EMF experts for the acknowledgement of EHS as a distinct neuropathological disorder and for its inclusion in the WHO International Classification of Diseases. *Int. J. Mol. Sci.* **2021**, *22*(14), 7321.
- **Dominique Belpomme** and **Philippe Irigaray**: *Electrohypersensitivity as a Newly Identified and Characterized Neurologic Pathological Disorder: How to Diagnose, Treat, and Prevent It*, Int J Mol Sci. 2020 Mar; 21(6): 1915. It estimates **50% of the population is already suffering from EHS**.
- **Yael Stein** and **Iris G Udasin**: Electromagnetic hypersensitivity (EHS, microwave syndrome) - Review of mechanisms, Environmental Research. 2020 Jul;186:109445. doi: 10.1016/j.envres.**2020**.109445. Epub 2020 Mar 30.
- **Rea WJ**, Pan Y, Fenyves EJ, Sujisawa I, Suyama H, Samadi N, Ross GH: Electromagnetic Field Sensitivity: Journal of Bioelectricity: Vol 10, No 1-2 is a provocation study where those with EHS experienced biological effects when exposed to EMFs but not to sham exposures. J Bioelectricity **1991**; 10 (1-2): 241-256.
- **McCarty DE** *et al*, (December 2011) *Electromagnetic hypersensitivity: evidence for a novel neurological syndrome*, Int J Neurosci. 2011 Dec;121(12):670-6. Epub 2011 Sep 5 [View Author's abstract conclusions] [View on Pubmed]

- **Nishimura T** *et al*, (March 2011) *A 1-uT extremely low-frequency electromagnetic field vs. sham control for mild-to-moderate hypertension: a double-blind, randomized study*, Hypertens Res. 2011 Mar;34(3):372-7. Epub 2011 Jan 20 [View Author's abstract conclusions] [View on Pubmed]
- **Martin Pall**: *Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression*, J Chem Neuroanat. 2016 Sep;75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001. Epub 2015 Aug 21.
- See other EHS papers at https://www.powerwatch.org.uk/science/studies.asp#es

**Additional Resources**

The following sites provide detailed information on EHS:

- Dr. Olle Johannson and Davida van der Walt have created an **In the Know series** of short (5-minutes or less) videos to explain electromagnetic sensitivities and their complexities: www.youtube.com/playlist?list=PL-LNIDIU7AuBH2xkIFZe68_oxQ-w822Od
- Dr. Cindy Russell, California surgeon, and others launched **Physicians for Safe Technology** to teach the medical community and the public about wireless radiation health risks: https://mdsafetech.org/
- The **Electrosensitive Society** provides support and resources to those with EHS: https://www.electrosensitivesociety.com/
- See also the well-moderated **Electrical Sensitivity Support Group** on facebook: www.facebook.com/groups/emfSensitivity/
- Dr. Erica Mallery-Blythe provides **a one-hour lecture** that will help those new to this topic: https://www.youtube.com/watch?v=sNFdZVeXw7M

She also summarizes the issue well here:
http://www.camexpo.co.uk/electromagnetic-radiation-modern-health-hazard/

- Andre Fauteux wrote an **extensive article on the history of EHS** which explains why this disease and MCS (Multiple Chemical Sensitivities) have not yet been recognized in the mainstream:

https://maisonsaine.ca/english/electrohypersensitivity-conference-debunks-nocebo-effect-theory.html

- WEEP, a Canadian initiative for safe wireless, electric and electromagnetic policy, provides an understanding of electromagnetic hypersensitivity and offers documents for ***Talking to Your Doctor*** **and** ***Living with EHS; A Survival Guide***.
- The **Building Biology Institute** certifies Electromagnetic Radiation Specialists who can be hired to measure and remediate EMF exposures in person and/or by remote consultation:
  buildingbiologyinstitute.org/find-an-expert/certified-consultants/electromagnetic-radiation-specialists/
  See also their five-part series on **Reducing Occupant Exposure to EMFs in Residential Construction**:
  www.youtube.com/playlist?list=PLtOuBSUfZX7oB_Rnpk-eQskUA9V7GaSjH
  They offer helpful **free fact sheets** as well:
  buildingbiologyinstitute.org/free-fact-sheets/
- GEOVITAL Academy has been dealing with chronic health issues in its patients by **creating healthier homes**, and radiation protection plays a big part. They need more consultants but for information, solutions and their existing consultants, go to www.en.geovital.com and you can reach out to Patrick van der Burght. They have an informative range of videos about shielding paint on a playlist at YouTube:
  https://www.youtube.com/playlist?list=PLWQWmoVZoj1VtabizfWKzCYHdEpjGV6oK
- Jeromy Johnson is a safe technology advocate who became electrohypersensitive. He offers **10 steps to healing EHS**: http://www.emfanalysis.com/ehs-guide/
- Dr. Magda Havas, associate professor of Environmental and Resource Studies at Trent University, in the article "The Disease of 'Modern' Civilization... Neurasthenia," provides **a history of EHS** as experienced in other generations by telegraph line installers and telephone switch board operators, followed by radar operators:
  http://www.magdahavas.com/the-disease-of-modern-civilization-neurasthenia/
- The **Books** page on this website offers suggestions for in-depth reading.

- Israeli and New York lawyer Dafna Tachover has developed electrohypersensitivity from wireless technology and established the **We Are the Evidence** website. She **encourages EHS sufferers to share their story** on this website so she can provide the evidence to legislators, and so EHS sufferers can find support: https://wearetheevidence.org/
- Australian Steve Weller provides ELECTROMAGNETIC HYPERSENSITIVITY (EHS) **A PERSONAL CASE STUDY**: A briefing on EHS for Health Professionals, Research Scientists, Government Officials and concerned members of the Public: https://electroplague.files.wordpress.com/2014/05/steveweller-a-personal-ehs-case-study-public-2014-april-11.pdf
- Many ask if **shielding or neutralizing products** work. A 2019 study lends insights and recommends exposure reduction instead: https://www.sciencedirect.com/science/article/pii/S0048969719308526?via%3Dihub
- The non-profit Safer Screentime offers a quick **on-line course** that provides exposure reduction strategies; it is advisable to have all adults and adolescents in a home take the course so families can level-set with the science and risks, then have a fact-based conversation about harm reduction: www.saferscreentime.org/courses/safer-screen-time-e-learning-course/
- **Men's Health magazine** featured the cover story, The Quiet House, in 2022 about one man's journey with environmental illnesses including EMS, and what he did to begin recovering and build a safe home: www.menshealth.com/trending-news/a39049886/mystery-illness-lyme-disease-emf-essay/

**Diagnosing and Treating EHS**

- For a quick overview, see the 8-minute video **R2ID3: Root Cause Protocol for Treating EHS** by Dr. Magda Havas, Associate Professor Emeritus of Environmental and Resource Studies at Trent University: www.youtube.com/watch?v=teMyNiR6684
- Health care providers can be trained through the **EMF Medical Conference 2021 (note: the original 24.5 CME/CE conference was held in 2021 but the on-line training remains**

**highly relevant and the courses are now available at no cost)**:
https://emfconference2021.com/

- In May 2016, 15 leaders in the field contributed to the 35-page publication ***EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses***. This EMF Guideline gives an overview of current knowledge regarding EMF-related health risks and provides concepts for the diagnosis and treatment and accessibility measures of EHS to improve and restore individual health outcomes as well as for the development of strategies for prevention: https://www.degruyter.com/document/doi/10.1515/reveh-2016-0011/pdf

- Physicians for Safe Technology offers *A Clinical Approach to Electrohypersensitivity* including **insurance codes**: https://mdsafetech.org/problems/electro-sensitivity/a-clinical-approach-to-ehs/
  World Health Organization (WHO) International Classification of Diseases' **Code T-66 for a diagnosis of "Radiation Sickness"** and **Code W90 which recognizes that "Exposure to Other Nonionizing Radiation" can cause injury**.

- Dr. Mallery-Blythe also provides **a written summary for doctors** to learn about and treat EHS:
  Download Electromagnetic Hypersensitivity: A Summary by Dr Erica Mallery-Blythe (PDF)

- The Austrian Medical Association's EMF Working Group (AG-EMF) provides guidelines too for the **diagnosis and treatment of EMF** related health problems and illnesses. Click here for pdf.

- Many who experience electrical sensitivities also suffer from multiple chemical sensitivities (MCS). At the **5th Paris Appeal Congress**, 18th of May, 2015 at the Royal Academy of Medicine, Belgium, experts convened to discuss "**Environmental idiopathic intolerance: what role for EMFs and multiple chemicals?**" They are asking for international codes to classify and treat EHS and MCS: https://www.youtube.com/watch?v=UTFAMlCKUBM

- Jeromy Johnson offers additional suggestions, and lists EHS knowledgeable doctors in th**e U.S. and Europe**: http://www.emfanalysis.com/medical-doctors/

- In **Unplug: How to Survive and Thrive in a Wi-Fi World Gone Wild**, Sam Wieder recounts the personal journey that led him to recognize how the EMFs in his life were draining his energy and the steps he took to reclaim his health.
- **EMF-reduced homes** are being built in Seattle: http://www.capitolhillseattle.com/2015/03/community-post-seattles-first-emf-reduced-homes-debut-in-the-central-district/
- Dave Stetzer of Stetzer Electronics provides **filters to remediate dirty electricity** that can help reduce EHS symptoms: http://www.stetzerelectric.com/
- In Grenoble, France, **a judge ordered the "smart" water meter be replaced** with a non-radiation-emitting meter at the home of a person who is electrosensitive: http://www.lepoint.fr/societe/compteur-d-eau-intelligent-une-electrosensible-obtient-son-retrait-09-12-2016-2089186_23.php
- Note, many users of "**wearables**" experience adverse symptoms. See customer statements on the Fitbit website: https://community.fitbit.com/t5/Charge-2/Headache-and-severe-dizziness-Charge-2/td-p/1648794
- The following paper reviews "**Shielding methods and products** against man-made Electromagnetic Fields: Protection versus risk": https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo1NzljODM5ZTFmODEwNjc4
- Some have found Annie Hopper's **Dynamic Neural Retraining System** to be helpful in reducing or eliminating EHS and other environmental illness symptoms related to a chronic stress response and limbic system impairment: https://retrainingthebrain.com/; the accompanying book is "Wired for Healing"
- As one sufferer of multiple chemical sensitivities and EMS indicated, "The problem is trauma to the brain (chemical, EMF, physical abuse, injury, PTSD, etc.) so you have to teach the brain to act normally again. That is, **rewire the brain**. It's NOT easy, but with determination it can be done!" https://retrainingthebrain.com/research-3/

- Phonak offers **hearing aids** that do not use wireless technology (thank you, Cathy Cooke): www.phonak.com/en-us/hearing-devices/hearing-aids/virto-infinio-nw
- If fashion is not a concern, there are **inexpensive hearing amplifiers** from WuVee that cost less than $60 for a pair and have no RF at all, need no replaceable batteries. For those whose guests use RF hearing aids, perhaps offer these as a temporary while in your home. Not everyone's cup of tea because they are old fashioned and clunky (thank you, Ken Gartner).

**Medical Practitioners**

- The **American Academy of Environmental Medicine** trains practitioners to address environmentally-induced illnesses. You can find practitioners on their website: https://aaemonline.org/
- **Dr. Lisa Nagy** practices in Vineyard Haven, Martha's Vineyard, MA:

*http://lisanagy.com/index.php*

- **Environmental Health Center** in Dallas, TX, founded by pioneer **Dr. William Rea**, has been treating people for the whole environmental toxic load for many years and has helped thousands: http://www.ehcd.com/
- **Dr. Scott Eberle** does not treat for EHS, but he has recovered from EHS personally. He shares his story and resources below which may be useful to other medical practitioners and EHS sufferers: http://www.petawam.com/doctorscorner.html
- This 15-minute video with **Clint Ober** and three MDs (Drs. **Koniver, Mercola, Sinatra**) explains what **earthing or grounding** is, and how it can help to reverse inflammation that leads to disease: https://vimeo.com/205264910

**Government Accommodations**

- The United States Access Board's IEQ Indoor Environmental Quality Project indicates electromagnetic sensitivities may be considered **disabilities** under the ADA: https://www.access-board.gov/research/building/indoor-environmental-quality/
- The Access Board recommends the following **accommodations**: https://www.access-board.gov/research/building/indoor-environmental-quality/recommendations-for-accomodations/
- Job Accommodation Network (JAN) is one of several services provided by the U.S. Department of Labor's Office of Disability Employment Policy (ODEP). JAN offers the following **Accommodation Ideas for Electromagnetic Sensitivity**: https://askjan.org/disabilities/Electrical-Sensitivity.cfm?csSearch=2894814_1
- In 2022, Elizabeth Kelley, Dr. Magda Havas, Sheena Symington and Susan Malloy were invited to present to the **National Council on Disability**. See video, transcript and slides: www.electrosensitivesociety.com/national-council-on-disability-ncd-ehs-mcs-presentation-may-12-2022/
- In 2023 the National Council on Disabilities included wireless exposures in the **Framework to End Health Disparities of People with Disabilities**. See item six on page 10: ncd.gov/publications/2023/Framework-to-End-Health-Disparities-People-with-Disabilities
- The Center for Electrosmog Prevention offers guidelines for **How to File an ADA Accommodations Request for Electrosensitivity to Avoid Small Cells and Wifi**: http://www.electrosmogprevention.org/ada-accommodations-for-rf-exposures/ada-for-es-to-avoid-small-cells-and-wifi/
- The following paper was presented by the U.S. Department of Labor, OSHA, at the annual meeting of the American Academy of Environmental Medicine, November 8, 1998, "**NUTRIENTS IN THE TREATMENT OF ELECTROMAGNETIC SENSITIVITY, AN EMERGING DISEASE**": http://www.francisholisticmedicalcenter.com/images/Electromagnetic_Sensitivity.pdf

**Housing**

- The following sites are for **wireless-free communities** and people looking for housing: *https://www.facebook.com/groups/571481532909496/permalink/1378983178825990/*

*http://www.radiationrefuge.com/home*

- **Low-EMF seapods** are being designed as a housing alternative: oceanbuilders.com/#emf

**Doubts**

- Electrohypersensitivity is a relatively new term, so there will be those who doubt it exists until it comes mainstream. The following paper on the **NIH PubMed database** sheds some light: http://www.ncbi.nlm.nih.gov/pubmed/22153604
- The **nocebo effect** theory is incorrect: the vast majority of people with EHS ignored the health risks of EMFs. See: https://www.ncbi.nlm.nih.gov/pubmed/26369906

  "Overall, symptoms appear before subjects start questioning effects of EMF on their health, which is not consistent with the hypothesis that IEI-EMF originates from nocebo responses to perceived EMF exposure. However, such responses might occur at the sixth stage of the process, potentially reinforcing the attribution. It remains possible that some cases of IEI-EMF originate from other psychological mechanisms."
- Below is one of the **earlier studies** done on Electromagnetic Field Sensitivity by six M.Ds/Ph.D.s lead by Dr. William Rea:

http://www.aehf.com/articles/em_sensitive.html

- Two studies prove that **EHS is a medical, not a psychological condition**:
  - 2014 DeLuca Study identified statistically significant genetic and metabolic differences in EHS subjects compared to non-EHS subjects, as well as reduced levels of glutathione and impaired detoxification ability. Risk of EHS development was increased 9.7 times in individuals who are missing two genes GSTM1 and GSTT1, which are glutathione S-transferase (GST) enzymes that detoxify by

conjugation with glutathione:
https://www.hindawi.com/journals/mi/2014/924184/

- 2015 Belpomme Study identified biomarkers in many of those with EHS that are out of normal range:
http://www.ehs-mcs.org/fichiers/1454070991_Reliable_biomarkers.pdf
- Israeli and New York lawyer **Dafna Tachover** has developed electrohypersensitivity from wireless technology. She founded the website We Are the Evidence and in September 2016 testified before the **FCC's Disability Advisory Committee** (5 minutes):
https://www.youtube.com/watch?v=_qg0H63GLkU&feature=youtu.be

**Suicide**

- This article from China indicates **Taiwan removed cell towers in 2007, citing suicide as one possible outcome of EHS**:
http://www.chinapost.com.tw/taiwan/2007/11/06/129715/1500-cellphone.htm
- In 2015, **Jenny Fry**, a teen in the U.K. committed suicide and her parents believe it was because of EHS:
http://news.yahoo.com/teen-allergic-to-wifi-commits-suicide-parents-say-223912154.html
... and in her **Mother's own words**:
http://www.odwyerpr.com/story/public/6832/2016-05-04/mother-wi-fi-caused-suicide-victim-tells-tragic-story.html
- In 2014, **a priest committed suicide** after suffering from EHS for 10 years:
http://ehsfighback.blogspot.com/2014/02/when-priests-commit-suicide.html

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## Question 13. a. Effects of technologies

# Cell Towers

**Solutions**

- The **New Hampshire** legislature is the first in the U.S. to investigate harm from cell towers, 5G and other EMF emissions. They issued a groundbreaking report documenting the harm and recommend 15 measures to transition away from toxic wireless exposures to superior connections via fiber-optics to and through the premises. Dr. Kent Chamberlin explains why they recommend a **science-based minimum 500 meter/1,640 foot setback** in this 20-minute video. His sides are included in the video description:

  www.youtube.com/watch?v=DWK74ie7krc&t=220s

- See **Americans for Responsible Technology** (ART) for sample zoning code and other resources to bring to your town's planning, zoning, city council, health and other boards to ensure your local bylaws are as protective as they can be:

**www.americansforresponsibletech.org/tool-kit**

- To see if there are others in your area working toward responsible technology installations, see ART's **Join a Group** page: www.americansforresponsibletech.org/join-a-group
- If there are not yet others listed in your area, see ART's **Start a Group** page: www.americansforresponsibletech.org/start-a-group
- **Dr. Cindy Russell**, Executive Director of Physicians for Safe Technology, has produced short videos for citizens to share with their local towns, schools, legislators and loved ones to explain wireless risks. She has a 3-minute clip on cell towers:

www.youtube.com/@MDSafeTech

**Legal Liability**

The following paper likens the wireless industry to others that have caused unintended human harm (e.g. tobacco). American companies are therefore ill advised to simply follow "regulatory compliance" on this front, as there appears to be a clear cause for concern in the scientific/medical communities. If causation were to be proven through detailed studies, cellular phone companies would potentially be in position of future legal exposure for causing widespread human health problems and premature death. It is, therefore, in American companies' best interest to act before government and regulation catches up with the science. Deployment of base stations should be kept as efficient as possible to minimize exposure of the public to RFR and should not be located less than 500m (1,640 feet) from the population, and at a height of 50m.

- J.M. Pearce. Limiting liability with positioning to minimize negative health effects of cellular phone towers. Environmental Research. Volume 181, 2020, 108845. https://doi.org/10.1016/j.envres.2019.108845.

**Scientific Studies**

The following studies indicate cell towers are **biologically hazardous**:

- *Greater prevalence of symptoms associated with higher exposures to mobile phone base stations in a hilly, densely populated city in Mizoram,* ***India***; 2025: https://www.tandfonline.com/doi/full/10.1080/15368378.2025.2513900
- **AI modeling** predicts symptoms from living near a cell tower base station: jbpe.sums.ac.ir/article_49803.html
- *Evidence for a health risk by RF on humans living around mobile phone base stations:* ***From radiofrequency sickness to cancer****: www.sciencedirect.com/science/article/abs/pii/S0013935122011781*
- Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission from the

Ramazzini Institute in Italy concludes, "The RI findings on far field exposure to RFR are consistent with and reinforce the results of the NTP study on near field exposure, as both reported an increase in the incidence of **tumors of the brain and heart** in RFR-exposed Sprague-Dawley rats." This study, partially funded by the U. S. government, is the first large-scale study to show clear evidence of cancer risk from cell towers.

- Epidemiological evidence for a health risk from mobile phone base stations finds "**adverse neurobehavioral symptoms or cancer** in populations living **at distances < 500 meters from base stations**." (1,640 feet)
- Association of Exposure to Radio-Frequency Electromagnetic Field Radiation (RF-EMFR) Generated by Mobile Phone Base Stations with Glycated Hemoglobin (HbA1c) and Risk of Type 2 Diabetes Mellitus indicates, "It is concluded that exposure to high RF-EMFR generated by MPBS is associated with **elevated levels of HbA1c**".
- The effect of Base Transceiver Station waves on some immunological and hematological factors in exposed persons identifies **detrimental impacts on the blood and the immune system**.
- Effect of electromagnetic radiations from mobile phone base stations on general health and salivary function indicates, "A majority of the subjects who were residing near the mobile base station complained of **sleep disturbances, headache, dizziness, irritability, concentration difficulties, and hypertension**."
- Exposure to non-ionizing electromagnetic radiation from mobile telephony and the association with psychiatric symptoms finds, "**Exposure to electromagnetic radiation from mobile phone base stations and other electronic devices was associated with psychiatric symptoms**, independently of gender, schooling, and smoking status. The adoption of **precautionary measures** to reduce such exposure is recommended."

- Health effects of **living near mobile phone base transceiver station (BTS) antennae**: a report from Isfahan, Iran concludes, "It is suggested that cellular phone BTS antenna **should not be sited closer than 300 m** to populations to minimize exposure of neighbors." (984 feet)

- Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. Environmental Reviews.18: 369–395 reports, "Many biological effects have been documented at very low intensities comparable to what the population experiences within 200 to 500 ft (~60–150 m) of a cell tower, including ... **genetic, growth, and reproductive; increases in permeability of the blood–brain barrier; behavioral; molecular, cellular, and metabolic; and increases in cancer risk….**" They define low-intensity exposure to radio frequency radiation as having a power density of **less than or equal to 0.001 mW/cm2.**
- Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation concludes, "RF radiation should be regarded as **a human carcinogen causing glioma**."
- See additional Cell Tower Health Effects studies posted by **Joel M. Moskowitz, Ph.D.,** Director, Center for Family and Community Health, School of Public Health, University of California, Berkeley: http://www.saferemr.com/2015/04/cell-tower-health-effects.html
- See also, "**Cell Tower Radiation Affects Wildlife: Dept. of Interior Attacks FCC**": http://www.saferemr.com/2014/03/dept-of-interior-attacks-fcc-regarding.html
- Reported Biological Effects from Radiofrequency Radiation at Low-Intensity Exposure summarizes the scientific studies in the **Biolnitiative Report**.
- See also the page in this repository on 5G and the Internet of Things (IOT).
- See also studies on the **Environmental Health Trust** website: https://ehtrust.org/science/cell-towers-and-cell-antennae/compilation-of-research-studies-on-cell-tower-radiation-and-health/?fbclid=IwAR3zJ7pQF0CB5WmTbrS0lKYjsk_NsNDOBpES36LsHVozucudllc6bIyKz60

**Radiation Experts**

- Ronald Powell, Ph.D., is a **Harvard-trained physicist** who retired from a career as a leading U.S. government scientist. He has written the following paper to help educate the public on The Health Argument Against Cell Phones and Cell Towers.

- In 2000, T-Mobil, the German parent company of U.S. T-Mobile, commissioned a study with EMF experts to assess potential health effects. The ***Mobile Communications and Health*** report concluded there are **many non-thermal biological effects well below public radiation exposure limit levels**. They recommended specific precautionary measures should have been taken, but they were not and the industry continued to market hazardous products: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo3MTE4NThkYmY3NmUzMzc0
- **Joel Moskowitz, Ph.D,** at the University of California, Berkeley, offers these additional resources at his EMR Safety website:

*Cell Tower Health Effects*

*Effects of Wireless Radiation on Birds and Other Wildlife*

*International EMF Scientist Appeal* - *also see https://emfscientist.org/*

*Scientists and Doctors Demand Moratorium on 5G*

*5G Wireless Technology: Is 5G Harmful to Our Health?*

*5G Wireless Technology: Millimeter Wave Health Effects*

**Property Values**

- Studies show when cell towers go in, property values decline: https://ehtrust.org/?s=property+values

**Fire and Disaster Risk**

- Three devastating fires in California have been started either in part or in whole by telecommunications equipment failures: Silverado, Woolsey and Malibu Canyon. Towns need to recognize the risk and codify zoning protections to forbid cell towers and small cells near residences: https://www.aspentimes.com/opinion/guest-commentary-is-5g-a-potential-fire-hazard/
- In 2019 the Association of Public Safety Communications Officials (APCO) International in conjunction with the American National Standards Institute released the **ANSI/APCO**

**Public Safety Grade Site Hardening Requirements** standard to ensure our public safety communications systems withstand man-made and natural disasters. These should be incorporated into communication zoning code in every community: www.apcointl.org/~documents/standard/21061-2019-psg-site-hardening/?layout=default

**Gap in Coverage**

- The FCC no longer accepts propagation maps as sufficient evidence for showing wireless coverage. Rather, they are asking for dropped call data or "hard data" to prove or disprove a gap in coverage. See the FCC Mobility Fund Phase II Coverage Maps Investigation Staff Report: docs.fcc.gov/public/attachments/DOC-361165A1.pdf

**Industry Influence**

- **AntennaSearch.com** enables one to enter an address in the U.S., and see a report showing the big macro cell antenna and cell tower installations within a three-mile radius; in some cases, like Boston, it will return only a one-mile radius because there are so many: http://www.antennasearch.com/
- See also **Ookla 5G Map** for small cell installations in your area worldwide: https://www.speedtest.net/ookla-5g-map
- Despite the independent science showing biological effects, the industry continues to place 3G and 4G antennas in **close proximity to the public.** We see towers in **neighborhoods, on school and community center grounds, playing fields, antennas on water towers and in church steeples.**
- The **3G and 4G bands of electromagnetic radiation spectrum are almost maxed out** so the industry and FCC are planning their next steps.
- The FCC and telecommunications industry is fast-tracking 5G/Internet of Things at the Federal and State levels. They are **aiming to put cell tower antennas in at street level in our neighborhoods** to provide the infrastructure for 5G (fifth-generation wireless technology) and the Internet of things (IoT).

- What's the rush? The **U.S. National Toxicology Program's $30M study** has already reported wireless radiation causes **DNA damage, brain and heart tumors**. The industry is trying to get this toxic 5G infrastructure in place before the public catches on.
- Longtime World Health Organization advisor Anthony B. Miller, M.D., confirmed in 2017 radiofrequency (RF) radiation from any source now fully meets the criteria to be classified as a "**Group 1 carcinogenic to humans" agent:** http://www.sbwire.com/press-releases/cancer-expert-declares-cell-phone-and-wireless-radiation-as-carcinogenic-to-humans-849135.htm
- On June 20, 2016 **FCC Chairman Tom Wheeler indicated the priority with 5G is to be first to market, regardless of public health or safety**. He states, "Unlike some countries, we do not believe we should spend the next couple of years studying what 5G should be, how it should operate, and how to allocate spectrum, based on those assumptions. Like the examples I gave earlier, the future has a way of inventing itself. Turning innovators loose is far preferable to expecting committees and regulators to define the future. We won't wait for the standards to be first developed in the sometimes arduous standards-setting process or in a government-led activity." See his six-page speech below: *https://www.fcc.gov/document/remarks-chairman-wheeler-future-wireless*
- This **2017 FCC press release** indicates the goal is to remove 5G infrastructure barriers, despite public health hazards: *http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0420/DOC-344486A1.pdf*
- They are filing **legislation to remove objections from cities and towns**. Click here for details.
- Fine Print **legal notices warn against keeping devices on the body**.
- Harvard's Captured Agency Report explains how the **FCC has a long history of ignoring the science, placing corporate profit over public health**. The Nation magazine in 2018 published a similar investigative report, *How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation*.

**Cell Towers in Church Spires & On Buildings**

- *The O'Dwyer Report* covered the issue of cell towers in churches: http://www.odwyerpr.com/story/public/9407/2017-09-18/church-spires-point-heaven-but-deliver-hell.html
- One concerned resident was effective at educating her church on the risks of putting a cell tower in the local church tower, and together they came up with a plan to **protect the community** and help the church: http://www.collective-evolution.com/2017/04/08/how-love-stopped-the-cell-tower/
- The following article indicates how industry targets building owners to offer revenue for leasing their **rooftops for cell antennas**: https://www.habitatmag.com/Publication-Content/Bricks-Bucks/Cell-Towers?fbclid=IwAR1rT6kedI6uZbEN_DK8vYUDEZUgPB9adgsky8jRWeHRTE4PXpfcW-zt42U
- Journalist Jesse Jones (844-775-3773) reports Seattle **housing authority** receives $1M for allowing industry to mount cell antennas on many of their buildings. A resident experiencing microwave sickness symptoms hired a building biologist who measured bedroom readings 16x higher than building biology hazard levels: https://www.kiro7.com/video?videoId=847413590&videoVersion=1.0&fbclid=IwAR2dJlKgb-UDAnvBQvBJ3hA9dsJ0P8RMuS_4XAxs26s7VsUo4F4wCIRp42E

**Schools Banning Cell Towers**

- In 2019, Sprint agreed to remove a cell tower from a school in **Ripon, California** after a cancer cluster developed with children, teachers and alumni: https://mdsafetech.org/2019/03/25/cell-tower-to-be-removed-after-4th-ripon-student-diagnosed-with-cancer/?fbclid=IwAR2t1HSRv06Q1aXQgDcNTcSkuVxhYq0IveFNJDv8TcR0jufC111OxjitAqI
- The **Los Angeles Unified School District** has adopted several Board resolutions that ban cell towers on or near school grounds:

*http://emrpolicy.org/news/headlines/29may09_lausd_press_release.pdf*

*http://sunroomdesk.com/2009/12/10/lausd-calls-for-increased-setbacks-advance-notification-on-locations-near-schools/*

- See the **Environmental Health Trust** for information to provide schools:

*https://ehtrust.org/cell-tower-proposed-near-home-childs-school-need-scientific-resources-health-safety/*

**Communities Taking Action**

- **Attorney Andrew Campanelli** indicates the wireless industry provides disinformation to our towns and there are 20 legal strategies our municipalities can deploy legally to strengthen by-laws and put zoning protections in place. See 11-minute segment with the Pittsfield, MA Community Development Board: https://www.youtube.com/watch?v=TF2XlZvxmPM
- The **Town of Burlington, Massachusetts** proactively adopted a small cell policy in October 2018 and when they included a fee assessed on the telecom vendors for an annual recertification, the Verizon lawyer withdrew their applications for seven small cell systems:
    - Burlington Cable Access Television reported, "Verizon Drops Small Cell Wireless Booster Application in Face of Fees": https://bcattv.org/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees/

To see how the conversation went at the Board of Selectmen meeting, skip ahead to any of the following segments (other non-related items are covered at the beginning of the meeting):

-
    - 94:19 Discussion of their small cell policy, which is approved unanimously; the woman on the right is the town's lawyer who provides good insights
    - 113:50 Open public hearing on Verizon's seven small cell applications
    - 147:39 Verizon lawyer withdraws their applications http://www.bcattv.org/programming/government-channel/board-of-selectmen/board-of-selectmen-october-22-2018/

The town established a website to share with the public each of the small cell applications, letters of concern, staff comments and reports. These provide a view into what this process

looks like when telecoms submit applications, how municipalities can retain control, and how citizens can engage in the process:

https://www.burlington.org/Search?searchPhrase=small%20cell

The local Burlington cable station, WBCAT TV, produced a 70-minute program called *BNEWS In Depth: Potential Dangers of Wireless Tech; Burlington Small Cells Policy* which can serve as an example for other communities to emulate:

https://www.youtube.com/watch?time_continue=13&v=JlJ0u8e7MMw

- Citizens in **Shelburne, MA** worked with their town and adopted by-laws to include a 1,500' setback from residences and 3,000' setback from schools: https://alpaca-chinchilla-x6xf.squarespace.com/s/A__Shelburne_Zoning_Bylaw_May_2018.pdf
- **Physicians for Safe Technology** lists many communities that are putting protections in place: https://mdsafetech.org/cell-tower-and-city-ordinances/
- Citizens in **Monterey, California** share their strategy for successfully rejecting cell towers: *https://www.emfconsultant.com/-e2-80-a2--How-to-Reject-a-Tower.html*

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## Question 13.a., e. Effects of technologies

# 5G & IOT

**Wireless Sunsetting**

- The U.S. Commerce Department and National Telecommunications and Information Administration are now positioning wireless as a secondary service with **fiber directly to the premises** as the best and most reliable service: broadbandbreakfast.com/2022/05/commerce-departments-ntia-releases-details-for-funds-distributed-under-iija/
- See testimony from retired **Microsoft Canada President Frank Clegg to the New Hampshire legislature**, including the statement, "Wireless technology is no longer the preferred technology for communications." alpaca-chinchilla-x6xf.squarespace.com/s/Clegg-Comments-to-New-Hampshire-Science-Technology-and-Energy-Committee-7-Feb-2022.pdf
- See **ordinances** from towns that have already put protections in place to prevent close-range cell antenna/small cell installations: ehtrust.org/what-communities-have-strong-setbacks-for-cell-antennas-near-homes-and-schools/
- **Wikipedia** lists many communities across the U.S. that are already investing in fiber-to-the-premises (FTTP) sometimes called fiber-to-the-home (FTTH): en.wikipedia.org/wiki/Fiber_to_the_premises_in_the_United_States
- Dr. Magda Havas provides a ten-minute video of the **Pros and Cons of 5G** to share with municipalities and your neighbors: https://www.youtube.com/watch?v=kxeelLJNQLA

**The Science**

- Case Report: The **Microwave Syndrome After Installation of 5G** Emphasizes the Need for Protection from Radiofrequency Radiation: www.gavinpublishers.com/article/view/case-report-the-microwave-syndrome-after-installation-of-5g-emphasizes-the-need-for-protection-from-radiofrequency-radiation

- The 2022 study, "**Measurements of radiofrequency electromagnetic fields, including 5G**, in the city of Columbia, SC, USA" shows the blanketing of our cities in electrosmog, and calls for labeling of small cells so the public can avoid them at close range: www.spandidos-publications.com/10.3892/wasj.2022.157
- See 2021 **epidemiological study showing headaches, dizziness, insomnia, nightmares** and more from wireless radiation exposures, *What is the radiation before 5G? A correlation study between measurements in situ and in real time and epidemiological indicators in Vallecas, Madrid*: https://pubmed.ncbi.nlm.nih.gov/33434609/
- Martin Pall, PhD, 2021, Millimeter (MM) wave and microwave frequency radiation produce **deeply penetrating effects: the biology and the physics: www.degruyter.com/document/doi/10.1515/reveh-2020-0165/html**
- See **5G Wireless Technology: Millimeter Wave Health Effects** by Joel Moskowitz, PhD: https://www.saferemr.com/2017/08/5g-wireless-technology-millimeter-wave.html
- **CIA Translations on USSR** Science and Technology Biomedical Sciences, Effects of Nonionizing Electromagnetic Radiation, 1977, includes, among other studies, Biological Effects of Millimeter Radiowaves on p. 61: alpaca-chinchilla-x6xf.squarespace.com/s/CIA-Declassified-USSR-Translation-Nonionizing-EMR-Effects-1977.pdf
- In September 2017 over **180 scientists and doctors from 35 countries** sent a declaration to officials of the European Commission demanding a **moratorium** on the increase of cell antennas for planned 5G expansion. Experts have also signed on from the U.S. and other non-European countries: https://www.emfcall.org/
- In 2018, **Martin Pall, PhD,** Professor Emeritus of Biochemistry and Basic Medical Sciences wrote: 5G: Great risk for EU, U.S. and International Health: Compelling evidence for eight distinct types of great harm caused by electromagnetic field (EMF) exposures and the mechanism that causes them
- Dr. Pall also contributed this information to the 5G Crisis: Awareness and Accountability Summit in the following .pdf document, "**5G Risk: The Scientific Perspective**":

http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/5G-Risk-The-Scientific-Perspecitve%20(1).pdf

- Others have found Dr. Pall's December 2019 lecture especially helpful, "**Massive Predicted Effects of 5G**": http://coeursdehs.fr/pr-martin-pall-massive-predicted-effects-of-5g-in-the-context-of-safety-guideline-failures/
- The Environmental Health Trust has put together **Peer Reviewed Published Science on Radiation from 4G/5G "Small" Cell Wireless Antennas**: https://ehtrust.org/peer-reviewed-published-science-on-radiation-from-4g-5g-small-cell-wireless-antennas/?fbclid=IwAR0X7MlRhfXZ2Irn-sgmDnUjwI0nMi_5vVj8fjiOcvVaTipz_ZoC-mOq74U
- Ronald Kostoff, Ph.D. at Georgia Institute of Technology School of Public Policy issued a 2020 report called, "The Largest Unethical Medical Experiment in Human History". Appendix 5 shows the potential contribution of wireless radiation to exacerbation of the coronavirus pandemic (p. 651). He provides a bibliography on studies showing EMF effects on the immune system. **Wuhan, China, where the coronavirus broke out, is a 5G smart city**: https://smartech.gatech.edu/bitstream/handle/1853/62452/LARGEST_UNETHICAL_MEDICAL_EXPERIMENT_FINAL.pdf?sequence=4&isAllowed=y
- This is one of the studies by Doyon and Johansson cited in Dr. Kostoff's paper above that addresses the **impact on the immune system**: https://www.sciencedirect.com/science/article/abs/pii/S0306987717301718
- As evidenced below by the **IEEE, the millimeter waves** being incorporated into 4G/5G small cell and satellite technology have long been used in medicine to alter biological systems; we should not be exposing the public or planet to ubiquitous microwave or millimeter waves that can alter biology: https://ieeexplore.ieee.org/document/6338252
- Dr. Andrew Goldsworthy explains **what 5G radiation does at the cellular level**, and why it is likely exacerbating **COVID-19**: https://www.emfsa.co.za/news/andrew-goldsworthy-biologist-responds-to-eric-van-rongens-icnirp-statements-about-5g/
- Tom Cowan, M.D., contributed articles with information from Martin Pall, Ph.D. predicting **massive effects from 5G** and Arthur Firstenberg outlining **pandemics**

**following the rollout of new radiofrequency radiation technologies** since at least 1779: https://fourfoldhealing.com/blogs/news/an-important-question-about-the-coronavirus-plus-immune-support-tips

- Arthur Firstenberg explains **"phased array**", the most dangerous aspect of 5G cellular antennas: http://www.cellphonetaskforce.org/5g-from-blankets-to-bullets/
- With gratitude to Lena Pu, the following **studies and articles** provide additional information:
  - https://www.ncbi.nlm.nih.gov/pubmed/27087527?dopt=Abstract
  - https://www.researchgate.net/profile/Daniel_Fels/publication/281409607_Fields_of_the_cell/links/5615216108aed47facefb302/Fields-of-the-cell.pdf
  - http://jnlwp.defense.gov/About/Frequently-Asked-Questions/Active-Denial-System-FAQs/
  - http://preventdisease.com/news/09/110109_body_scanners_thz_waves.shtml
  - http://aph.huji.ac.il/people/feldman/research.htm#Human%20Skin%20as%20Arrays%20of%
  - 20Helical%20Antennas%20in%20the%20Millimeter%20and%20Submillimeter%20Wave%20Range
  - https://jasonprall.com/blog/millimeter-wave-scanners-alter-dna/
  - Radio Frequency Technology damages Plant DNA in 48hrs and is carcinogenic, new research reveals | EmaxHealth
  - Radiofrequency radiation injures trees around mobile phone base stations
  - Anthropogenic Radio-Frequency Electromagnetic Fields Elicit Neuropathic Pain in an Amputation Model
  - https://www.researchgate.net/publication/51394628_Human_Skin_as_Arrays_of_Helical_Antennas_in_the_Millimeter_and_Submillimeter_Wave_Range

- **Professor Curtis Bennett**, Chief, International Science Advisory Board for IHF (14,000 members) and Adjunct Professor for Accredited Medical Education for CME Credits has been a Thermal Radiation Consultant for 38 Years. He is an Interprovincial Journeyman Electrician (Red Seal) and a Building Construction Engineering Technologist in Canada. He indicates the microwave pulses from 5G infrastructure will compromise the integrity of our buildings, causing them to fall out of code. "Your buildings, infrastructure, etc is not designed to be in microwave ovens. The oscillations of atoms and molecules 180 degrees 1.8 billion times per second, 86,400 times a day is one antenna, wi-fi was 4.9 billion times per second."

  He states, "The US plan is to mass install 300,000 mini towers for the 5G grid. Killing your taxpayers, crops, economy and losing the tax base is a national and international security issue. President Trump doesn't know what the previous political interests did. Mr Obama legacy will include the first African American President to put all races in a mad made microwave oven; Trump is making the ovens bigger... The world shares one atmosphere, 300,000 mini towers affect every country. Heating the atmosphere from space has consequences like extreme weather unlike any seen, fires, floods, droughts, etc and it is already happening." Contact: www.thermoguy.com, curtis@thermoguy.com

- The study, "Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz" also shows **insects will be negatively impacted** by 5G radiation: https://www.nature.com/articles/s41598-018-22271-3

- See also the **Planetary Impact** page.

**Cell Tower & Small Cell Locations**

- **AntennaSearch.com** enables one to enter an address in the U.S., and see a report showing the big macro cell antenna and cell tower installations within a three-mile radius; in some cases, like Boston, it will return only a one-mile radius because there are so many: http://www.antennasearch.com/

- See also **Ookla 5G Map** for small cell installations in your area, worldwide: https://www.speedtest.net/ookla-5g-map

- See **Verizon's coverage map**: https://www.verizon.com/coverage-map/

- In 2019 the Association of Public Safety Communications Officials (APCO) International in conjunction with the American National Standards Institute released the **ANSI/APCO Public Safety Grade Site Hardening Requirements** standard to ensure our public safety communications systems withstand man-made and natural disasters. These should be incorporated into communication zoning code in every community: www.apcointl.org/~documents/standard/21061-2019-psg-site-hardening/?layout=default

**The Issue**

- **Retired President of Microsoft Canada, Frank Clegg** summarizes in this 8-minute public service announcement the urgency of halting 5G and instead choosing safe fiber to the premises: https://www.youtube.com/watch?v=xW7BbztmuYg&feature=emb_logo
- In this 5-minute video, **Mr. Clegg debunks industry disinformation from Dean Prevost, a President of Rogers Communication** in Canada: www.youtube.com/watch?v=LqPJxyeDqYo
- **EMF Scientist Magda Havas, PhD**, provides this 9-minute overview of 5G benefits and risks to municipalities: www.youtube.com/watch?v=B8lA2a296XI&t=42s
- **Dr. Cindy Russell**, Executive Director of Physicians for Safe Technology, has produced short videos for citizens to share with their local towns, schools, legislators and loved ones to explain wireless risks. She has a 3-minute clip on cell towers: www.youtube.com/@MDSafeTech
- SpeedTestHQ indicates home routers are built to **connect 250 wireless devices**; this creates heavy invisible electropollution and adds to the body's toxic load: https://www.speedtesthq.com/guides/wifi/how-many-devices-wifi-handle
- The industry and FCC have changed the Over the Air Reception Device **(OTARD) Rule**. Industry can now offer property owners perks to put small cell and other equipment on their rooftops/property with no municipal oversight. This will allow close-range radiation to be pulsed across the neighborhood: https://www.federalregister.gov/documents/2021/02/25/2021-01304/fcc-modernizes-siting-rule-for-small-hub-and-relay-wireless-antennas

- Wireless companies are already offering incentives in certain communities to **mount wireless antennas on one's property**: https://patch.com/arizona/tucson/ep/1867139
- We Link www.welink.com, came to a resident's door and offered her free internet access if she would put a hub antenna on her rooftop that would serve the neighboring homes.
- This eight-minute video from a gentleman in Rhode Island discusses **ten specific pitfalls with 5G** indicating in each instance that fiber optics is the much better solution; this, and Mr. Clegg's video above, are good to start the conversation with your municipalities: https://www.youtube.com/watch?v=w0f7OolgbkI&feature=emb_logo
- State and federal preemption of local authority to regulate small cells is straining local governments at a time when they can ill afford it. This report from the **National Association of Telecommunications Officers and Advisors (NATOA)**, with assistance from the Communications Workers of America (CWA), draws on a survey of local governments and examines the effect of small cell preemption: https://assets.noviams.com/novi-file-uploads/natoa/20210317_NATOA_CWAReport.pdf
- In December 2020 the **European Parliament** began an investigation into wireless radiation, especially 5G. The panel is a two-hour session with six representatives from industry and science. In the final minutes the Parliamentarian discredits the industry's claims and calls for a moratorium on 5G. The moderator recommends emulating the New Hampshire, USA, commission's investigative process. See NH report recommendations. https://multimedia.europarl.europa.eu/en/panel-for-future-of-science-and-technology-workshop-on-5g_20201207-1000-SPECIAL-STOA_vd
- In July 2021 the Scientific Foresight Unit (STOA) of the **European Parliament completed their *Health Impact of 5G* report**, documenting biological harm from 7,886 studies and recommending reduction in exposure levels and limits, implementing fixed hard-wired fiber-optic solutions, educating the public on safe technology use, and determining long-term effects of 5G: www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS_STU(2021)690012_EN.pdf

- **Easton, Connecticut** unanimously banned 5G until proven safe for health and environment, and reaffirmed their ban in 2022: https://ehtrust.org/easton-connecticut-usa-bans-5g/; www.ctinsider.com/fairfield/article/Easton-extends-ban-on-5G-infrastructure-17188173.php.
- **Keene, New Hampshire** put a moratorium on 4G/5G small cell infrastructure until the New Hampshire legislature issues their investigative report: https://www.sentinelsource.com/news/local/city-council-approves-temporary-5g-ban-in-keene/article_1341857d-4c7c-5fb4-ab27-70d8e5b9d131.html.
- **Lille, France**, has put a moratorium on 5G noting health risks, questioning benefits vs. costs, and financial constraints during COVID-19: https://www.lefigaro.fr/flash-eco/5g-le-conseil-municipal-de-lille-vote-un-moratoire-sur-le-deploiement-20201010
- See the **Environmental Health Trust's compilation** of cities taking action across the U.S.: https://ehtrust.org/usa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways/?utm_source=social&utm_medium=twitter&utm_campaign=ordinances
- **Katie Singer,** journalist and author of the book *Electronic Silent Spring*, puts into easy language what 5G is and why it is bad for our communities, our health and the environment; see her blog post, "Our Web of Inconvenient Truths": http://www.electronicsilentspring.com/march-2019-blog/
- See the article *Global Wi-FI and 5G: What is the Environmental Price Tag to Earth and Life?* to understand the impact of 5G **satellites** and other components: https://blog.sfgate.com/storystudio/2020/11/17/global-wifi-and-5g-what-is-the-environmental-price-tag-to-the-earth-and-life/
- The military is developing **5G for warfare**: https://www.defense.gov/Newsroom/Releases/Release/Article/2376743/dod-announces-600-million-for-5g-experimentation-and-testing-at-five-installati/
- For those concerned with climate change, this article from the Institute for Electrical and Electronics Engineers (IEEE) indicates, "**Wireless technologies will continue to consume at least 10 times more power than wired technologies** when providing comparable access rates and traffic volumes." See page 7 of 8, just above Conclusions, which indicate

hard wiring with fiber-optics to the premises is the most energy efficient solution. https://people.eng.unimelb.edu.au/rtucker/publications/files/energy-wired-wireless.pdf

- Founder of Environmental Health Trust, Dr. Devra Davis, is a Nobel Peace Prize co-laureate on climate change, and offers a **two-page fact sheet** on the escalating impact of wireless on climate change with the push for 5G and the Internet of Things (IoT). This is a terrific resource to share with local, state and federal officials since most have climate change as a strategic priority at present: https://ehtrust.org/climate-change-and-5g/
- See also the EHT page, "**Reports on the Increasing Energy Consumption of Wireless Systems and Digital Ecosystem**": https://ehtrust.org/science/reports-on-power-consumption-and-increasing-energy-use-of-wireless-systems-and-digital-ecosystem/
- **Dr. Barrie Trower**, retired British Royal Navy physicist, gives an overview of what happens when we microwave our trees and planet; we are losing our trees, bees, plants, fish, and children. 5G is going to exacerbate the existing harm of current wi-fi frequencies: *https://www.youtube.com/watch?time_continue=6&v=TZ3t6n2SkUY&feature=emb_logo*
- The policy paper, "**Re-Inventing Wires: The Future of Landlines and Networks**," details why the U.S. and our communities should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment.
- **Claire Edwards**, retired United Nations editor/trainer, has put together a chronology of 5G push-back happening all over the world, including the U.S.: https://www.globalresearch.ca/telcos-losing-battle-impose-5g/5691065
- In 2020 Dr. Lennart Hardell and Dr. Rainer Nyberg published an article in *Molecular and Clinical Oncology* on governments promoting industry profits to the detriment of human health and the environment. See "**Appeals that matter or not on a moratorium on the deployment of the fifth generation, 5G, for microwave radiation**": https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7016513/
- Dr. Hardell also published a paper exemplifying how **so-called experts testify at government hearings** but have no real expertise in EMF science, may have industry conflicts of interest, and/or fail to do their due diligence in examining the non-industry

funded scientific evidence of harm. Dr. Hardell corrects the record on many statements such representatives commonly make to public policy decision-makers: https://www.spandidos-publications.com/10.3892/wasj.2019.28/download

- This 98 page report was commissioned, coordinated and published in June 2020 by two Members of the European Parliament – Michèle Rivasi and Klaus Buchner, ***The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G***: https://www.saferemr.com/2018/07/icnirps-exposure-guidelines-for-radio.html
- Americans for Responsible Technology and 5G Crisis produced a **5G Space Wars** webinar to discuss with experts the planetary impact of thousands of 5G antennas pulsing toxic radiation from the sky: https://www.youtube.com/watch?v=Qh8tIScM2a0&t=10s
- Celestrak.com offers a real-time website tracking the **growing atmospheric pollution** from active satellites, dead equipment, rocket bodies, debris and more surrounding the earth; the items load after a few seconds; click on the three bars in the top left corner and select Satellite Catalog to see what each dot is and who owns it: https://celestrak.com/cesium/orbit-viz.php?tle=/pub/TLE/catalog.txt&satcat=/pub/satcat.txt&referenceFrame=1
- 5G antennas pose biological and legal risks to **workers caring for trees**: https://tcimag.tcia.org/tree-care/beware-the-dangers-from-am-radio-and-5g-transmission-sites/?unapproved=1568&moderation-hash=180de4c4a6ed8f76bee757ff81fddede#comment-1568
- This is also an **environmental justice issue** as noted by Hartford, Connecticut legislators and residents: https://www.5gcrisis.com/post/hartford-ct-verizon-targets-minority-community-to-deploy-hazardous-5g-antennas

**5G Revenue Stream**

- The wireless industry plans to **harvest data** from the Internet of Things infrastructure and products, to sell to others for a profit: https://www.ericsson.com/en/blog/2020/10/enterprise-iot

- They are also **buying up entertainment companies** as they promote faster streaming speeds: https://www.cbsnews.com/news/disney-fox-entertainment-purchase-closes-71-billion-dollars-closes/
- Industry incentivizes customers to adopt their new toxic technology by giving them **free devices**, thereby creating demand to put the new close range wireless infrastructure -- both small cells and the bigger macro cells needed to power the small cells -- in our neighborhoods to connect to the new devices. Protect your community, don't upgrade to 5G:
  - Verizon started this on June 1, 2021 Verizon will give you a free smartphone to upgrade to 5G (yahoo.com)
  - T-Mobile started this on April 7, 2021 T-Mobile will give a free phone with 5G in all of 2021 - Android Authority
  - AT&T started this on Sep 3, 2020 Samsung Smartphone Deals for New and Existing AT&T Customers (att.com)

**5G is Not Living Up To Industry Promises**

- The industry promotes faster speeds, but the Washington Post reports, "**The 5G lie: The network of the future is still slow**": https://www.washingtonpost.com/technology/2020/09/08/5g-speed/?utm_campaign=wp_evening_edition&utm_medium=email&utm_source=newsletter&wpisrc=nl_evening
- **PC Magazine** also reports slow speeds: https://arstechnica.com/information-technology/2020/09/atts-current-5g-is-slower-than-4g-in-nearly-every-city-tested-by-pcmag/
- **Computer World** reports, At This Point "5G is a Big Joke": https://www.computerworld.com/article/3575510/at-this-point-5g-is-a-bad-joke.html
- "In fact, human societies do not have an urgent need for 5G," said **Huawei's founder and CEO, Ren Zhengfei**, "What people need now is broadband, and the main content of 5G is not broadband." https://international.thenewslens.com/article/141712

- This two-hour industry pitch illustrates how they convince our towns 5G is fine and desirable. ***Webinar on Demand: Small Cell Deployments: The Critical Factors Involved in Achieving Swift Approval:*** https://www.youtube.com/watch?v=_AITgZWJofU&authuser=0

**Legal Issues**

- See **Stop5G.org** for a toolkit from attorneys at Children's Health Defense: www.stop5g.org/
- In addition to the following information, see also the **Legal Issues page** in this repository: https://sites.google.com/site/understandingemfs/legal-issues
- **Dutch court** rules in favor of public health instead of 5G masts: https://letstalkabouttech.nl/2021/01/nederlandse-rechter-mogelijk-verhoogde-gezondheidsrisicos-zendmast/?fbclid=IwAR1NowE4QkJrHNJDRBsTMOvRsDPJe3c-P6-qi0uK5X9B3xojEsyo4fJ37kQ
- Michael Mansfield QC is leading **a legal team challenging the UK Government over its failure** to take notice of the health risks and public concern related to 5G: https://actionagainst5g.org/legal-case/
- **Montgomery County, Maryland,** is suing the FCC over unsafe 5G radiation: https://bethesdamagazine.com/bethesda-beat/government/county-to-sue-fcc-over-radio-frequency-emission-standards-for-small-cell-antennas/
- **Michigan Senator Patrick Colbeck** provides testimony to the legislature indicating 5G and IoT are biologically hazardous, and reminds his colleagues it is their primary duty to protect public health over technological convenience or economic growth: https://www.youtube.com/watch?time_continue=1&v=hkDDQqDVsbk
- See Senator Colbeck's website for additional actions he is taking to educate the legislature and the public: https://www.senatorpatrickcolbeck.com/wireless-radiation/
- **Massachusetts** is leading the U.S. with multiple bills to address man-made radiation that citizens can ask their legislators to emulate: Massachusetts EMF Bills

- The **City of Boston in June 2020 filed a formal complaint with the FCC** questioning the safety of their RF public exposure limits: https://img1.wsimg.com/blobby/go/18add696-2410-4f74-a623-35ee3c12832d/downloads/FCC%2019-226%20COMMENTS_BostonMA.pdf?ver=1592952452329
- The **City of Boston in August 2020 filed a lawsuit** against the FCC for usurping local control, and it was combined with similar cases around the country. The FCC petitioned to have the case transferred from the DC Circuit Court to the 9th Circuit Court in California, which had already ruled in the FCC's favor in a similar case: https://alpaca-chinchilla-x6xf.squarespace.com/s/CITY-OF-BOSTON-MA-et-al-v-FCC-petition_No-20-1301_08102020.pdf
- **Other states** are also introducing legislation to regulate technology including 5G, wireless radiation, and excessive screen time for children. New Hampshire has passed a law to investigate the health and environmental impact of 5G, and Oregon has passed a law to have their health department investigate the non-industry funded science and advise their schools on safe technology: https://sites.google.com/site/understandingemfs/massachusetts-emf-bills-2019-20/bills-in-other-states-2019-20
- In October 2018 **FCC Commissioner Brendan Carr** indicated 5G is safe during a Souix Falls, SD hearing: https://www.youtube.com/watch?v=0bb8sPOozso&t=1s

In December 2018, **Connecticut Senator Richard Blumenthal and Congresswoman Anna Eshoo** formally asked Mr. Carr to provide the scientific proof of safety he claims: https://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Felectromagnetichealth.org%2Fwp-content%2Fuploads%2F2018%2F12%2FIMG_20181203_0002.pdf&esheet=51908511&newsitemid=20181203006017&lan=en-US&anchor=for+pressing+FCC+Commissioner+Brendan+Carr%2C+Esq.&index=1&md5=8cb325acd3393fc87daf951ff39c39ac

Senator Blumenthal held a **press conference** on 5G technology and his request that the FCC provide proof of safety: http://ct-n.com/ctnplayer.asp?odID=15794&jump=0:00:01

Medical and science journalist and radiofrequency radiation expert **B. Blake Levitt** shared comments at the above press conference, including the Harvard report indicating the FCC is a "Captured Agency" dominated by the industry it presumably regulates. The transcript of her remarks are as follows:

https://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Felectromagnetichealth.org%2Fwp-content%2Fuploads%2F2018%2F12%2FBlumenthals-FCC-Letter-Press-conference.pdf&esheet=51908511&newsitemid=20181203006017&lan=en-US&anchor=See+Levitt+Remarks.&index=4&md5=33047ab8a542ccc9933a6eae254e1f1f

- **FCC Commissioner Brendan Carr** responded by continuing to deny health risks and quoted Jeffrey Shuren, M.D., J.D., Director of the FDA's Center for Devices and Radiological Health. The FDA appears to be another captured agency as it denies there is harm instead of recognizing the NTP study's "clear evidence" of cancer and DNA damage: https://www.blumenthal.senate.gov/imo/media/doc/2018.12.17%20FCC%20Carr%20to%20Blumenthal%20and%20Eshoo%20re%20RF%20Safety.pdf
- **Congresswoman Eshoo** subsequently introduced federal legislation to restore local control in deployment of 5G: https://eshoo.house.gov/news-stories/press-releases/eshoo-introduces-legislation-to-restore-local-control-in-deployment-of-5g/ http://scientists4wiredtech.com/wp-content/uploads/2019/01/2019-0114-HR-530.pdf
- In February 2019, **Senator Blumenthal called out the FCC** in a Senate Commerce, Science, and Transportation Committee hearing. Blumenthal also criticized the FCC & FDA for inadequate answers on outstanding public health questions, and the wireless carriers concede they are not aware of any independent scientific studies on safety of 5G technologies: https://www.blumenthal.senate.gov/newsroom/press/release/at-senate-commerce-hearing-blumenthal-raises-concerns-on-5g-wireless-technologys-potential-health-risks
- Thank you to the Environmental Health Trust for providing this **4-minute clip** of Blumenthal questioning the industry on safety research, whereupon he concludes we are "flying blind here so far as health and safety is concerned": https://www.youtube.com/watch?v=ekNC0J3xx1w

- April 15, 2019 Rep. **Peter A. DeFazio (D-OR), House Transportation and Infrastructure Committee Chairman**, also wrote a letter to FCC Chairman Pai and acting FDA Commissioner Sharpless: https://ehtrust.org/another-congressperson-seeks-answers-from-the-fcc-and-fda-on-5g-radio-frequency-health-impacts/
- Should the federal bills fail, the industry is already trying to get laws into place **state by state** that would take away local authority for 5G infrastructure:
    - The National Conference of State Legislatures maintains a fairly current list of **state-level Mobile 5G and Small Cell 2019 Legislation:** http://www.ncsl.org/research/telecommunications-and-information-technology/mobile-5g-and-small-cell-2019-legislation.aspx
    - Cleveland and 80 other towns are **suing the State of Ohio** over one such bill. One lawsuit has already **struck down the industry**, the Franklin County judge ruled for local governments in micro-wireless equipment dispute: http://www.dispatch.com/news/20170602/franklin-county-judge-rules-for-local-governments-in-micro-wireless-equipment-dispute
    - **California's Governor Jerry Brown vetoed** a similar bill in October 2017, SB.649: http://www.mercurynews.com/2017/10/16/california-gov-jerry-brown-vetoes-bill-easing-permits-on-cell-phone-towers/
    - The **California State Association of Counties** submitted an opposition letter: http://blob.capitoltrack.com/17blobs/b4e0d108-b979-42a8-95d9-e0cd461d5a19. The **League of California Cities** also opposed SB.649: https://www.cacities.org/SB649. You can see their **testimonies** here, along with many others opposing this bill.
    - The **California Alliance for Safer Technology** has produced a two-page fact sheet for their legislators that can be used by others.
    - See the **SMALL WIRELESS FACILITIES MODEL ORDINANCE - MASSACHUSETTS** below. This is a by-law Verizon is trying to persuade municipalities to adopt. It would pass the legal risk liability on to the towns, and place restrictions on local control:

https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYjc2MTMzYTNlMTM0YjFj

- In 2017 the **Pennsylvania Public Utilities Commission** "voted, 4-1, to reaffirm an earlier vote to no longer designate the distributed-antenna companies as utilities." This preserves local control: https://www.philly.com/philly/business/comcast/philly-and-suburbs-brace-for-attack-of-the-small-cells-20170601.html?arc404=true
- **Lancaster, PA also adopted its own ordinance** to protect local authority and public health: http://www.cityoflancasterpa.com/sites/default/files/documents/Ord0916%20-%20Wireless%20Tower%20regulation.pdf
- **Grassroots Environmental Education** has collected the best ideas from cities and towns all over the country that are pushing back against the FCC and the unfettered roll-out of small cell wireless facilities.
- If your town is receiving requests from wireless carriers or antenna construction companies for permission to construct small cell facilities in public rights-of-way, or if industry is trying to pass themselves off as a public utility, this document is **what towns need to get started with code** to protect property values, privacy, safety and public health. You'll find other helpful tools here as well, including a state law template: https://www.5gcrisis.com/toolkit

- **The U.S. Conference of Mayors** issued a formal statement opposing the usurping of local property rights: https://www.usmayors.org/2018/09/10/statement-by-u-s-conference-of-mayors-ceo-executive-director-tom-cochran-on-fccs-order-proposing-to-usurp-local-property-rights/
- **Native American tribes** are suing to prevent the industry from circumventing permitting processes and forcing 5G infrastructure onto their lands: http://www.insidesources.com/more-tribes-signing-on-to-lawsuit-fighting-fcc-rule-change-for-5g-installation-permits/
- The **insurance industry has identified EMF/RF as a leading risk**. Lloyds of London, Swiss RE and others have already put exclusions in their policies. See the Legal Issues page.

- The Environmental Health Trust is tracking **activity in each state**: https://ehtrust.org/list-us-state-bills-streamlining-wireless-small-cellsdasnodes-rights-way/.
- The **Town of Burlington, Massachusetts** proactively adopted a small cell policy in October 2018 and when they included a fee assessed on the telecom vendors for an annual recertification, the Verizon lawyer withdrew their applications for seven small cell systems:
- Burlington Cable Access Television reported, "Verizon Drops Small Cell Wireless Booster Application in Face of Fees": http://www.bcattv.org/bnews/top-stories/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees
- See more Burlington details on the Cell Towers page.
- The Village of **Western Springs, Illinois** in December 2019 successfully stalled a Crown Castle 4G/5G small cell application under the National Environmental Policy Act (NEPA) which requires an environmental impact review: https://americansforresponsibletech.us8.list-manage.com/track/click?u=c3128cbc75b5968aacd624e4b&id=d2f6cf3ddc&e=1210d13921

**Cost Analysis**

- This article compares the **costs of fixed wireless vs. fiber to the premises, and concludes the latter is a far better broadband solution:** isemag.com/2021/09/telecom-2021-broadband-access-economic-comparison/?fbclid=IwAR0Rl0wa9TjK_hVxUk1-x6aUTjuVKPWsLRYj8LL3cJ7hvAIZhwGf5b5BqFg
- **IEEE** has done the cost analysis and concluded Fiber "Optical access networks are the most energy efficient of the available access technologies." **Wireless consumes much more energy than hard-wired fiber optics**: https://ieeexplore.ieee.org/document/5783987/
- The **California Department of Finance** opposed the 5G S. 649 bill for the following fiscal reasons:

*http://wireless.blog.law/wp-content/uploads/2017/08/SB-649-20170823084049AM-SB006491.pdf*

- The following letter from the Law Offices of Harry V. Lehmann PC addresses the **liability shifting** aspect which implies possible billions in losses at the state level since the industry has no liability insurance: http://scientists4wiredtech.com/wp-content/uploads/2017/10/2017-0719-SB649-CA-Liability-Lehmann-to-Galehouse.pdf
- Lloyd's discusses the **security risks of smart cities**: https://cityriskindex.lloyds.com/2019/02/05/smart-cities-wake-up-to-cyber-threat/?fbclid=IwAR2T3jrTbUHjaLFQ-_TnmCdlvOh_9Ufb4D4s3kSr3-S7bxV4mci8pJCr92Q
- **Russia's** largest telecommunications company, MTS, **does not see the business case for 5G** and is instead continuing to invest in fiber-optics to carry data signals:

https://www.theregister.co.uk/2017/03/30/russian_megatelco_mts_exec_no_business_case_for_5g/

- ***Root Cause in the Dramatic Rise of Chronic Disease*** links chronic illness to peroxynitrite from environmental toxins, at a conservatively estimated cost of $2.5 trillion per year in the U.S. In this 16-minute lecture, **Dr. Martin Pall** explains how EMF/RF creates peroxynitrite:

*https://www.youtube.com/watch?v=3kQQyU8NHv8*

- **Bloomberg** indicates, "Upgrade to 5G Costs $200 Billion a Year, May Not Be Worth It": https://www.bloomberg.com/news/articles/2017-12-18/upgrade-to-5g-costs-200-billion-a-year-and-may-not-be-worth-it
- Although fiber-optics is better for the country, the industry is trying to block it at the state and municipal level. **Millions of Americans have been priced out of, or entirely excluded from, the reach of modern internet networks.** Maria Smith, an affiliate of the Berkman Klein Center for Internet & Society and Harvard Law School, created the four-part documentary series Dividing Lines to highlight these stark divides, uncover the complex web of political and economic forces behind them, and challenge audiences to imagine a future in which quality internet access is as ubiquitous as electricity: https://www.dividinglines.org/

**Medical Perspective**

- **Dr. Cindy Russell's** article overviews 5G, the Internet of Things (IoT), scientific findings, and what we can do to protect our citizens: *https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYjc5ZTk4OWM2ODA0YmNl*
- **Dr. Russell** also published the following 5G article in **Environmental Research August 2018**, "5G wireless telecommunications expansion: Public health and environmental implications": https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyOTE0NGQxYjNhYzYyZGZh
- 5G Technology: Potential Risks To Human Health: Excerpts From **Scientific Conference:** https://www.youtube.com/watch?v=QvPg1AyQ43I
- The following **ADA Accommodations Request Packet** provided by the non-profit Center for Electrosmog Prevention may be used by those with ES (electrosensitivity) or certain medical conditions who must avoid increased radiofrequency radiation in the United States to apply for reasonable accommodations to help avoid RF radiation from "small cells" and wi-fi in public government areas, related to accessibility or any other Title II application.

http://www.electrosmogprevention.org/ada-accommodations-for-rf-exposures/ada-for-es-to-avoid-small-cells-and-wifi/

- One hundred and thirty five **Chilean doctors** have written an open letter to the Minister of Health, calling for a halt on the rollout of 5G technology until it can be demonstrated that it doesn't harm human health or the environment. https://uxtr.org/wp-content/uploads/2020/10/Carta_Abierta_Dr._Enrique_Paris_UXTR_VersionFinal_.pdf ( in Spanish)

**Reports of Injury**

- **Sacramento** children and adults injured: https://www.facebook.com/EHTrust/videos/358490488124924/

- Sacramento **property value** risk: https://sacramento.cbslocal.com/video/4113246-cbs13-investigates-could-a-new-cell-tower-hurt-you-financially/
- **Geneva** citizens injured: https://www.globalresearch.ca/swiss-magazine-reports-first-5g-injuries-geneva/568423

https://www.altermedicine.org/sideeffects-of-living-near-5g-towers-in-geneva-switzerland-testimonial/

- Idahoans for Safe Technology have built a registry of harm for those experiencing heart trouble after small cells went in: idahoansforsafetechnology.org/could-cell-towers-be-the-cause-of-your-rapid-heart-rate-a-fib-a-flutter-or-tachycardia/

**Detrimental Flight Impacts**

- U.S. airlines warn 5G wireless could wreak **havoc with flights**: news.yahoo.com/u-airlines-warn-5g-wireless-182757439.html
- **Canada limits** 5G to protect air travel: www.forbes.com/sites/dianafurchtgott-roth/2021/11/21/canada-limits-5g-to-protect-air-travel/?sh=61aea5ff7247
- Boeing and Airbus warn **US over 5G safety concerns**: https://www.bbc.co.uk/news/business-59737194
- Concerns about 5G wireless technology affect both f**ixed-wing and vertical-lift business aircraft operations**: www.propilotmag.com/5gwireless/
- **Professional Pilot Magazine** reports it is not just the altimeters that need protecting, but the pilots and crew too from cognitive impairment and other biological effects of radiofrequency radiation: www.propilotmag.com/5g/

**The Digital Divide**

Neither 5G nor any wireless service will close the digital divide. What is needed is hard-wired technology to every home and affordable rates plus devices and training for the underserved. Thank you to Environmental Health Trust for providing the following:

- Theodora Scarato Montgomery County needs affordable broadband, not 5G cell towers, to bridge the digital divide, Montgomery Sentinel, July 10, 2021

- Exploring Racial Equity and Social Justice Impacts of Cell Towers and ZTA 19-07 - Tech Wise - Montgomery County, MD
- Myth Fact on 5G TESTIMONY OF ANGELA SIEFER Executive Director of the National Digital Inclusion Alliance to the United States House of Representatives
- Verizon's 5G Promise Rings Hollow in Sacramento and Next Generation Wireless That Works for All of Us, by the Communications Workers of America
- Sacramento Bee, To end digital discrimination, California can't let big telecom companies call the shots, July 28, 2021
- CNET, The broadband gap's dirty secret: Redlining still exists in digital form, June 28, 2021
- US Government Accountability Office 2020 Report "FCC Needs Comprehensive Strategic Planning to Guide Its Efforts:" "The experts GAO convened also stated that **5G deployment would likely exacerbate** disparities in access to telecommunications services, known as the "digital divide." (page 3)June 2020 Report: "FCC Lacks Comprehensive Strategic Planning to Guide Spectrum Policy for 5G Deployment"
- "The drive to widen the digital divide," published in California Matters by Larry Ortega, founder of Community Union Inc., a nonprofit corporation that trains consumers living in the digital divide.

**Additional Resources**

- The **Environmental Health Trust** continually updates information on 5G, and ordinances being put in place by proactive communities: http://ehtrust.org/?s=5G+

*https://ehtrust.org/usa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways/?fbclid=IwAR0irnkuNUOpOl6VPMK-DDvvCyVrOvG8quimzQcY7nJSsOZ9sdqqnJNEqDw*

- **Building Biologist Oram Miller** has written a comprehensive 5G article that he periodically updates, *5G Fifth Generation Cellular Technology*: createhealthyhomes.com/education/5g/?pdf=1084

- The Institute for Local Self-Reliance provides a Community Network Map of **communities investing in their own Internet infrastructure** to promote economic prosperity and improve quality of life: https://muninetworks.org/communitymap
- **Montgomery County, Maryland,** USA, put together a presentation that provides guidance on what local municipalities can do to offer some protections for their citizens from 5G pole installations in their community: *https://docs.google.com/presentation/d/1AIuFrpBNIKrkAXFNwGO-b5r2ZL_RM-y2VHGCAmHEE5s/edit?ts=58b35a8a#slide=id.p*
- This **website** offers insights on what 5G is: *http://whatis5g.info/*
- San Francisco City Planner Omar Masry wrote this very helpful article for those in California seeking to improve **wireless facility zoning ordinances** -- this also may help educate/inform other local governments on how to manage these installations and keep up with the latest changes in law: https://medium.com/@omarmasry/a-brave-new-world-for-cell-antennas-in-california-39d864a876d4
- The **Huffington Post** discusses how **AT&T** has been manipulating the accounting of its mostly copper-based, state-based, utility networks to force-march customers into wireless service for the home instead of maintaining and upgrading the networks to fiber for residential and business customers—because it makes them more money: http://www.huffingtonpost.com/entry/59adac5de4b0bef3378cda83
- Citizens in **Huntington, NY** demonstrate what the 5G exposures are in their community:

*Resident's home: https://www.youtube.com/watch?v=shOhGH01Z2Y*

*Local playground: https://www.youtube.com/watch?v=TqLgE8r7bnI*

*Huntington: https://www.youtube.com/watch?v=082sA_w5U20*

*Cold Spring Harbor: https://www.youtube.com/watch?v=VJdr93RHcC8*

*Their Facebook page. https://www.facebook.com/groups/151072495506584/*

- Cece Doucette presented "***5G Wireless: Considerations for Public Health and Municipal Installations***" to a four-town Selectman committee in Massachusetts. These towns are now actively looking to put by-laws in place to protect the public. The follow-up

document contains links to all of the resources referenced in the presentation. Please feel free to share with your own towns: https://www.youtube.com/watch?v=OYzUyWPHc20&feature=youtu.be

- https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDozNmFlN2Y4MjFmYjJlOTVj
- Safe Living Technologies now offers a **5G radiation detection meter** that measures 24-40 GHz: safelivingtechnologies.com/products/safe-and-sound-pro-mmwave-meter.html

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## Question 13.k. Effects of technologies

# Utility “Smart” Meters

**Engineer expert Robert Palma** gives a good 5-min. testimony to the Iowa legislature on why smart meters are dangerous and why a no-fee opt-out is imperative for current installations:

- vimeo.com/559442439

"Smart" meters are the **gas, electric, water, propane and solar utility meters** being put on homes to replace the old analog meters ("smart" being a marketing term used by industry to psychologically steer consumers to adopt these devices -- inferring "smart" is a good choice when it is not).

- If the gas, electric and water meter(s) on your home no longer have the little dials that spin around but now have a digital display, you have a smart meter -- and the industry now has some newer units made to look like the older ones with dials, but that also emit microwave radiation using digital technology. If there is an **FCC ID number** somewhere on the face of the meter, then the device is transmitting data using wireless radiation.
- Some communities converted to digital meters so they no longer have to pay workers to walk from house to house doing monthly meter readings. They can have an employee do a drive-by instead, aiming their data reader from the street at your meter to track your usage. In communities that have gone on **the "smart grid"**, the drive-by readings are eliminated and the data is sent via wireless radiation to the utility company. From a business model, this makes sense for cost saves.
- As cost-saving as this is, the **smart meters emit high amounts of wi-fi radiation 24/7 and it goes through the walls and into our homes, schools and businesses.** Where housing units are close together, multitudes of meters are mounted in a bank where radiation exposure compounds.
- In some systems, the digital data collected from the "smart" meters travels from house to house in a grid, compounding as it goes so that houses further down the line are getting radiation exposure exponentially. The data goes to a transfer station which sends it to a third-party analyst who may **sell your usage data to smart appliance and other**

manufacturers. Some see this as an invasion of privacy. Since the data is sent via wireless signals, there are **no secure wires to protect your data and it is therefore far easier to hack into**. Criminals could identify your patterns and know when the way is clear to break into your homes and businesses. Further, from a **national security** standpoint, undesirables could readily shut down the entire grid leaving us vulnerable and stranded in the dark without water, gas or electricity.

- **Our bodies need a break** from the wi-fi radiation we are constantly bathed in. If the smart meters and other devices are emitting radiation 24/7, it can be harmful to our cells, disrupt our circadian rhythm, and impair the required cell repair and regeneration while we sleep that otherwise keeps us healthy. The result is a toxic build-up that shows up sooner rather than later in some as behavioral problems that look like **ADD or Autism, sleep disruption, fatigue, headaches, dizziness, nausea, nosebleeds, skin rashes/flushing and more**. The long-term accumulative effects may include **cancers, infertility, genotoxicity, neurotoxicity and more**. See the Science page.
- Please see the brochure **Are-They-Smart-for-You-v3.pdf** for a good visual of how the smart grid works and additional information.
- See **Scientists' Statement** on RF/EMF & Smart Meters Harm: The effects of pulsed radiofrequency and electromagnetic radiation emissions of smart meters; especially as it pertains to those adversely affected, as prepared for a Pennsylvania Supreme Court case: d3n8a8pro7vhmx.cloudfront.net/yesmaam/pages/9103/attachments/original/1638544479/Scientists-Statement.pdf?1638544479
- The **largest U.S. water utility indefinitely deferred their AMI project** after citizens provided the facts: https://www.wsscwater.com/AMI
- **Fire incidence increased** significantly in many states after smart meters were installed. See the expert 2021 presentation, The Discovery and Science of Smart Meter Fires: https://alpaca-chinchilla-x6xf.squarespace.com/s/2021-The-Discovery-and-Science-of-Smart-Meter-Fires-print.pdf
- Thank you to StopSmartMetersBC.com for compiling a list of Canadian and U.S. areas with **opt-outs**: https://stopsmartmetersbc.com/metersgrid/smart-meter-opt-out-options-and-fees/

- This **one-minute video** illustrates how utility meters, in this case **water meters**, pulse radiation: https://www.youtube.com/watch?v=VYVrHXmAxp0
- This **three-minute video** prepared for the Massachusetts Department of Public Utilities demonstrates how electric meters pulse radiation thousands of times per day: www.youtube.com/watch?v=I-fEjgvtJto
- New Hampshire issued a groundbreaking legislative commission report documenting wireless risks. **Dr. Kent Chamberlin** served on that commission, he is the Chair and Professor Emeritus of the University of New Hampshire's Department of Electrical and Computer Engineering. Dr. Chamberlin and Cece Doucette, Director of Massachusetts for Safe Technology, share the scientific literature on biological effects of radiofrequency radiation as it pertains to smart meters used for grid modernization and electric vehicles: www.youtube.com/watch?v=5_w9KweALQY&t=388s
    - Dr. Chamberlin's slides: https://alpaca-chinchilla-x6xf.square...
    - Cece Doucette's slides: https://alpaca-chinchilla-x6xf.square...
- **Chattanooga, TN** has become a national leader in fiber-to-the-premises, and has hard-wired the smart meters to the premises which eliminates the need to have radiating antennas; FTTP has also closed the digital divide: qz.com/streaming-services-antenna-state-subscriptions-report-1851291285
- **Dr. Alexia McKnight** was deeply harmed by a smart meter on her home. See her TedX Talk: www.youtube.com/watch?v=2-ua-e-rY5M
  Dr. McKnight and Cece Doucette presented the facts and solutions as invited speakers for a health and wellness **professional development day** at Dr. McKnight's children's schools: www.youtube.com/watch?v=1jlyuRcKI5w&list=PLMAz9ZRXjYmpnVJ1BLF3Yx_-jnO4nY9tK&index=23
- The following article illustrates how **communities are tuning in** to this issue. Out in the Berkshires in Massachusetts, residents, including a doctor, raised the health issue with the digital water meters and their State Representative was listening: New water meters spark radiation fears in Housatonic

- After citizens educated their neighbors and public servants on the risks, the Town of **Wayland, Massachusetts** in 2018 Did Not Pass Article 24 for Advanced Water Meter Reading Infrastructure: https://www.wayland.ma.us/town-clerk/files/april-2-2018-annual-town-meeting-results
- The utility company ENMAX has a program in place for ratepayers to **send in their own readings** from their electric and gas meters; this can be a good model for other communities where customers wish to opt out of digital meters: https://www.enmax.com/services/meter-services/meter-reading/submit-a-meter-reading
- Smart meters and faulty wiring can cause **dirty electricity** in the extremely low frequency (ELF) range. The major cause of ELF magnetic fields are wiring violations of the electric code. There are 3 wires for electricity: hot, neutral, and ground. The neutral and ground should only be connected where the electricity enters a building. This means the current in the hot and neutral wires are the same but flowing in an opposite direction. If this is the case there is zero ELF magnetic fields (+1 ampere, plus -1 ampere equals zero amperes and thus zero ELF magnetic fields).
- An all too common problem (and violation of the National Electric Code [NEC]) is the **neutral and ground wires are connected together** within a building. This means that an ELF magnetic fields will exist because the current in the hot and neutral wires are no longer equal. Dirty electricity can cause significant health issues and wear and tear on appliances.
- See **Virginians for Safe Technology** for information including industry myths vs. facts sheet, and funding paid to politicians from their energy company.
- **Rhode Islanders for Safe Technology** created this brochure to hand out in the community, including farmers markets: www.ma4safetech.org/s/RI4SafeTech-Smart-Meter-BROCHURE-2024.pdf
- **Environmental Health Sciences** offers Smart Meter Health Risks: RF Radiation Exposure and Fire resources: ehsciences.org/smart-meter-health-risks-rf-radiation-exposure-and-fire/#SMHR-how-often-transmit




**Solutions**

- Where smart meters are **optional**: http://www.electrosmogprevention.org/stop-ca-smart-meter-news/where-smart-meters-are-optional/
- A **Roadmap to Challenging Smart and Digital Meter Mandates**: https://childrenshealthdefense.org/wp-content/uploads/8.5x11-Roadmap-to-Challenging-Smart-Digital-Meter-Mandates.pdf
- See the National Conference of State Legislatures webpage for a **map of the U.S.** showing various policies on utility meters: https://www.ncsl.org/energy/smart-meter-opt-out-policies.
- In **Massachusetts**, **National Grid** offers an opt-out from their digital **electrical meters**, at a cost: www.nationalgridus.com/MA-Home/Metering/Automated-Meter-Reading
- **National Grid** also offers **Massachusetts** customers an opt-out from **AMR gas meters**:
  AMR **Decline** Application:
  dyzz9obi78pm5.cloudfront.net/app/image/id/5df1092eec161c565bfcd912/n/lig-decline-amr-meter-app.pdf
  **Remove** AMR Meter Application:
  dyzz9obi78pm5.cloudfront.net/app/image/id/5df109308e121c8f7441b54e/n/lig-remove-amr-meter-app.pdf
- For the Massachusetts **Eversource** opt-out, call 1-800-592-2000:
  www.eversource.com/content/residential/account-billing/smart-meters/smart-meter-opt-out
- This is the best example to follow, **State of Vermont's Department no-fee opt-out law**:
  legislature.vermont.gov/statutes/section/30/077/02811
  https://publicservice.vermont.gov/electric/smart_grid
- **Pacific Gas & Electric (PG&E) in California** offers an analog meter for an opt-out with a one-time installation fee and low monthly reader fees that sunset after three years:
  www.pge.com/en/save-energy-and-money/energy-saving-programs/smartmeter/opt-out-program.html#accordion-a5468b3e7b-item-1b8ed369f7

- **Refurbished analog meters** are available for purchase: https://stopsmartmeters.org/2011/10/09/buy-your-analog-meter-here/
- People are already getting sick, and some municipalities have taken action. The State of **Hawaii** has arranged for an "opt-in" if a smart meter is desired, rather than blanketing the entire society: http://mauiindependent.org/smart-meter-victory-maui-utility-consumers/
- **Massachusetts** has two bills to allow ratepayers to choose an analog meter without being penalized by a fee. See all six sponsored MA bills below, and consider sharing these with your local, state and federal public servants as most have only been told of the financial benefits of wireless technology without being informed of the biological radiation risks: sites.google.com/site/understandingemfs/massachusetts-emf-bills-2025-26?authuser=0
- **Smart Meter Education Network** out of **Michigan** aims to support the fight against smart meters for the protection of one's health, privacy and the environment. This group offers how-to information: http://www.smartmetereducationnetwork.com/
- Consider hosting a screening of the film **Generation Zapped** in your community to educate your friends, family and public servants: http://generationzapped.com/
- Dr. Tim Schoechle, Ph.D. presents *Getting Smarter About the "Smart Grid": The **Technological Alternative** Needed for a Successful Energy Economy*, a one-hour talk and Q&A given at Creating Safe Havens in a Toxic, Electromagnetic World, a conference hosted by the **International Institute for Building-Biology & Ecology**:

*https://www.youtube.com/watch?v=DRHDAdbqWUc*

- Dr. Darren Schmidt, Chiropractor, explains **how "smart" meters affect your body**:

*https://www.youtube.com/watch?v=z2Mt00xY8eU&t=1821s#t=4.967528*

- A group of **doctors in Eugene, Oregon** prepared the following document for their water and electric board: http://www.national-toxic-encephalopathy-foundation.org/wp-content/uploads/2012/01/Biological_and_Health_Effects_of_Microwave_Radio_Frequency_Transmissions.pdf

- **Hawaiian Electric** offers ratepayers information on mitigating **dirty electricity**:

www.hawaiianelectric.com/electrical-services/power-quality/publications

- Several dedicated groups have developed additional websites to help us understand the impact of utility smart meters:
    - Halt "Smart" Meters in **Massachusetts**: http://haltmasmartmeters.org/
    - **Smart Grid Awareness** has a great archive of research, as well as insight on safety, fires and privacy: http://smartgridawareness.org/
    - Here is a **master list of articles** from Smart Grid Awareness that is searchable:

*http://smartgridawareness.org/about/listing-of-website-articles-with-links/*

**Lawsuits**

- Stopsmartmeters.org lists some lawsuits that have been won, and others that lost but offer lessons learned:

*https://stopsmartmeters.org/smart-meter-lawsuits/*

**Addressing Controversy with Research**

- **Dr. Federica Lamech**, MBBS, authored *Self-Reporting of Symptom Development from Exposure to Wireless Smart Meters' Radiofrequency Fields in Victoria*. It is a well documented 92 case series that is scientifically valid. It clearly demonstrates adverse health effects in the human population from smart meter emissions. This was endorsed by the **American Academy of Environmental Medicine**: https://www.emfacts.com/2013/11/wireless-smart-meter-case-studies-in-victoria-australia/
    - This article addresses the **no-credible-evidence controversy**: http://smartgridawareness.org/2014/02/27/smart-meter-no-credible-evidence-controversy/
    - Dr. David Carpenter wrote the following rebuttal article endorsed by **50 physicians and EMR experts**: https://maisonsaine.ca/sante-et-securite/electrosmog/smart-meters-correcting-gross-misinformation.html

    - Retired U.S. Government physicist **Ron Powell, Ph.D.**, from Maryland, has authored several papers to help consumers and public agencies understand the implications of smart meters including illness symptoms, questions to ask your energy company, FCC limits, a ranking of meter types and more: http://www.scribd.com/doc/291507610/Documents-on-Wireless-Technology-and-Health-by-Ronald-M-Powell-Ph-D

- **Jerry Flynn** served in the Canadian military for 26 years specializing in wireless radio systems, radiowarfare and electronic warfare. He provides a history of military knowledge of harm from electromagnetic radiation, and why he is gravely concerned for the rollout of smart utility meters and the rest of our wireless devices: https://www.youtube.com/watch?v=c-F3nf47kAs
- Grassroots Environmental Education offers a **generic opt-out letter** to send to utility companies and local municipalities: http://grassrootsinfo.org/pdf/smartmeteroptout.pdf
- The following article explains why digital meters with the wireless signals turned off can still a biological hazard due to **dirty electricity**, and why pure analog meters are the best solution: http://www.smartmetereducationnetwork.com/dirty-electricity-and-smart-meters.php

**Solar Panels & Meters**

- In the U.S., most companies installing solar panel energy systems also install a solar smart meter to capture data. The Itron Solar Meter is one such device and residents, landlords and business owners would be wise to ensure they are installed with **maximum distance** in mind, avoiding heavily used common areas or sleeping areas: https://www.itron.com/na/solutions/product-catalog/solar-meter
- CreatingHealthHomes.com offers the following article to better understand **Solar Panels and EMFs**: http://www.createhealthyhomes.com/solar_panels.php
- **Jeromy Johnson** of EMF Analysis offers these insights: https://www.emfanalysis.com/wp-content/uploads/2017/10/Dark-Side-of-Solar-Draft.pdf

- **Bill Bathgate** may be able to offer additional support: bill.bathgate@defiltersllc.com, www.defiltersllc.com
- R Blank of Shield Your Body provided a webinar with Building Biologist Cathy Cooke, **Solar Power and EMF Health**: https://www.youtube.com/watch?v=nXMy7axpJLA
- Good short article on **solar farm fires**: https://www.insurancebusinessmag.com/us/risk-management/news/fire-a-major-hidden-danger-for-solar-farms-419868.aspx
- The backup articles: https://www.firetrace.com/fire-protection-blog/how-often-do-solar-farm-fires-occur https://www.firetrace.com/fire-protection-blog/what-happens-when-a-solar-farm-catches-on-fire https://www.energy.gov/eere/solar/articles/assessing-fire-risks-photovoltaic-systems-and-developing-safety-concepts-risk

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## Question 18. Additional Information

# Legal Issues

**For Legal Assistance**

- Unfortunately, often it requires an attorney fluent in land use and telecom laws to stop a cell tower before it goes up. See resources and step-by-step guides at Stop5G™ Community Empowerment Consulting. They also have resources for utility smart meter mandates: www.stop5g.org/

**Insurance Industries and Manufacturers**

Insurance companies recognize EMFs as an emerging risk and are excluding coverage.

- In 2015 **Lloyd's of London** excluded liability for injuries from EMFs. See page 8, exclusion 32 on Electromagnetic fields: https://www.scribd.com/document/261610831/Insurance-AE-CFC-Underwriting-Limited-Lloyds-Latest-Version-February-7th-2015
- **AM Best**, an insurance rating company, warns about financial risks for emerging technologies, including wireless radiation: http://www.ambest.com/directories/bestconnect/EmergingRisks.pdf
- Insurer **Swiss Re** issued a new risk assessment on 5G in 2019, summarized here: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo3ODQzZjVmMDRkZWI1ZjQ0
- Engineers at Michigan Technological University indicate **siting cell towers needs careful planning** to avoid legal liability: https://www.sciencedaily.com/releases/2019/12/191203162553.htm
- The following link provides a **summary of legal implications** for the insurance industry and manufacturers: https://groups.google.com/forum/m/#!topic/galisteo-wireless/VOqzrsx3OgY
- **Dr. Devra Davis** explains the legal ramifications in a lecture to Australia's New South Wales University Law School in November 2015. She is joined by renowned neurosurgeon **Dr. Charlie Teo** for the Question and Answer segment where he calls for

National Cell Phone Right To Know Legislation: https://www.youtube.com/watch?v=IzfoGy917yA

- See also Dr. Davis' **Environmental Health Trust website** for coverage of additional legal actions: https://ehtrust.org/?s=legal
- TalkMarkets provided a market analysis in the 2017 article, "**A Coming Storm for Wireless?**": http://www.talkmarkets.com/content/stocks--equities/a-coming-storm-for-wireless?post=143501
- Leading attorneys specializing in wireless radiation gave a webinar as part of the 2021 **TechSafe Schools** project launch, and provide an overview of legal risks as well as specific steps to take to protect one's school: https://www.techsafeschools.org/webinars
- **Former FCC Attorney: How the FCC Fails to Follow Environmental Laws and Fails the Public:** See interview and article: ehtrust.org/former-fcc-attorney-how-the-fcc-fails-to-follow-environmental-laws-and-fails-the-public/

**Lawsuits**

- **Stop5G Community Empowerment Consulting** empowers local communities and safe technology organizations across the U.S. to effectively oppose proposed cell tower and small cell installations in their neighborhoods: www.stop5g.org/community-empowerment-consulting
- **Attorney Andrew Campanelli** used to work for the telecom industry until he realized the harm they were doing. He knows telecom law and the industry playbook well, and now represents citizen and municipal clients: campanellipc.com/attorneys/andrew-j-campanelli/

There is an **increasing number of legal cases**:

- In 2020 a Verizon cell tower made 17 Pittsfield, MA children and adults ill with microwave sickness. They turned to the MA DPH for help, and the DPH abandoned them. After two years of citizens, doctors, scientists, engineers and legislators educating Pittsfield public servants on the biological effects of wireless radiation, in April 2022 the **Pittsfield Board of Health** became the first in the nation to issue an **Emergency Order** of discontinuance and abatement to Verizon to turn off the cell tower. Verizon went to the

courts for an injunction, and Mayor Tyer and Solicitor Pagnotta refused to give their own Board of Health the funding to take this to court to bring these families safely home. The citizens have had to sue. The **Massachusetts Association of Health Boards** filed an **amicus brief** in the **civil suit against Pittsfield** in support of the injured citizens. The court deferred to the FCC; the citizens filed an **appeal** and the court once again deferred to the FCC. The **Massachusetts Supreme Judicial Court** has now taken up the case in 2025 to potentially reinstate the Board of Health's powers.

- **Cellphone industry product liability lawsuit for brain tumors:** www.saferemr.com/2014/08/major-breakthrough-in-cellphone.html
- **Victory in Flower Hill, NY:** Community wins wireless company's federal lawsuit after denying permits for 18 "small cell" wireless antennas based on **no gap in coverage**: ehtrust.org/flowerhillny/
- American's for Responsible Technology (ART) and the BroadBand International Legal Action Network (BBILAN) are **suing the U.S. Department of Health and Human Services and the Food and Drug Administration** for having never done a formal review of the EMF science before reaffirming the FCC's public radiation limits. Webinar will be posted here: www.bbilan.org/
- The **Supreme Court of Pennsylvania** is reviewing the legality of making utility "smart" meters mandatory: childrenshealthdefense.org/defender/pennsylvania-supreme-court-smart-meter-mandate-case-chd/
- A **Havana Syndrome diplomat** injured by RF/EMF is suing the government for disability discrimination: wearetheevidence.org/diplomat-injured-by-rf-sue-government-for-disability-discrimination/
  See the Military Experts page for additional insights on the Moscow Signals experiment and Havana Syndrome.
- German court finds **property owners can be liable for health impacts** from base station antennas on their property:

www.emfacts.com/2022/07/german-court-finds-property-owners-can-be-liable-for-health-impacts-from-base-station-antennas-on-their-property/

- Utility groups and others are petitioning the FCC to delay opening the 6GHz band to block **6G consumer electronics that will threaten public safety**: www.activistpost.com/2021/12/utility-groups-others-petition-fcc-to-delay-opening-6ghz-band-to-block-6g-consumer-electronics-that-will-threaten-public-safety.html
- **Profs. Tell DC Circ. SpaceX Launches Need Enviro Review**
- JML Law Wins Appeal in **'Unprecedented' Disability Case Against LAUSD** for Failure to Accommodate Teacher With Electromagnetic Hypersensitivity: Brown v. LAUSD establishes that symptoms of 'electromagnetic hypersensitivity' a.k.a. 'Microwave Sickness' could be deemed a 'physical disability' under the FEHA: https://www.accesswire.com/viewarticle.aspx?id=637661&token=hzivngfkuma2h2xz6rhu
- A **South Lake Tahoe, California** property owner has filed a landmark federal lawsuit in the U.S. District Court in Sacramento against the Tahoe Regional Planning Agency (TRPA), Verizon Wireless, and the Tahoe Prosperity Center, Inc. to prevent the looming proliferation of 5G-enabled “small cell” antennas and macro cell towers throughout the Tahoe region until rigorous environmental reviews of the proposed infrastructure have been completed by the TRPA as mandated by its own rules. This lawsuit also addresses **Americans with Disabilities Act (ADA) and Fair Housing Amendments Act (FHAA)** for reasonable accommodation from radiation emissions: https://ehtrust.org/lake-tahoe-federal-lawsuit-5g-health-and-environmental-effects-press-conference/
- **Children's Health Defense ("CHD")** filed a lawsuit against the Federal Communications Commission ("FCC"), challenging the amendment to the "Over-the-Air Reception Devices" rule ("**OTARD**") that was adopted on 1/7/2021. The case was filed in the US Court of Appeals of the DC Circuit. The amendment enables installation of harmful radiation transmitting antennas on homes, thus pulsing radiation at neighbors, and eliminates all state and local zoning authority. See lawsuit press release: https://www.prnewswire.com/news-releases/chds-new-case-challenges-the-fccs-wireless-wild-west-rule-301239263.html

- Listen to the December 7, 2021 **OTARD case oral arguments** here: youtu.be/ZfSwOxuz8JY?t=1838
- **Dafna Tachover, Esq.**, provides a 15 minute overview of the case in this interview with Arizonans for Safe Technology: https://www.youtube.com/watch?v=vbHl8W6CAvw
- The **BroadbandNow** website allows you to enter a zip code and see what providers are in your town. Those offering **fixed wireless** may be looking to put toxic cell antennas on private property: https://broadbandnow.com/
- **The Environmental Health Trust** and a coalition of other commentators in 2020 also filed a court appeal **challenging the FCC's order** terminating its evaluation of the adequacy of FCC RF radiation limits. Donations are gratefully accepted to help fund their efforts:
    - Listen to **oral arguments** in court, see filings, and EHT press conference: https://ehtrust.org/judge-wilkins-to-the-fcc-i-am-inclined-to-rule-against-you-video-court-transcript-and-press-conference-replay/
    - **Robert F. Kennedy, Jr.**'s Children's Health Defense also submitted an historic case in 2020 against the FCC for wireless harms. Donations are gratefully accepted to help fund their efforts.
    - The **two above lawsuits were combined** in the U.S. Court of Appeals in the District of Columbia, and the following **amicus briefs** were filed too:
    - Amicus of NRDC: Natural Resources Defense Council
    - Amicus of Attorney Joe Sandri including declaration of Dr. Linda Birnbaum, former Director of the National Institute of Environmental Health Sciences
    - Amicus of Catherine Kleiber
    - Amicus of the Building Biology Institute
    - The D.C. Circuit Court ruled the **FCC was arbitrary and capricious** in their decision to not update their 1996 public radiation exposure limits and clarified no proper safety assessment has ever been done by the FCC. See the ruling and press

conferences here: https://us20.campaign-archive.com/?u=62f2cbcbd8eeef4c8fe3da281&id=b756d5829c

- The **IRREGULATORS** have successfully appealed an FCC decision and exposed one of the largest accounting scandals in American history by the FCC and industry. This paves the way for our states to recoup the finances customers already paid to bring safe, fast, reliable hard-wired technology to the premises: http://irregulators.org/?fbclid=IwAR3ujLQ7sEcLtvixd3QfmhlTsOfTY-iqZXuy1fP8PqiU28wx1utfz_7H440
    - See specific information for **Massachusetts**: http://irregulators.org/maverizonfiberfailureresources/
    - See a **state-by-state breakdown of overcharges**: http://irregulators.org/overchargedamerica/
- **The FCC was sued** by 68+ local governments in the **Ninth Circuit Court** in Pasadena, California over preemption of local control which streamlines the rollout of 5G. Below is the court hearing on case 18-72689 from February 10, 2020 in which two lawsuits were consolidated into one:

Part 1: https://www.ca9.uscourts.gov/media/view_video.php?pk_vid=0000017033

Part 2: https://www.ca9.uscourts.gov/media/view_video.php?pk_vid=0000017034

The courts found in favor of the FCC in August 2020.

- Later in August 2020 **Boston, Seattle** and other cities also filed a case, which the FCC got moved from the DC Circuit Court to the Ninth Circuit Court: https://alpaca-chinchilla-x6xf.squarespace.com/s/CITY-OF-BOSTON-MA-et-al-v-FCC-petition_No-20-1301_08102020.pdf
- **Apple was sued** in a class-action lawsuit for iPhone exposures that exceed FCC limits when used as advertised: https://www.law360.com/articles/1241627/alsup-laments-dumb-fcc-in-iphone-radiation-suit

- The above **Apple** lawsuit was dismissed, and in 2023 consumers are asking the **U.S. Supreme Court** to rule: https://news.bloomberglaw.com/litigation/iphone-users-seek-scotus-review-of-radiation-preemption-ruling
- Experienced telecom lawyer **Andrew Campanelli** indicates the industry provides our towns with fraudulent information to lead them to believe they have no recourse. He has taken more than 7,000 individual and municipal cases and won 75-80%. See this one-hour interview to learn what is legal and what questions to ask to protect our towns: https://www.youtube.com/watch?v=UtT6gVH584s&feature=emb_logo
- This interview with Mr. Campanelli was arranged by **Pensacola, FL** residents and offers strategies for organizing in one's town: https://www.youtube.com/watch?v=PtFbRAXvv1U
- **Mark Pollock, Esq**., is also an experienced environmental and 5G litigator in California, as is **Harry Lehmann, Esq**. Thank you to Paul McGavin for this interview with Mr. Pollock discussing strategies to oppose 4G/5G small cells in residential areas: https://www.youtube.com/watch?time_continue=83&v=csnxTOcF3A8&feature=emb_logo
- 5G Free California held a **legal strategies webinar** with attorneys Andrew Campanelli, Dafna Tachover, Julian Gresser, Raymond Broomhall and Scott McCollough: https://5gfreecalifornia.org/2020/04/07/replay-and-notes-from-4-2-2020-zoom-meeting/
- Family sues telecoms after **Louisiana pastor dies of brain cancer**: https://www.prnewswire.com/news-releases/lundy-lundy-soileau--south-llp-in-new-attack-on-telecom-secrecy-family-of-pastor-alleges-cell-phone-radiation-link-to-his-deadly-brain-cancer-301265388.html
- A **Georgia resident** is suing Verizon over 5G poles, citing property devaluation and health risks: https://www.stop5gsandysprings.com/news.html
- The French law firm Beaubourg avocats represented by attorney Elias Bourran filed a **class action suit against the Chinese smartphone manufacturer Xiaomi** with the Paris Public Prosecutor's Office on Friday, July 17, 2020.

- This class action, which brings together some sixty plaintiffs, follows the criminal complaint filed on April 15, 2019, by the Phonegate Alert NGO and has since been monitored by the Public Health Unit of the Paris Public Prosecutor's Office. For attorney Elias Bourran who represents the plaintiffs:

"*By marketing non-compliant mobile phones, Xiaomi is accused of three offences: deception on the one hand, a deceptive commercial practice on the other hand and finally endangering the lives of others. The victims have joined together to file a complaint and are seeking, in addition to reimbursement of the telephone, damages and interest.*
https://www.phonegatealert.org/en/press-release-phonegate-60-plaintiffs-file-class-action-against-xiaomi

- As reported by We Are The Evidence, in January 2019 a **French court recognized electromagnetic-sensitivity** as an occupational disease: https://wearetheevidence.org/french-court-recognized-electromagnetic-sensitivity-as-an-occupational-disease/
- **French farmers** are suing the state over mystery cow deaths they blame on electromagnetic fields: https://www.telegraph.co.uk/news/2019/04/26/french-farmers-sue-state-mystery-cow-deaths-blame-electromagnetic/
- In December 2018 **Arthur Firstenberg** and others filed a lawsuit in Santa Fe, New Mexico contesting the constitutionality of the 1996 Telecommunications Act: https://www.emfconsultant.com/Long-awaited-Lawsuit.html
- **Montgomery County, Maryland,** is suing the FCC over unsafe 5G radiation: https://bethesdamagazine.com/bethesda-beat/government/county-to-sue-fcc-over-radio-frequency-emission-standards-for-small-cell-antennas/
- **India's Supreme Court** will hear petitions regarding mobile cell tower radiation in November 2018: https://www.thehindubusinessline.com/info-tech/sc-admits-pleas-against-mobile-tower-radiation/article24949596.ece
- **Australians** are organizing a 2018 nation-wide class action lawsuit against the telecom industry and their government: https://www.echo.net.au/2018/07/wilsons-creek-residents-take-class-action-telstra-tower/

- **Native American tribes** are suing to prevent the industry from circumventing permitting processes and forcing 5G infrastructure onto their lands: http://www.insidesources.com/more-tribes-signing-on-to-lawsuit-fighting-fcc-rule-change-for-5g-installation-permits/
- In 2017 an **Italian** employee was awarded monthly social security payments after a court found his brain tumor was caused by improper use of a company-issued cellphone. Of particular note, the **court's expert refused to accept into evidence studies that were funded by the telecom industry**: https://www.courthousenews.com/italian-court-finds-link-cell-phone-use-tumor/
- The Court of Appeal of Turin, Italy also confirmed in a full judgment published on 13 January 2020 (904/2019 of 3.12.2019 , Romeo v. INAIL) the decision of the Tribunal of Ivrea of 2017. Judge Fadda considers that the **worker's acoustic neuroma (benign tumour of the head) was indeed caused by the use of the mobile phone:** https://www.phonegatealert.org/en/the-court-of-appeal-of-turin-confirms-the-link-between-a-head-tumour-and-mobile-phone-use
- Several **other Italian cases** have been won too, as compiled by We Are the Evidence: https://wearetheevidence.org/fifth-court-in-italy-ruled-cell-phones-cause-cancer-and-determined-it-is-an-occupational-disease/?fbclid=IwAR2UVxNslNb0JLUxG5XnG32ixxBPcHkFpnika98o2MKX0C12sDymP_b5GAk
- In May 2015 **Berkeley, California** passed an historic right to know ordinance to ensure consumers know what is in the fine print in the legal section of their user manual:

  *"The City of Berkeley requires that you be provided the following notice:*

  *To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. This potential risk is greater for children.*

*Refer to the instructions in your phone or user manual for information about how to use your phone safely."*

- **CTIA-The Wireless Industry sued three times to block this legislation, and lost**. Note, the one judge who did not support the Berkeley ordinance is married to a telecom company employee working on 5G wireless infrastructure design. See the Rueter's article for a summary of the 2017 ruling: http://www.reuters.com/article/us-otc-speech-idUSKBN17Q262
- In December 2019 the **Supreme Court ruled to uphold the Berkeley Ordinance**, and other municipalities can now adopt this notification requirement too. Others are advised to use the exact wording above, as the industry is unlikely to sue if the exact wording is used: https://www.usnews.com/news/us/articles/2019-12-09/us-supreme-court-rejects-challenge-to-berkeley-cell-phone-law
- **Law Letter**: "Small Cell" Bill Will Shift Liability and Reasonably Result in Bankruptcy of California. Submitted as testimony on **SB.649**: https://ehtrust.org/law-letter-small-cell-bill-will-shift-liability-reasonably-result-bankruptcy-california-sb649/
- **Cell phone lawsuits**: http://www.saferemr.com/2014/08/major-breakthrough-in-cellphone.html
- A **Vermont couple won $1M in damages after a cell tower** was forced on to their property; they also won the industry's 2014 appeal: https://vtdigger.org/2014/03/12/jury-denies-velcos-bid-new-trial-radio-tower-case/
- StopSmartMeters.org has tracked **smart meter lawsuits**, some of which have been won: *https://stopsmartmeters.org/smart-meter-lawsuits/*
- **Canadian Class Action Lawsuit:** In 2015, a citizen of Quebec decided to bring a class action against a variety of manufacturers and users / providers of wireless technologies that expose the population to a variety of wireless technologies, despite the growing concern about security of these technologies and the possibility of adverse effects on human, animal and plant life. http://collectiveactionquebec.com/index.html

- **Canadian Class Action Smart Meter Lawsuit**: Filed in 2013: http://emfsafetynetwork.org/class-action-lawsuit-filed-against-bc-hydro-smart-meters/
- In 2015, a family with a son **diagnosed with electrohypersensitivity (EHS) filed a lawsuit in the U.S. District Court** seeking protection under the **Americans with Disabilities Act** from The **Fay School** in Southborough, Massachusetts (law firm Markham & Read): www.networkworld.com/article/2975945/mobile-wireless/massachusetts-boarding-school-fay-southborough-sued-over-wi-fi-sickness.html

For the first time in American courts, **non-thermal effects are recognized**: https://www.leagle.com/decision/infdco20171006q74

- In Australia, Premiere Compensation Lawyers are taking on **EMF cases on a no win – no fee basis**: https://premiercompensationlawyers.com.au/service/compensation-law/wifi/
- Attorney **Ray Broomhall** in Australia has come up with a legal strategy that he's been winning with to have cell towers, small cells, etc., removed. Others may wish to take a look to see if it will hold up elsewhere: https://emrlegaleducation.com/legal-education-documents/
- As reported in Microwave News, "**German Court Moves to Silence Relentless Critic of RF DNA Studies**; Alexander Lerchl's Unfounded Claims of Fabricated Data from Vienna Lab; 13-Year Campaign of Disinformation: https://microwavenews.com/news-center/german-court-moves-silence-critic-rf-dna-breaks
- In Europe, mobile phone giant Vodafone suffered a court defeat that could open door to wave of **legal challenges by landowners** that host 5G phone masts: https://www.thisismoney.co.uk/money/markets/article-8676853/5G-roll-fears-Vodafone-loses-court-fight.html

  Transcript

  Audio

  Agenda/Resources

**Disability**

- The United States Access Board's IEQ Indoor Environmental Quality Project indicates electromagnetic sensitivities may be considered disabilities under the **Americans with Disabilities Act (ADA)**: https://www.access-board.gov/research/completed-research/indoor-environmental-quality/introduction
- The Access Board recommends the following **accommodations**:

https://www.access-board.gov/research/completed-research/indoor-environmental-quality/recommendations-for-accommodations

- Job Accommodation Network (JAN) is one of several services provided by the U.S. Department of Labor's Office of Disability Employment Policy (ODEP). JAN offers the following **Accommodation Ideas for Electromagnetic Sensitivit**y:

https://askjan.org/disabilities/Electrical-Sensitivity.cfm

- A **Maine resident with cancer is suing Central Maine Power** over discriminatory smart meter fees: https://childrenshealthdefense.org/news/maine-resident-with-cancer-sues-central-maine-power-over-discriminatory-smart-meter-opt-out-fees/?itm_term=home#
- In August 2015, the first person in **France** was provided **disability compensation for electrohypersensitivity (EHS)**: http://www.buergerwelle.de:8080/helma/twoday/bwnews/stories/6753/
- In Grenoble, France, a judge **ordered the "smart" water meter be replaced** with a non-radiation-emitting meter at the home of a person who is electrosensitive in November 2016. Below is a roughly translated article: http://www.lepoint.fr/societe/compteur-d-eau-intelligent-une-electrosensible-obtient-son-retrait-09-12-2016-2089186_23.php
- In 2016, the High Court of Madrid found in favor of an EHS sufferer, an ex-employee of the telecommunications company Ericsson: http://mieuxprevenir.blogspot.co.uk/2016/08/spain-high-court-of-madrid-ruling.html

**Workers Compensation**

- "The **WHO/IARC report** has the potential of causing a major new wave of workers' compensation claims for cancer," reports WorkersCompensation.com:

http://www.workerscompensation.com/compnewsnetwork/workers-comp-blogwire/11059-the_next_wave_of_workers.html

- An Australian scientist was awarded workers compensation for Wi-Fi pain: http://www.news.com.au/technology/csiro-scientist-dr-david-mcdonald-wins-compensation-for-wifi-pain/news-story/0a2abc1814dca200d9e54b05f810c8f5

**Teachers Unions**

- Teachers unions are recognizing the risks of wi-fi in their work environment and are seeking protection: http://www.parentsforsafetechnology.org/teacher-unions-parent-teacher-organizations.html
- See also the attached position paper from Ontario English Catholic Teachers Association.

# Manufacturers

**Industry Whistle-Blower, Retired Microsoft Canada President Frank Clegg**

- Please see the following 10-minute public service announcement from an industry insider who did his research and discovered how harmful today's wireless technology is: https://www.youtube.com/watch?v=xSP2exnmJXg

**Former FCC Attorney: How the FCC Fails to Follow Environmental Laws and Fails the Public**

- See interview and article: ehtrust.org/former-fcc-attorney-how-the-fcc-fails-to-follow-environmental-laws-and-fails-the-public/

**T-Mobile Report in 2000 Shows Biological Effects**

- The ***Mobile Communications and Health*** study commissioned in 2000 by T-Mobil, the German parent company of T-Mobile, concluded there are many non-thermal biological effects well below public radiation exposure limit levels. They recommended specific precautionary measures should have been taken, but they were not and the industry continued to market hazardous products:

  *alpaca-chinchilla-x6xf.squarespace.com/s/T-Mobile-Study-2000Reduced.pdf*

**Telecom Union Warns its Workers**

- Communications Workers of America (CWA) warns that wireless radiation causes sterility, eye damage, central nervous system harm and more:

https://cwa-union.org/national-issues/health-and-safety/health-and-safety-fact-sheets/microwave-and-radio-frequency

**2018 Investigation by The Nation**

- An independent peer review of the U.S. National Toxicology Program's cell phone study announced their findings of clear evidence that cell phone radiation causes cancer—validating The Nation's special investigation:

*How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation*

The disinformation campaign—and massive radiation increase—behind the 5G rollout.

**Harvard's Captured Agency Report**

- In 2015, **Harvard University's** Norm Alster published "***Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates***". This further details what has happened with the FCC since telecom industry leaders like Tom Wheeler took the helm, and how they have been able to establish laws that protect industry profits over public health.
- In 2020, the **Washington Spectator** published a lengthy article, "Wireless Hazards" detailing industry's denial of the science: https://washingtonspectator.org/wireless-hazards/

**Prof. Tom Butler: Ethical Risk Analysis**

- This paper, released in February 2021, traces the history of the development of safety guidelines and why they haven't changed since the 1990s, and suggests "potentially unethical behaviour in a variety of institutional and organisational actors, the consequence of which is a significant risk to the health and wellbeing of adults and children." *Wireless Technologies and the Risk of Adverse Health Effects in Society: A Retrospective Ethical Risk Analysis of Health and Safety Guidelines* by Ireland's Professor Tom Butler: https://ehtrust.org/wp-content/uploads/Wireless-Technologies-Ethical-Risk-Analysis-Working-Paper-2021.pdf

**Industry Lobbying Influence**

- In 2023 the wireless industry influenced the introduction of many **federal bills** aimed at stripping local control from our municipalities and allowing installation of toxic cell towers anywhere without notice, consent or review by local boards. See expert forum with attorneys detailing this power grab:
  www.bbilan.org/blog/2023-08-16-wbi-town-hall-on-federal-bills
  **See action items** from Americans for Responsible Technology to contact your elected officials:
  www.americansforresponsibletech.org/stop3557

- ***Powerful Industry Lobby Group Behind 5g Roll-Out Despite Public Opposition and Health Dangers*** exposes one of the largest industry organizations in American that is paving the way to make 5G a reality: the American Legislative Exchange Council (ALEC).
- See Open Secrets' **Top Telecom Contributors to Political Campaigns**: https://www.opensecrets.org/industries/indus.php?ind=b09
- This article chronicles the **history of the IEEE** adopting the thermal-only effects for public radiation limits: https://www.healthandenvironment.org/docs/Gandhi_et_al_Printed_Version_2-14-121.pdf

**World Health Organization**

- The **Precautionary Principle,** as defined by a 2004 World Health Organization report, states, "In cases of serious or irreversible threats to the health of humans or ecosystems, acknowledged scientific uncertainty should not be used as a reason to postpone preventive measures." iris.who.int/handle/10665/346211
- In collaboration with industry, many of our federal agencies appear to be following what the **World Health Organization calls the Tobacco Control Playbook** to suppress evidence of harm in mainstream media, design studies of their own under conditions that deliberately show no harm, create doubt among the public, and continue to promote their toxic products.
- See especially, *Do tobacco companies take a responsible approach to education and information?* It contains a list of common tactics used.
- After the U.S. National Toxicology Program and Italy's Ramazzini Institute both published large studies concluding "clear evidence" of tumors (cancer) and DNA damage, the WHO initiated an ongoing project to assess potential health effects of exposure to radiofrequency electromagnetic fields in the general and working population: https://web.archive.org/web/20200514165110/https:/www.who.int/peh-emf/research/rf_ehc_page/en/index1.html

- Dr. Lennart Hardell documents **conflicts of interest with the telecom industry and an EMF group at the WHO in this 2021 paper:** https://www.wjgnet.com/2218-4333/full/v12/i6/393.htm

**The Fine Print That Few Have Read**

- Did you know the little product information pamphlets that come with wireless devices contain a passage about Exposure to Radio Frequency Energy? Some of the manufacturers have taken the passage out of the hard-copy materials, and imbedded it deeply within the device settings, usually under the Legal heading, where consumers are unlikely to see it. **Showthefineprint.org** has compiled these passages so you can easily see what your device warns.
- Attached at the bottom of this page are the guides for the iPad and the iPhone 4.
- If you own an **iPhone**, go to Settings, General, About, Legal, RF Exposure to see their warnings to keep the device away from your body else possibly exceed public radiation exposure limits.
- Basically, the manufacturers say they comply with FCC regulations. Science, however, has proven the current FCC regulations are 100s to 1,000s times too high to prevent the damage being done at the non-thermal level by mobile devices.
- In the fine print you will discover:
-
    - There are **multiple antennas in each device**, aiming radiation from different angles at your head and body. The brochures state:
    - The iPhone cellular antennas are located at the top and bottom edges of iPhone. The Wi-Fi and Bluetooth® antenna is located near the top of iPhone.
    - iPad contains radio transmitters and receivers. When on, iPad sends and receives radio frequency (RF) energy through its antenna. The Wi-Fi and Bluetooth® antennas are located behind the screen to the left of the Home button, and behind the Apple logo.

- The attached documents also tell us we shouldn't keep these devices near our bodies, or near other objects where the radiation bounces back into our bodies:
    - 
        - When carrying iPhone, keep it 1.5 cm (5/8 inch) or more away from your body to ensure exposure levels remain at or below the maximum levels. Avoid cases with metal parts.
        - The iPad brochure states: For optimal mobile device performance and to be sure that human exposure to RF energy does not exceed the FCC, IC, and European Union guidelines, always follow these instructions and precautions: Orient the device in portrait mode with the Home button at the bottom of the display, or in landscape mode with the cellular antenna (located under the black edge at the top of the device) away from your body or other objects.
        - In other words, **if you keep these devices on your body, the radiation you receive will exceed even the FCC's guidelines which we now know are already 100s to 1,000s of times too high**. The manufacturers are only required to adhere to current government guidelines, so they continue to introduce more devices to earn more revenue.
- The last line in this 2012 abstract from the NIH's PubMed database, on harm from laptops, is, "Laptop is paradoxically an improper site for the use of a LTC (laptop computer), which consequently should be renamed to not induce customers towards an improper use." So, that is what industry subsequently did. They renamed "laptops" to "tablets" but didn't inform the public that they are unsafe to use in the lap, and should be used on a table instead (and, might I add, best used in airplane mode and/or hard-wired). http://www.ncbi.nlm.nih.gov/pubmed/22315933
- In 2020, the IEEE reports a radiofrequency exposure test finds an **iPhone 11 Pro exceeds the FCC's limit**: the test, conducted by Penumbra, also highlights problems with the U.S. FCC’s wireless safety regulations, and other phones that have failed the test: https://spectrum.ieee.org/tech-talk/telecom/wireless/radio-frequency-exposure-test-iphone-11-pro-double-fcc-limits

**Congressional Hearing**

- This was addressed in a **2008 congressional hearing** where scientists presented findings of increased penetration of cell phone radiation in the brains of children:

*https://www.youtube.com/watch?v=h_YhKblPtOo*

- Here is the **FCC's response** to the scientist's claims:

*https://www.youtube.com/watch?v=UIEQdE-nO18*

**FCC Fails to Respond to Public Health Issues**

- In 2012 the **Government Accountability Office** instructed the FCC to "formally reassess the current RF energy exposure limit, including its effects on human health" and as of this writing in 2017, it has not been done. Our FCC chairman is from the telecom industry so we may not see changes at the national level in the near-term.
- On June 20, 2016 **FCC Chairman Tom Wheeler indicated the priority with 5G is to be first to market, regardless of public health or safety**. He states, "Unlike some countries, we do not believe we should spend the next couple of years studying what 5G should be, how it should operate, and how to allocate spectrum, based on those assumptions. Like the examples I gave earlier, the future has a way of inventing itself. Turning innovators loose is far preferable to expecting committees and regulators to define the future. We won't wait for the standards to be first developed in the sometimes arduous standards-setting process or in a government-led activity." See his six-page speech below:

*https://www.fcc.gov/document/remarks-chairman-wheeler-future-wireless*

- This **2017 FCC press release** indicates the goal is to remove 5G infrastructure barriers, despite public health hazards:

*http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0420/DOC-344486A1.pdf*

- Israeli and New York lawyer Dafna Tachover has developed electrohypersensitivity from wireless technology and in September 2016 testified before the **FCC's Disability Advisory Committee**. See her five-minute testimony here:

*https://www.youtube.com/watch?v=_qq0H63GLkU&feature=youtu.be*

- Click here to hear the history from Dr. George Carlo of how **industry was able to get this technology to market before it was properly tested** and how **research findings have been suppressed since**. You may also wish to read his book, "Cell Phones: Invisible Hazards in a Wireless Age (Avalon, 2001)".
- The **FCC has been sued** for ignoring 11,000 pages of evidence of harm entered into the public record. The 9th Circuit Court of Appeals in Washington, D.C. in August 2021 remanded it back to the FCC to account for long-term effects, harm to children, infertility, electrosensitivity and environmental impacts. There was no deadline set and the FCC has failed to respond:
  ehtrust.org/environmental-health-trust-et-al-v-fcc-key-documents/
- The above court order also tasks the FCC with rexamining how they test radiation exposures. They use SAM, a specific antropomorphic mannequin head modeled after a military recruit in the 90% of fitness, 6'3", 220 pounds. The head is filled with gel, and testers see how much heat it would take from a radiating antenna in six minutes or 30 minutes to raise the temperature of the gel inside SAM's head. This heat model has been proven unsafe by thousands of studies showing harm to our brains, eyes, skin, immune system, nervous system and more at the non-thermal level. See the website **We Are Not SAM!**
  www.wearenotsam.com/
- See Legal Issues for more lawsuits.

**Public Hotspots**

- In 2013, **Comcast/Xfinity began installing public hotspots on private residential routers** which broadcast the wi-fi signal from your home out to the street, further blanketing your home and neighbors in electromagenetic radiation. As the article indicates below, you can opt to shut off this signal by accessing your account on-line and turning off your wireless settings, or you can call Comcast and they'll do it for you. Note: Comcast may have up to five RF antennas in their home routers: 2.4 GHz, 5 GHz, 2.4 GHz hotspot, 5 GHz hotspot, plus a wireless home security antenna. Customer service representatives

are not typically trained on this, so consumers may need to ask for a tier-two tech support person to disable the latter antennas:

*http://money.cnn.com/2014/06/16/technology/security/comcast-wifi-hotspot/index.html*

**Cell Tower Regulation Compliance**

- **For those who live near cell towers or need rooftop access** in their lines of work, the following whistle-blower article will be disconcerting:

*http://microwavenews.com/news-center/cell-phone-carriers-fcc-cozy*

- Schilling CJ. "Effects of exposure to very high frequency radiofrequency radiation on six antenna engineers in two separate incidents."*Occupational Medicine (London)* 50.1(January 2000):49-56. Describes the health effects on six men exposed to high levels of RF radiation (100 MHz) while working on transmission masts. Symptoms included headache, paresthesia, diarrhea, malaise and lassitude. The condition of the four men with the highest exposure has shown no significant improvement. The incidents occurred in 1995 and 1996.

*The link to the abstract is here: https://www.ncbi.nlm.nih.gov/pubmed/10795393*

**Patent for Safer Technology**

- **Retired Microsoft President and Founder of Canadians for Safe Technology Frank Clegg** indicates the industry can absolutely make safer technology, they just need an incentive to do so. In 2004, Swisscom filed a patent titled, "REDUCTION OF ELECTROSMOG IN WIRELESS LOCAL NETWORKS". The **patent acknowledges the biological effects of today's routers on DNA and other systems, and would create new technology where wireless networks would be in sleep mode as the default until a connection is sought from a mobile device.** Currently, most of today's routers emit a biologically hazardous microwave pulse many times per second, 24/7/365 if not turned off. It's time to use our voices and wallets, and refrain from purchasing wireless devices until they can be made safely. See the patent below.

*https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2004075583&recNum=1&maxRec=&office=&prevFilter=&sortOption=&queryString=&tab=PCT+Biblio*

- Scientists at the Chinese Institute for Science and Technology are working on an alternative technology using a form of quantum mechanics called **direct counterfactual communication via quantum Zeno effect**. This may prove to be a biologically safer way to communicate wirelessly:
- http://www.pnas.org/content/early/2017/04/19/1614560114

**History of Prior Public Health Concerns**

- As we aim to understand how the EMF issues are likely to play out with regard to government regulations, it is important to consider precedents set with other public health toxins. It has taken **117 years for our government to regulate lead emissions, 42 years to regulate smoking** and the U.S. still has not ratified the World Health Organization's anti-smoking measures. It took **65 years to ban asbestos**. Granted, some health conditions take time to surface and to draw the direct connection to the cause. However, history shows the manufacturers knew but chose profit over public safety.
- Lead: **Our government took action to protect the public from lead exposure after nearly 10,000 studies were done. We already have more than 20,000 studies on electromagnetic radiation**:

*http://scienceprogress.org/2008/10/a-brief-history-of-lead-regulation/*

- Smoking:

*http://www.infoplease.com/encyclopedia/science/smoking-regulation-tobacco-smoking.html*

- Asbestos:

*http://zidbits.com/2011/06/what-is-asbestos-and-why-was-it-banned/*

**Lobbying Influence on Government Regulations**

- If you look at today's most influential lobbyists, you'll see **AT&T, Verizon and Comcast in the list of Top All-Time Donors**

*http://www.opensecrets.org/orgs/list.php*

- This helps to explain why the United States has kept wi-fi users in the dark and has not adopted the **Precautionary Principle** as other countries have done to protect their citizens. The Precautionary Principle states:

*1. Where there are threats of serious or irreversible damage, uncertainty should not be a reason for postponing action to prevent that damage.*

*2. Where there are threats of serious or irreversible damage, precautionary measures should be taken even if cause-and-effect relationships are not clearly established.*

*3. Whenever an action or substance could cause irreparable/irreversible harm, even if that harm is not certain to occur, the action should be prevented and eliminated.*

Even though the FCC has its 1996 public radiation exposure regulations under formal review, and we would like to believe our government will protect us, history dictates otherwise and we have to allow that the lobbyists may influence an outcome that does not serve public health.

- **Louisville, Kentucky** provides a good example of a municipality that determined building its own fiber-optic broadband network would be the most economical and effective solution. The industry interceded by influencing local authorities in meetings, and misleading residents via social media.
- Here is Louisville's plan: https://medium.com/louisville-metro-opi2/kentucky-wired-we-need-your-support-4573225b686a
- Here is how the industry applied their influence, as reported in the article by **Harvard Law School Professor Susan Crawford, *Koch Brothers Are Cities' New Obstacle to Building Broadband***: https://www.wired.com/story/koch-brothers-are-cities-new-obstacle-to-building-broadband/
- See ***Hundreds of Cities Are Wired With Fiber—But Telecom Lobbying Keeps It Unused***, by Jason Koebler in *Motherboard*: https://motherboard.vice.com/en_us/article/gvyyym/hundreds-of-cities-are-wired-with-fiberbut-telecom-lobbying-keeps-it-unused
- "**Why do we still not have a fiber optics system if we paid for it in our rates?** Bruce Kushnick has spent decades following Telecom/FCC actions with regard to fiber. He has an in depth understanding of how consumers have paid out billions in rate increases for

fiber optic networks that Telecom never delivered on. Furthermore, the FCC has been completely complicit and has turned a blind eye to Telecom's shoddy accounting and broken promises." Link to video lecture and book by Bruce Kushnick: http://scientists4wiredtech.com/regulation/kushnick-primer/

- See how the **industry accused the director of the U.S. National Institute of Environmental Health Sciences and National Toxicology Program of lobbying**: https://theintercept.com/2018/01/22/linda-birnbaum-niehs-house-science-committee/
- This article by the **American Bar Association** clarifies what **lobbying** is, and that non-profits can indeed lobby to a certain extent: https://apps.americanbar.org/buslaw/blt/2009-03-04/mehta.shtml

**Advertising Influence on Public Media Content**

- A common thought for many citizens and scientists, when they first learn about potential harm from wireless technology radiation, is:

***"If this were true, surely we would have heard of it!"***

- Unfortunately, the largest advertising dollars in mainstream media throughout the world come from the telecom, technology and energy sectors. Given everyone needs to make a living, **mainstream media is reluctant to run content that would adversely impact their advertising dollars**. According to Advertising Age in their most recent data from 2014, Microsoft was the number one advertiser, followed by AT&T and Verizon. Rounding out the top ten are other technology, energy and telecom companies: Apple, Samsung Electronics Co., IBM Corp., General Electric Co., Intel Corp., Staples and Deutsche Telekom (T-Mobile): *http://adage.com/article/btob/top-100-b-b-advertisers-spent-4-8-billion-b-b-ads/300042/*
- **Using the tobacco industry playbook**, these conglomerates have become **experts at suppressing evidence of harm and creating doubt** when folks start asking questions, all the while putting out advertisements that entice the public to buy their latest-and-greatest products. In so doing, they bank on the fact that the public will not take the initiative to look into any controversy themselves, and continue to purchase their potentially harmful products.

- When media outlets do run a story on potential harm from wireless technology, they introduce the issue, then usually stop short of telling the public **what the world scientists have stated in their International Appeal to the World Health Organization and the United Nations, which is to use hard-wired technology, update our radiation standards, and protect the public from wireless radiation**. Instead, **the media outlets say more research needs to be done**.

- They will usually cite some industry-funded science instead of credible, peer-reviewed non-industry funded research. The media could cite the thousands of world-wide studies covered in the **BioInitiative Report**that prove the science has already been done and concludes this radiation is harmful. But they don't, and this leaves the public puzzled, but not to the degree that they will consider changing their usage or buying patterns. Note, the industry has been known to discredit the BioInitiative Report saying it was never published, but it was. The original report was published in a 2009 special issue of *Pathophysiology*.

*http://www.sciencedirect.com/science/journal/09284680/16/2-3*

- The following is another example of media choosing not to cover this issue with true investigative journalistic integrity. There was a lawsuit announced against the prestigious private boarding school, **Fay School** in Southborough, MA, USA. A child has a diagnosis of electrohypersensitivity and the wi-fi system at school makes him ill. The school administration has refused to grant him accommodations to access to his education, even after the family offered to pay to hard-wire the ten classrooms in which the student would need to be for the school year. So, they have filed **a federal lawsuit under the Americans with Disabilities Act**.

- When news broke about the lawsuit, **Fox25 in Boston** found me through Senate Bill 1222 and asked if they could come to my home for an interview. I taught the journalist and cameraman about EMFs and used an Acoustimeter to demonstrate how much radiation comes out of our everyday devices and routers. I walked them through the BioInitiative Report. I showed them Harvard's Captured Agency report that details how the FCC is protecting corporate profits over public health.

They said that evening's story would just be a two-minute piece on the Fay School, but the journalist wanted to talk to her network about doing a bigger story on wireless radiation. Below is the Fay School story that ran (note, when I have looked at this clip, I have to sit through advertisements first. Often they are from telecom companies, or others pitching wireless services. I also have to adjust the mute/volume buttons to hear the clip):

*http://www.myfoxboston.com/news/parents-say-schools-wifi-signal-making-son-sick/7363472*

I noticed right away they did not reference credible science. Instead, they used a 2014 draft document of 16 inconclusive studies instead of the BioInitiative Report. They also reported the school has "safe levels" of radiation exposure, yet there have never been safe levels set by the FCC, just levels indicating at what exposure tissue heating occurs. That thermal-effect is obsolete since science has proven biological harm at the non-thermal level but the FCC has not updated its standards to mirror the science.

I have since looped back in with the journalist to see if she pitched the EMF story to her network, and she said she had, a couple of times, but there didn't seem to be any interest. I let her know the influence of advertising dollars was the likely reason why.

- Scientific American wrote the following article titled, "**How the FDA Manipulates the Media**": https://www.scientificamerican.com/article/how-the-fda-manipulates-the-media/
- There is hope though. **California was sued to release a long-suppressed public health fact sheet** on cell phone radiation, and in December 2017 CBS Evening News covered the story although they did not inform the public that all wireless devices, not just phones, come with similar fine print: http://www.cbs.com/shows/cbs_evening_news/video/_jQJ5tcCsj5o8qcZbBUBQS5R20mkRaYP/california-to-set-guidelines-limiting-cellphone-radiation-exposure/
- In 2019 **Forbes began reporting on the biological risks** with an article entitled, "An Electromagnetic Health Crisis": https://www.forbes.com/sites/cognitiveworld/2019/09/09/an-electromagnetic-health-crisis/amp/?fbclid=IwAR2Jyzhdd2eSkK91GN9b7jMvgKRoStBjSwHYYsHVPItev-SNSEDMAJ5Xl-g

- Professor Tom Butler of University College Cork filed a complaint with the Office of the Press Ombudsman for the Press Council of Ireland about a cell phone story written by **William Broad** for *The New York Times* (William J. Broad, "The 5G Health Hazard That Isn't;" New York Times, July 16, 2019) and reprinted by *The Irish Times* (William J. Broad, "Are there any real links between wireless technology and health?," September 5, 2019).
    - 
        - The Press Ombudsman concluded that the Broad story violated the truth and accuracy code of practice of the Press Council of Ireland.
        - https://www.irishtimes.com/opinion/professor-tom-butler-and-the-irish-times-1.4164003
        - Dr. Devra Davis reveals the NYT has conflicts of interest with industry and clarifies important 5G facts that Mr. Broad got wrong in his article:
        - https://medium.com/swlh/5g-the-unreported-global-threat-717c98c9c37d

# Doubts

**2018 Investigation by The Nation**

- An independent peer review of the **U.S. National Toxicology Program's cell phone study** announced their findings of clear evidence that cell phone radiation causes cancer—validating The Nation's special investigation:

***How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation***

The disinformation campaign—and massive radiation increase—behind the 5G rollout.

**Conflicts of Interest Among Those Who Set Radiation Limits**

- In the U.S., public radiation exposure limits are set by the Federal Communications Commission (FCC) and do not protect health. **Harvard's *Captured Agency* report** details how the FCC and industry are protecting corporate profit over public health:

*http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf*

- In Europe, the public radiation limits are set by the International Committee on Non-Ionizing Radiation Protection (ICNIRP). **Investigate Europe**, a team of investigative journalists expose that ICNIRP members have extensive conflicts of interest with industry. Dr. Joel Moskowitz chronicles their findings, and additional studies that show ICNIRP scientists are working for industry:

*https://www.saferemr.com/2018/07/icnirps-exposure-guidelines-for-radio.html*

- The 98 page report, " ***The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G"*** was commissioned, coordinated and published in 2020 by two Members of the European Parliament – Michèle Rivasi and Klaus Buchner: https://www.saferemr.com/2018/07/icnirps-exposure-guidelines-for-radio.html
- Priyanka Bandara, Ph.D., and others in 2020 published ***5G Wireless Deployment and Health Risks: Time for a Medical Discussion in Australia and New Zealand*** which cites conflicts of interest with industry and current evidence of harm: https://www.researchgate.net/publication/343416307_5G_Wireless_Deployment_and_Health_Risks_Time_for_a_Medical_Discussion_in_Australia_and_New_Zealand

**How to Evaluate EMF Information**

- As you research this topic, you will encounter conflicting information and those who say there is no issue with EMFs. This three-page document may help to clarify points of confusion with facts, ***EMF Points of Confusion vs. Fact***.
- Please bear the in mind the following two points to help you sort through conflicting information you may discover through independent investigation of EMFS:

***1. Dates Matter***

- Research into this topic has been going on for decades. Some diseases take longer to surface than others. So, **be mindful of the point in time at which the information you're reading was written**. Skeptical views or inconclusive studies written ten years ago, or even two, may have already been proven otherwise by more recent studies. Always look at the dates the information was written, and just as importantly, at the dates of the sources being cited.
- In 2007, a group of world experts published the first BioIniative report to reflect a collective body of evidence that EMFs were posing a growing public health issue. The authors recognized more research was needed to better understand the impact. For some, this was enough to default to the Precautionary Principle (an international standard for keeping the public safe). Others took a wait and see approach even though people were already getting sick and the studies showed many more could be expected to. Five years later an even larger group of world experts collaborated to put out a new 2012 BioInitiative Report to account for 1,800 new studies that had been done. These studies proved beyond scientific doubt that EMFs are posing a serious public health threat on multiple levels. The report was released in January 2013, and **in March 2013 the FCC announced its guidelines were being formally reviewed but the public comments have been ignored and more wireless spectrum has been approved so the industry can be first to market with toxic 5G infrastructure to enable the Internet of Things (IoT)**. See the 5G & IoT page.
- The BioInitiative Report findings are what made clear to the FCC that our outdated standards from 1996 must be revisited. The old standards address only the thermal effect of EMFs (how much radiation it takes to burn the skin of a six-foot man). Studies have shown the current thermal standards are 100s and in some cases 1,000s of times too high, depending on the disease, where wi-fi use is concerned. In other words, **if manufacturers are allowed to continue to say they comply with FCC guidelines they will continue to put out products that are at this moment causing multiple illnesses and fertility issues that will impact generations to come through the mutated gene pool.** Scientists, doctors and concerned citizens gave formal input to the FCC thru September 2013. As others become aware of this issue, they are encouraged to continue to voice concerns to our legislators until FCC guidelines protect the public. See the Solutions page.
- Dr. Henry Lai updated the BioInitiative Report with the studies done through 2017, and you can search them by topic in the Updated Research Summaries.

***2. Question Motive***

The other advice is to be mindful of who is writing each piece. Try not to get caught up in any hype or scare mongering from those with cavalier, egotistical, deliberately misleading or poorly researched opinions. **Look for scientific studies and mainstream non-industry funded**

**credentialed experts who analyze them.** Current facts will speak for themselves, so folks shouldn't have to use scare tactics. If you read a source and aren't sure, then dig. If your digging doesn't produce satisfactory credentials, then perhaps move on.

We know it's not beyond industry tactics to plant seeds of doubt to keep the public wanting to hold onto beliefs that serve their profits rather than the public's health. That includes paying **unethical "experts"** to promote their agenda, who will present information deliberately meant to confuse and contradict evidence. Think Erin Brokovich, who continues to dedicate her life to protecting the public and holding profit-driven corporations accountable. Think Monsanto, Dupont and others who are spending millions on advertising to prevent having to put labels on foods that will tell consumers they are eating genetically modified organisms (GMOs). In the latter case, Europe is already ahead of the U.S. in protecting public health, as they and other countries have already banned GMOs completely from their food source.

See the following article, ***Manufacturing Doubt in Product Defense***, which explains how consumers get caught in the middle and don't change their buying patterns when the vendors are successful at manufacturing doubt:
http://www.fastcompany.com/1139299/manufacturing-doubt-product-defense

Dr. Joel Moskowitz shares examples of how the **industry influences science:**
*https://www.saferemr.com/2015/02/industry-funded-scientists-undermine.html*

See also the Manufacturers page.

**Examples of Confusing EMF Information**

The following links were brought forth by some trying to understand the contradictory information they were reading. I've jotted a few comments next to each:

- https://www.ejcancer.com/article/S0959-8049(19)30767-1/fulltext: In this 2019 paper in the **European Journal of Cancer Drs. Pri Bandara and David Carpenter** rebut some of the false claims regarding the cancer risk associated with man-made electromagnetic radiation/fields. It is free to download for a limited time.
- http://web.princeton.edu/sites/ehs/radiation/nirad.htm: This **Princeton website** referenced old sources from 2001-2006, and did not address the now known adverse impacts on pregnant staff members and students. Parentsforsafetechnology.org reports on progress made at Princeton: http://www.parentsforsafetechnology.org/princeton-university-removes-wifi-safety-assurances.html
- http://www.epa.gov/radtown/wireless-tech.html: **The EPA** also provide information to help understand the health impact of wi-fi: http://www.epa.gov/radiation/understand/health_effects.html
- http://www.epa.gov/radtown/wireless-tech.html: Can’t get to this site, it brings me to a **facebook warning**, “Please be careful: For the safety and privacy of your Facebook account, remember to never enter your password unless you're on the real Facebook

web site. Also be sure to only download software from sites you trust. Learn more about keeping your account secure." So I didn't go further.

- http://www.emfandhealth.com There is no date on this, so I suspect it is an old site. It also states, "They represent the personal views of the authors and not the organizations that they work for or are associated with. Referenced documents are attributed to the source. Unreferenced and unattributed materials are the responsibility of the Web Master." Seems a little sketchy, **why didn't they just reference their sources**?
- http://www.sciencebasedmedicine.org/picking-cherries-in-science-the-bio-initiative-report/ This argument is lost; the **FCC standards are under formal review**.
- http://www.emfandhealth.com/Expert_Reviews_Quotations_2000-2010__10-04-10_.pdf: Old, 2010
- https://www.canada.ca/en/health-canada/services/environmental-workplace-health/radiation/consumer-radiation/equipment/frequently-asked-questions-about-radiation.html **Canada's standards are similar to the US's**, which the FCC now formally has under review.
- http://emf.electricity.ca/PDFs/PANEL%204%20-%202%20-%20ELwood%20Presentation%20on%20BioInitiative%20report%203.pdf Old, that's **a review of the 2007 report, not the 2012 report**.
- http://www.democraticunderground.com/discuss/duboard.php?az=show_mesg&forum=222&topic_id=70322&mesg_id=70392 Old, 2009
- http://www.theguardian.com/technology/askjack/2012/sep/27/wi-fi-health-risks He's referencing old information; the **WHO has upgraded their classification**.
- http://www.emfandhealth.com/Samuel%20Milham.html Old, 2009.
- http://www.fcc.gov/guides/wireless-devices-and-health-concerns Becoming obsolete, **FCC guidelines under formal review**.
- http://www.casewatch.org/civil/firstenburg/dismissal_order.pdf New precedent has been set in Australia, **workers comp case won for electromagnetic sensitive worker**.
- http://www.emfexplained.info/?ID=25192 **Referring to selective WHO quotes**; the WHO now classifies EMFs as a Possible Human Carcinogen, and there are years of additional studies showing biological harm that have been done since the WHO upgraded their classification. See the Cancers page for additional information.
- http://www.who.int/docstore/peh-emf/EMFStandards/who-0102/North_America/USA_files/table_us.htm Old, the FCC does have its standards under formal review.

**Myths**

The following sites have posted information on common myths and misconceptions surrounding EMFs:

- Environmental Health Trust on **FCC "safety" standards**: http://ehtrust.org/policy/fcc-safety-standards/
- **National Association for Children and Safe Technology**: http://www.nacst.org/10-myths.html
- **EMFWise**: http://www.emfwise.com/myth.php

# Media Limitations

Quite often, when one learns about potential harm from wi-fi radiation, the first reaction is, "Surely if this were an issue I would know about it!" This has been the sentiment of doctors, scientists, legislators, colleagues, the neighbors, family members and others when they first join the conversation.

Unfortunately, in the United States, Canada and elsewhere, much of our information is filtered by the companies that own mainstream media channels. I experienced this first-hand.

**Media Filtering of News**

- A lawsuit was served to a private school in Massachusetts where a boy had been diagnosed with electrical sensitivities (ES) and the school refused to provide reasonable accommodations under the Americans with Disabilities Act. When Fox TV researchers looked into the issue, they came up with my name as Senator Karen Spilka had introduced a bill on my behalf to raise awareness of wi-fi radiation. I was contacted by a journalist who asked if she could bring a cameraman to my house for an interview.
- I spent an hour educating them on potential harm from wi-fi radiation, and measured their devices. They indicated that the evening's story would only be one minute long and would focus on the Fay School lawsuit, but the journalist wanted to have her network do a bigger story on wi-fi radiation in the future. I looped back in with her sometime later, and she said she pitched the story a couple of times but her network was not responding.
- I let her know when I looked up the initial school lawsuit story on-line, I had to sit through an advertisement before the story would play. The ad was from Sprint, a telecommunications company. I let the journalist know that since the telecom companies were paying a lot of the operating costs for the station through advertising dollars, it is unlikely the network would run a truly investigative story on wi-fi radiation as it would shine an unfavorable light on major advertisers.
- I have since clicked on the link below to the story, and had to sit through other ads. One day it was Comcast Xfinity, and another it was Capital One speaking about having free wi-fi in their stores:

*https://www.boston25news.com/news/parents-say-schools-wifi-signal-making-son-sick-1/7363498/?_website=cmg-tv-10020*

- The story itself, brief as it was, did not highlight the thousands of peer-reviewed scientific studies showing evidence of harm. Rather, it featured a 16-study *draft* report from 2014 that concluded more scientific study is needed. That may have been true back in 2007, but since then, thousands of additional studies have been done and reported out through the BioInitiative Report. The FCC put its standards under formal review when the BioInitiative Report was released in early 2013, but has not updated its information to the public. See The Science page for details.

**The FCC and Powerful Industries Control the Media**

- In 2015, Harvard University published the **Captured Agency** report, which details how the FCC is not giving the public important information on wi-fi radiation. Basically, the FCC is being run by the telecom industry which puts corporate profit above public health. The telecom industry funds our mainstream media, and so our citizens are kept in the dark. Take note of the advertisements you hear on television, radio, the internet, etc. http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf
- As reported by The Defender in 2020, "The "**unfair market practices" of technology giants Google and Facebook** have decimated local journalism, threatening "America's most trusted news sources," according to a new report from the office of Sen. Maria Cantwell." https://childrenshealthdefense.org/defender/senator-slams-google-facebook-local-news/?utm_source=salsa&eType=EmailBlastContent&eId=b4e0967b-b2fc-4452-bb86-01cf1be86f55
- Long-time ***PC Magazine*** **journalist John Dvorak** wrote in 2018, 5G Got Me Fired: *https://scientists4wiredtech.com/2018/09/5g-got-me-fired/*

**Non-Mainstream Media**

- Non-mainstream channels will often produce more fact-based reporting and allow for freedom of speech.
- The Society of Environmental Journalists published **Katie Alvord's article**, "Is Wireless Technology an Environmental Health Risk?" This is a good article to give to local

journalists to help them learn about this issue and identify a stream of **reporting angles**: https://www.sej.org/publications/features/wireless-technology-environmental-health-risk

- Below is an example of **O'Dwyer's** reporting on this subject. Jack O'Dwyer was an independent veteran journalist who covered the press conference in 1964 when the U.S. Surgeon General informed the public that cigarette smoking was bad for our health. Mr. O'Dwyer knew the science on tobacco had been done decades before, but the tobacco industry was very effective in suppressing evidence of harm and creating doubt. Creating doubt leaves consumers uncertain, so they continue to buy toxic products. Mr. O'Dwyer understood that telecom and energy industries are using the tobacco playbook today. A quick search on O'Dwyer's using the keyword 'wi-fi' brings up many articles he has written to inform the public: *http://www.odwyerpr.com/search_results.html?q=wi-fi*

- Local cable stations often allow community members to discuss important issues. **WCCA** in Worcester, MA, for example, invited me and a smart meter opt-out advocate to educate the public on a half-hour show called Soapbox:

*http://www.wccatv.com/video/soapbox/SOAPBOX1052*

- Public Broadcasting Stations (PBS) often cover issues too that are not discussed in mainstream media. **WGBY** in Springfield, MA asked me to come in for a six-minute segment that aired in March 2016:

*https://www.youtube.com/watch?v=iE5FLQJX6bA*

- While PBS was intended to be non-commercial, funding constraints have now made **PBS open to commercial interests**. Understanding Media and Culture: An Introduction to Mass Communication offers a chapter on *Issues and Trends in the Television Industry* that provides the history of media funding and corporate influence on content: https://saylordotorg.github.io/text_understanding-media-and-culture-an-introduction-to-mass-communication/s12-03-issues-and-trends-in-the-telev.html

- A search on **PBS funders** on November 1, 2020 shows corporate sponsorship of the news: https://www.pbs.org/newshour/about/funders

**Other Countries**

- Some countries are more proactive about providing information to protect their citizens. Australia, for example, ran a Wi-Fried story in 2016 -- but was later made to take it down:

  *http://www.abc.net.au/catalyst/stories/4494933.htm*

# World Response

- The **World Health Organization's (WHO**) Radiation Programme has an ongoing project to assess potential health effects of exposure to radiofrequency electromagnetic fields in the general and working population. To prioritize potential adverse health outcomes, WHO conducted a broad international survey in 2018. Ten major topics were identified for which WHO will now commission systematic reviews to analyze and synthesize the available evidence. web.archive.org/web/20200514165110/https:/www.who.int/peh-emf/research/rf_ehc_page/en/index1.html

It could take years for public policy to catch up to the science though, so **citizens, municipalities and schools are well-advised to transition away from wireless radiation and instead connect with technology via fiber to and through the premises (using Ethernet cables and adapters to devices as needed)**:

- In December 2020 the **European Parliament** began an investigation into wireless radiation, especially 5G. The panel is a two-hour session with six representatives from industry and science. In the final minutes the Parliamentarian discredits the industry's claims and calls for a moratorium on 5G. The moderator recommends emulating the New Hampshire, USA, commission's investigative process. See NH report recommendations. https://multimedia.europarl.europa.eu/en/panel-for-future-of-science-and-technology-workshop-on-5g_20201207-1000-SPECIAL-STOA_vd
- The **European Parliament** advocates using the **Precautionary Principle**. The Precautionary Principle states, when there are indications of possible adverse effects, though they remain uncertain, the risks from doing nothing may be far greater than the risks of taking action to control these exposures. The Precautionary Principle shifts the burden of proof from those suspecting a risk to those who discount it. To date, no research has proven EMFs are safe, and recent studies have proven they are extremely harmful.

https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_IDA(2015)573876

- As documented in the following articles, many **governments are captured by industry** and put economic interests ahead of public health:

Rainer Nyberg, Julie McCredden and Lennart Hardell

**The European Union assessments of radiofrequency radiation health risks – another hard nut to crack**

https://doi.org/10.1515/reveh-2023-0046

Nils Rainer Nyberg, Julie E. McCredden, Steven G. Weller and Lennart Hardell

**The European Union prioritises economics over health in the rollout of radiofrequency technologies**

https://doi.org/10.1515/reveh-2022-0106

- In 2020 **Russia** issued the following safety guidelines for children studying from home during the pandemic: https://ehtrust.org/russia-bans-wi-fi-and-smartphones-for-distance-learning/?fbclid=IwAR2EnZjneux7CwiqPwsHW2flmAjiRZWOxwk1PnPVosEXtCNZ6C-1-wSUjIs
- **The Mediterranean country of Cyprus** issued similar pandemic guidelines: http://paidi.com.cy/guide-on-safe-internet-connection-especially-for-children-and-distance-learning/?lang=en

- In 2017, **Cyprus** signed the nation-wide Nicosia Declaration on Electromagnetic and Radiofrequency Radiation to educate and protect their citizens: https://ehtrust.org/2017-nicosia-declaration-electromagnetic-radiofrequency-radiation/ http://www.cyprus-child-environment.org/
- **India's Supreme Court** is tuning in, thanks to celebrity action: https://www.thehindubusinessline.com/info-tech/sc-admits-pleas-against-mobile-tower-radiation/article24949596.ece
- The **Environmental Health Trust** keeps a database of international policy actions on wireless radiation:

*https://ehtrust.org/policy/international-policy-actions-on-wireless/*

- In 2015, Dr. Martin Blank, now representing **225 microwave radiation scientists worldwide**, made an international appeal to the United Nations and the World Health Organization calling for Protection from Non-ionizing Electromagnetic Field Exposure. Dr. Blank provides a three-minute video introduction to the Advisory here: https://emfscientist.org/.
- The two-page Advisory is provided in full here, along with **scientists from countries around the world**: http://www.emfscientist.org/index.php/emf-scientist-appeal
- In 2017, the International Journal of Oncology published a report explaining **the WHO has conflicts of interest** with industry and does not plan to take action to protect the public from non-thermal electromagnetic radiation, even though the scientific and epidemiological evidence of harm is well documented: https://www.spandidos-publications.com/10.3892/ijo.2017.4046
- Many who experience electrical sensitivities also suffer from multiple chemical sensitivities (MCS). At the **5th Paris Appeal Congress**, 18th of May, 2015 at the Royal Academy of Medicine, Belgium, world experts convened to discuss "**Environmental idiopathic intolerance: what role for EMFs and multiple chemicals?**" They are asking for international codes to classify and treat EHS and MCS: https://www.youtube.com/watch?v=UTFAMlCKUBM

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Thankfully, many **public servants are no longer waiting for direction** from what were once considered credible higher authorities. They are doing their own independent investigations and protecting their citizens:

- In 2018 cities in **Iran** began installing systems to measure and monitor electromagnetic radiation emissions. This is a step in the right directions and will be most effective if cities use biologically based limits for emissions instead of outdated ICNIRP limits which allow too much radiation for biological protection: https://www.en.eghtesadonline.com/Section-technology-13/27288-electromagnetic-radiation-online-monitoring-system-in-tehran-shiraz
- The **City of Krakow, Poland** has instituted a "Let's Be EcoDigital" Initiative and Conference on Electromagnetic Environmental Pollution to educate its citizens: https://ehtrust.org/krakow-polands-lets-ecodigital-initiative-conference-electromagnetic-environmental-pollution/
- Lynne Wycherley reported on this in The Ecologist, 2017:Krakow's bold step to curb electromagnetic pollution reflects growing evidence of harm
- A growing number of **states in the U.S.** are passing laws to investigate EMF harm and protect the public: https://sites.google.com/site/understandingemfs/massachusetts-emf-bills-2019-20/bills-in-other-states-2019-20
- In April 2016 the mayor of Haifa, the third largest city in **Israel**, banned wi-fi from schools: https://buildingbiologyblog.com/2016/04/29/haifa-israel-orders-wi-fi-to-be-removed-from-all-schools/
- This is the television program that motivated the **Haifa mayor** to investigate and take action: https://www.youtube.com/watch?v=bpJsIWuV-PA
- In March 2016 lawmakers in **Argentina** filed a bill to establish a national law against electromagnetic pollution. See below for a Google translation of this article: https://translate.google.com/translate?sl=es&tl=en&js=y&prev=_t&hl=en&ie=UTF-8&u=http://www.nuevocronista.com/argentina-busca-una-ley-nacional-contra-la-contaminacion-electromagnetica/&edit-text=

- On January 29, 2015, the **French National Assembly** made history by passing a new national law to reduce exposures to wireless radiation electromagnetic fields: http://ehtrust.org/france-new-national-law-bans-wifi-nursery-school/
- **France issued a decree for the protection of workers** against the risks arising from electromagnetic fields, which went into effect on January 1, 2017: https://www.legifrance.gouv.fr/eli/decret/2016/8/3/ETST1611714D/jo
- In 2017, the **French** government released radiation measurements that show the way we use cell phones today up against our heads exceeds public radiation exposure limits. See **PhoneGate**: Cell Phone Radiation Exceeds Limits When Tested At Body Contact Position: https://ehtrust.org/policy/phonegate-cell-phone-radiation-exceeds-limits-tested-body-contact-position/
- Note, in 2008, the **France National Library** gave up wi-fi too: http://www.next-up.org/pdf/PressReleaseFranceNationalLibraryBNFisGivingUpWiFi03042008.pdf
- The City of Tarragona in Catalonia is the first municipal government in **Spain** to implement a rescue plan for people with central sensitivity syndromes (CSS) including electrohypersensitivity (EHS): https://afectadasporlosrecortessanitarios.wordpress.com/2015/11/29/good-news-first-rescue-plan-for-people-with-css/
- In the **Mediterranean**, the Cyprus National Committee on Environment and Children's Health released the following five-minute public advisory (as translated by Environmental Health Trust): https://www.youtube.com/watch?v=H43IKNjTvRM
- In May 2015 **Berkeley, California** passed an historic right to know ordinance that in part reads:
    - *A Cell phone retailer shall provide to each customer who buys or leases a Cell phone a notice containing the following language:*
    - *"The City of Berkeley requires that you be provided the following notice:*
    - *To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a*

*wireless network, you may exceed the federal guidelines for exposure to RF radiation. This potential risk is greater for children.*

- *Refer to the instructions in your phone or user manual for information about how to use your phone safely."*
- The full ordinance is attached below.

- World experts are also concerned about unchecked **wi-fi safety in airplanes** for passengers and in-flight crew members: http://www.electricsense.com/11622/wifi-radiation-planes-fly-low-emf/
- Lloyd Burrell of ElectricSense.com offers suggestions for how to minimize exposure while traveling: https://thetruthaboutcancer.com/emf-exposure-travel/
- In August 2015, retired **WHO General-Director and Prime Minister of Norway** Dr. Gro Harlem Brundtland was interviewed by the Norwegian newspaper Aftenposten. She herself gets immediate headaches from her cell phone. See the three minute interview here: https://www.youtube.com/watch?v=ISsQSwiWI2E
- The **Russian National Committee on Non-Ionizing Radiation Protection** indicates Wi-Fi in kindergartens and schools should be strictly regulated and hard-wiring should be used: https://www.scribd.com/document/182641315/RNCNIRP-Russia-Wi-Fi-Regulation-19-06-12-pdf
- While the **United States and Canada** have been slow to respond and have some of the worst EMF public health standards in the world, other countries have already taken measures to protect their citizens and our planet. The link below summarizes **what other countries have done**: http://www.wifi-in-schools-australia.org/p/worldwide.html
- The **California Medical Association** in December 2014 resolved to set up a task force to determine adequate precautionary recommendations for the use of cell phones and wireless devices for schools and children: http://ehtrust.org/california-medical-association-wireless-resolution/?utm_source=March+2014+Newsletter&utm_campaign=Oct+2014+Newsletter&utm_medium=email

- This link summarizes **international actions taken over the years** to protect against cell phones and now wi-fi as well: http://www.cellphonetaskforce.org/?page_id=128
- **India** is among the nations with toughest EMF radiation standards: http://tech2.in.com/news/general/india-among-nations-with-toughest-emf-radiation-standards/749632
- **Illegal cell towers** have also been taken down in India: http://www.mid-day.com/articles/bmc-demolishes-illegal-mobile-towers-at-south-mumbai-building/18123189
- The **Council of Europe's Parliamentary Assembly** released "Resolution 1815 (2011): The potential dangers of electromagnetic fields and their effect on the environment." They advise, "8.1.1. take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours;". The full Resolution offers clear recommendations: http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=17994
- Safe in Schools provides the following **Medical Advisory: Wi-Fi Radiation and Children's Health** which also indicates how groups in the U.S. and other countries are responding: http://www.safeinschool.org/2013/02/medical-advisory-wifi-radiation-and.html
- The Electromagnetic Radiation Research Foundation of **South Africa** advocates the Precautionary Principle and other measures to keep its citizens safer: http://www.emrrfsa.org/about-us/
- ABC News: A **Danish** science experiment by a group of 9th-graders has gained worldwide interest and may have us rethinking the proliferation of wireless devices in our homes: http://abcnews.go.com/blogs/technology/2013/05/can-wifi-signals-stunt-plant-growth/

# Military Experts

**Government Science**

The U.S. government has known there are biological effects from electromagnetic radiation for decades. In the U.S. and elsewhere, evidence of harm was suppressed and non-protective standards were set, falling back on the excuse that more research needs to be done before public radiation limits will be updated.

In science, when there is evidence of harm, protocol states that we stop, conduct research until it can be proven safe, then resume public use. This is called the Precautionary Principle. Some countries invoked the Precautionary Principle decades ago to protect their citizens from non-ionizing, non-thermal microwave radiation when evidence came to light that we don't need to heat tissue to cause damage. Our U.S. guidelines are set at this high thermal level, but damage is being done at microwave radiation levels far, far lower than the standards. This is not regulated by our government and the public is therefore not protected.

Unfortunately, our engineers, scientists, doctors and physicists are taught in school that microwave radiation harm can only happen if there is tissue heating (called the thermal effect). The following body of evidence was not considered when our FCC guidelines were set back in 1996, and it is therefore difficult for our current professionals to understand that the wireless technology products they are producing are biologically harmful.

These documents have since been unclassified:

- **Naval Medical Research Institute's 1971 report**: BIBLIOGRAPHY OF REPORTED BIOLOGICAL PHENOMENA ('EFFECTS') AND CLINICAL MANIFESTATIONS ATTRIBUTED TO MICROWAVE AND RADIO-FREQUENCY RADIATION
- The **U.S. Army Medical Intelligence and Information Agency Office of the Surgeon General** published the following report in 1976. It speaks to early international research on Blood, Cardiovascular System, Cells, Central Nervous System, Digestive System, Glands, Metabolism, Reproduction, Visual Systems and Internal Sound Perception: https://www.emfanalysis.com/wp-content/uploads/2015/01/Defense-Intelligence-Agency-1976-Report-on-Biological-Effects-of-EMF.pdf

- **CIA Translations on USSR** Science and Technology Biomedical Sciences, Effects of Nonionizing Electromagnetic Radiation, 1977, includes, among other studies, Biological Effects of Millimeter Radiowaves on p. 61: alpaca-chinchilla-x6xf.squarespace.com/s/CIA-Declassified-USSR-Translation-Nonionizing-EMR-Effects-1977.pdf
- **NASA** issued the following report in 1981. See page 30 for many of the symptoms that are being categorized as electromagnetic radiation syndrome today: *http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19810017132.pdf*
- This **Army Intelligence** document from 1998 identifies ways in which electromagnetic radiation was being considered for warfare: http://refusesmartmeter.com/Bioeffects_of_Selected_Non-Lethal_Weapons.pdf
- The **Naval Military Research Institute** issued the following report in 1972. It too classifies the many known biological effects on man: https://ehtrust.org/wp-content/uploads/Naval-MRI-Glaser-Report-1976.pdf
- The **Moscow Signal Experiment** also indicates our military was knowledgeable of the harm caused by EMFs as early as 1962, long before this technology was deployed in the commercial sector.
- The history of the Moscow Signal has received renewed media attention in recent times as a potential historical precedent for the '**Havana Syndrome**'. See **The Moscow Signals Declassified: Microwave Diplomacy, 1967-1977**: www.saferemr.com/2021/11/the-havana-syndrome.html
- This 2018 public document explains **U.S. military plans for 5G** via the Electromagnetic Defense Task Force:

https://www.airuniversity.af.edu/Portals/10/AUPress/Papers/LP_0002_DeMaio_Electromagnetic_Defense_Task_Force.pdf

**Military Experts Speak Out**

Military experts from around the world who have worked with this technology for warfare are speaking out about the serious dangers of exposing the general population to microwave radiation emitted by wi-fi devices.

  - Retired **U.S. Government Physicist Dr. Ron Powell**, from Maryland, has authored several papers to help consumers and public agencies understand the implications including illness symptoms, questions to ask your energy company, FCC limits, a ranking of smart utility meter types and more:
  - http://www.scribd.com/doc/291507610/Documents-on-Wireless-Technology-and-Health-by-Ronald-M-Powell-Ph-D
  - Dr. Powell has issued **open letters for schools and libraries** to begin protecting their citizens:
  - http://www.scribd.com/doc/289778053/Message-to-Schools-and-Colleges-about-Wireless-Devices-and-Health
  - http://www.scribd.com/doc/300834441/Message-to-Public-Libraries-About-Wireless-Devices-and-Health

- **Retired Captain Jerry Flynn** served in the **Canadian military** for 26 years specializing in wireless radio systems, radiowarfare and electronic warfare. He provides a history of military knowledge of harm from electromagnetic radiation, and why he is gravely concerned for the rollout of smart utility meters and the rest of our wireless devices: https://www.youtube.com/watch?v=c-F3nf47kAs
- Independent journalist **Jack O'Dwyer** published a summary of Jerry Flynn's concerns in the 2016 article, "Governments, Authorities Ignore 60+ Years of Dangers of Wi-Fi": http://www.odwyerpr.com/story/public/6595/2016-03-28/governments-authorities-ignore-60-years-dangers-wi-fi.html
- **Military pilots** are seeing an increase in cancers from the sun's ionizing radiation and the interior of the plane's non-ionizing man-made radiation exposures: americanmilitarynews.com/2019/08/we-are-dropping-like-flies-ex-fighter-pilots-push-for-earlier-cancer-screenings/
- **Canadian military pilot's terminal cancer likely linked to service, appeal board rules:** www.ctvnews.ca/vancouver/article/canadian-pilot-granted-posthumous-benefits-after-veterans-affairs-denied-cancer-link/

- **Professional Pilot Magazine** published an article on 5G that is useful to print out and give to the captains and flight crews when you fly: https://alpaca-chinchilla-x6xf.squarespace.com/s/5G-and-electromagnetic-fields-Professional-Pilot-Magazine-Aug-2022.pdf
- See this article on the need to halt 5G by the **Microwave Injured Veterans Network**: https://www.microwavedvets.com/virus?fbclid=IwAR0s1FyRALvi47jgDQL_mNR5IRn-cWqXLZ7DdMPqXkiMjY6HQW09wENHZwA
- **Barrie Trower**, a former physicist with the **British Royal Navy** and expert in radiation, explains in the following two-part lecture the dangers of using wi-fi radiation. He is particularly concerned for the welfare of children and fetuses:

  http://www.youtube.com/watch?v=5xgJmeQaQmc

  http://www.youtube.com/watch?v=UhcuSEHVOSM
- Safe Tech International has released an online 6-page resource/PDF and accompanying printable 3-panel brochure on the **impacts of technology and AI on the military and war**:

  safetechinternational.us4.list-manage.com/track/click?u=62918fe9a1393b79c7030d636&id=b747561911&e=503448e749
- There is a 2025 non-profit forming for those assaulted by **Direct Energy Weapons**. Victims are encouraged to fill out a form here: https://dewpolice.com/about/. See their introductory video: www.youtube.com/watch?v=4sOpTBZN6LQ

# Planetary Impact

In addition to the harm being done on humans by wireless technologies, scientists are also concerned for the health of other species and our planet.

- The following link provides a visual depiction of **what wi-fi would look like** if we could see it: https://www.businessinsider.com/heres-what-wi-fi-would-look-like-if-we-could-see-it-2013-7#:~:text=But%20few%20of%20us%20have,visible%20to%20the%20human%20eye.
- **A Science, Policy and Law Webinar on the Impacts to Flora and Fauna from Cell Towers, Wireless Networks and Non-ionizing Electromagnetic Radiation:** ehtrust.org/wireless-impacts-to-wildlife-and-the-environment-an-expert-webinar-on-science-policy-and-law/
- See this seminal 2021 three-part series of articles by B. Blake Levitt, Dr. Henry Lai and Dr. Albert Manville detailing the **effects of EMFs on the environment**:

  *Effects of non-ionizing electromagnetic fields on flora and fauna, part 1.* ***Rising ambient EMF levels in the environment:***

  https://pubmed.ncbi.nlm.nih.gov/34047144/

  *Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts:* ***How species interact with natural and man-made EMF:***

  https://pubmed.ncbi.nlm.nih.gov/34243228/

  *Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3.* ***Exposure standards, public policy, laws, and future directions:***

  *https://pubmed.ncbi.nlm.nih.gov/34563106/*

- See this presentation by EMF experts for environmental health leaders on the health effects of wireless radiation titled "**Wireless Radiation What Environmental Leaders Should Know .**" www.youtube.com/watch?v=e5ABKmLP0rE&t=8s
- 2026 study on plant impact, **Reduced Photosynthetic Efficiency of Tilia (*Tilia tomentosa*) Exposed to Radio Frequency Electromagnetic Field (RF-EMF)—JIP-Test Analysis**: www.mdpi.com/2223-7747/15/12/1824
- See Alfonso Balmori's 2021 study, "**Electromagnetic radiation as an emerging driver factor for the decline of insects**": https://www.sciencedirect.com/science/article/pii/S0048969720384461?dgcid=author
- 2022 study finds RF radiation has negative effects on **tomato plants**; recommends cell towers be prohibited on agricultural lands:

  www.sciencedirect.com/science/article/pii/S168785072200125X
- See **Dr. Cindy Russell**'s 2018 article, Wireless Silent Spring: https://mdsafetech.files.wordpress.com/2018/11/wireless-silentspring_-sccma-oct-2-2018.pdf
- See the article *Global Wi-FI and 5G: What is the Environmental Price Tag to Earth and Life?* to understand the impact of 5G **satellites** and other components: https://blog.sfgate.com/storystudio/2020/11/17/global-wifi-and-5g-what-is-the-environmental-price-tag-to-the-earth-and-life/
- See the **Environmental Health Trust** website Wildlife, Wireless and the Environment: www.wildlifeandwireless.org/ https://ehtrust.org/science/bees-butterflies-wildlife-research-electromagnetic-fields-environment/
- An internet search on "**bee colony collapse radiation**" returns many findings.
- **Bees, Birds and Mankind** Destroying Nature by `Electrosmog´ by Ulrich Warnke: https://ecfsapi.fcc.gov/file/7521097894.pdf

- **EMR and birds**: published papers in peer-reviewed scientific journals, that show (possible) EMR effect: http://www.livingplanet.be/emrbirds.htm
- See this 2025 paper by Daniel Favre and Olle Johansson, Honeybees' Behavior in a Faraday-Shielded Hive: **Mandatory Schumann Resonance for Colony Survival:** www.researchgate.net/profile/Olle-Johansson
- **Mobile phone-induced honeybee worker piping**: https://link.springer.com/article/10.1007/s13592-011-0016-x
- **India** is taking a proactive stance: http://tech2.in.com/news/general/india-among-nations-with-toughest-emf-radiation-standards/749632
- See an observational study by Diana Kordas, ***Birds and Trees of Northern Greece****: Population Declines Since the Advent of 4G Wireless:*

https://einarflydal.files.wordpress.com/2017/08/kordas-birds-and-trees-of-northern-greece-2017-final.pdf

- Terpenes induced by electromagnetic radiation can cause **forest fires: www.naturalblaze.com/2021/09/5g-emf-rf-whats-causing-all-the-terrible-forest-fires.html?fbclid=IwAR3BSljC5YufOAW7dmBrYt-6BLeGtQtznxxULk2yaEKQ3zGYlSf9-Xm3pV0**
- **French farmers** are suing the state over mystery cow deaths they blame on electromagnetic fields: https://www.telegraph.co.uk/news/2019/04/26/french-farmers-sue-state-mystery-cow-deaths-blame-electromagnetic/
- Although an older document, ***Microwaving Our Planet: The Environmental Impact of the Wireless Revolution***, provides an overview of some of the EMF environmental issues we face. The author, a wi-fi activist considered a fanatic by some, made predictions years ago about the future that we are unfortunately seeing come true today. He includes a large list of studies done up to that point: http://www.whale.to/b/firstenberg2.html

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**Climate Change**

With gratitude to the **Environmental Health Trust**, the following reference sources explain how our electronic devices, wireless systems and data centers are contributing to climate change:

- 
    - E-lephants in Our Hands: How Electronics Impact Climate Change

*A Radio Talk By Katie Singer (a transcript is also provided for those who prefer written form); March 4, 2016, The University of Oregon/Eugene, Environmental Law Conference*

- 
    - The Center for Energy Efficient Telecommunications Report, "The Power of Wireless Cloud"

*This Australian study found that **wireless networking infrastructure worldwide accounts for significantly more power consumption than data centers**. They calculated that wireless cloud access will generate as much planet-harming CO2 as 4.9 million cars by 2015. It consumes far more energy to keep streaming or downloading and uploading files wirelessly than it does to carry the same files around and access them from the local device.*

- **Greenpeace** indicates if the wireless industry were a country, it would be the fifth largest energy consumer in the world: www.greenpeace.org/international/publication/6986/how-clean-is-your-cloud/
- The **energy and greenhouse-gas implications of internet video streaming** in the United States

*A study on the growing energy impact of Internet video streaming found data transmission is the most energy-intensive part of streaming movies. This report was published in Environmental Research Letters. The authors state that results from this study indicate that designers and policy makers should focus on the efficiency of end-user devices and network transmission energy to curb future increases in energy use from the proliferation of video streaming.*

- More Data, Less Energy Making Network Standby More Efficient in Billions of Connected Devices

*In July 2014, the International Energy Agency released their Report calling for better standards on the energy devices use when they are on standby. This report details the problem of electronic devices drawing as much power in standby mode as they do when activated. Consumers who own these devices often only use them for a short time every day, but they continue to use power so they can boot up an internet connection in a few seconds.*

- This article from the Institute for Electrical and Electronics Engineers (IEEE) indicates, "Wireless technologies will continue to **consume at least 10 times more power** than wired technologies when providing comparable access rates and traffic volumes." See page 7 of 8, just above Conclusions, which indicate hard wiring with fiber-optics to the premises is the most energy efficient solution.

*https://people.eng.unimelb.edu.au/rtucker/publications/files/energy-wired-wireless.pdf*

- See additional articles on **smart phone and climate impact**:
    - https://theconversation.com/how-smartphones-are-heating-up-the-planet-92793
    - http://www.dailymail.co.uk/sciencetech/article-5547227/Experts-warn-smartphones-contribute-125-MEGATONS-emissions-2020.html
    - https://www.fastcodesign.com/90165365/smartphones-are-wrecking-the-planet-faster-than-anyone-expected
    - **Carbon emission are rising**...(despite all those smart meters)
    - https://www.carbonbrief.org/analysis-global-co2-emissions-set-to-rise-2-percent-in-2017-following-three-year-plateau
- The ecological impacts of **online meetings: www.ourweb.tech/letter-44/**
- See the following research and **solutions-focused climate change** discussion on Twitter among leading EMF scientists: https://twitter.com/ahosmikko/status/970654660741730304

# Solutions

There are four types of solutions for the general public. The first is to do what you can to **remediate EMF impact** where you live, work, learn and play. The second is to **educate your local community**. The third is to **educate your legislators** and help shape public policy. The fourth is to pursue **legal action** when the law is broken. Those who work in the industry can work toward biologically safe technology solutions.

**Quick On-Line Training**

Experts at the non-profit **Safer Screentime** have distilled the facts into an easy to learn on-line course that only takes @ an hour to understand the basics of this issue. You will learn the science, risks, what other countries are doing to protect their public, and medically recommended best practices for safer technology.

Please consider taking the following course and asking your loved ones and colleagues to do the same as a way to level-set with the facts. It will take the burden off of you to have to convince them this issue exists; then you can start the conversation on how to transition to safe technology. A printable safety tip sheet is available at the end with handy reminders, along with a list of credible references from each lesson. There is a small fee to help keep afloat:

- Safer Screentime Course (@ $15)

Bulk rates are available to train entire schools and workplaces.

**Community Conversations**

The award-winning film ***Generation Zapped*** (Best Documentary, DC Independent Film Festival; Winner, Women's Independent Film Festival; Official Selection, United Nations Association Film Festival) features leading world scientists, doctors, public health experts and patients who explain how wireless came to market, its impact on health and environment, and choices we can all make for safer technology.

Many communities have screened *Generation Zapped* at their local libraries or in their living rooms to start the technology safety conversation. It is also available via personal download, YouTube (with commercials) and DVD as well. Library streaming services Kanopy and Hoopla also offer *Generation Zapped*, as do other streaming outlets.

https://generationzapped.com/#gen-trailer

***Note: Subsequent to the film's release, the U.S. National Toxicology Program's $30M study reported "clear evidence" of tumors (cancer) and DNA damage. This was corroborated by another large study by Italy's Ramazzini Institute. See Cancers page. It is imperative we protect ourselves, our families and communities from wireless radiation until public policy catches up to the science.***

**Community Actions**

Americans for Responsible Technology has a tool kit to empower citizens to learn and take action:

- You can Join a Group if one exists in your area, or they provide resources to Start a Group, and a Tool Kit to organize your neighbors and loved ones. Once you have a group of residents well enough informed you can go to local town leaders and begin educating them so together you can ensure safe technology in your community.
- Note: **Do not go it alone**. One voice is too easily dismissed when the industry has been so successful at promoting the convenience benefits of wireless technology while suppressing the harm. However, a group of well-informed, diplomatic, persistent tax payers/voters/citizens who consistently show up to present safe solutions cannot easily be dismissed.
- The industry has our towns believing they have to roll over and let toxic technology in, but that is not true and many are pushing back. See 5G & IoT page. The Tool Kit contains a sample town-level ordinance for small cells, culling best practices from communities across the U.S. Give this to your town.
- **Wireless networks are highly profitable for industry but they are not as fast, secure, reliable or energy-efficient as wired systems**. The policy paper, "Re-Inventing Wires: The Future of Landlines and Networks," indicates the U.S. should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment. Give this to your town too.

- Likewise, the Tool Kit has **a sample bill** to examine health and environmental impacts of wireless radiation, especially in light of small cell infrastructure flooding our communities for 5G and the Internet of Things (IoT). Several states already have legislation introduced, and New Hampshire and Oregon have passed laws to investigate. Give the sample bill to your legislators and ask them to sponsor one in your state.
- This 2019 article, "Building science and radiofrequency Radiation: **What makes smart and healthy buildings**" is written by industry experts, engineers, doctors, researchers and building biologists. It is a good roadmap to safe technology in the built environment. Give this to your friends, loved ones, colleagues and towns. https://www.sciencedirect.com/science/article/pii/S0360132319305347
- Communities should aim for **ALARA**, As Low As Reasonably Achievable, which is a radiation principle used in Europe and by the CDC. Look to the Building Biology Instutute levels and/or the BioInitiative Report recommendations for **exposure limits**: https://slt.co/Downloads/Education/EMF-Exposure-Guidelines-For-Sleeping-Areas.pdf

**Measure Your Exposures**

Radiofrequency radiation detection meters allow you to measure the amount of radiation your devices are emitting:

- Check with your local Board of Health or Public Library to see if your community has one you can **borrow as Ashland, MA pioneered with the Acoustimeter.** Pittsfield and Sunderland, MA libraries now have the Safe and Sound Pro II Broadband RF Meter equivalent to the Acoustimeter. If not, perhaps there is a local grant fund to which you could apply to purchase meters for your community to use. Librarians are also welcome to contact the Environmental Health Trust which may have a small grant fund to help: ehtrust.org/emf-meters-at-u-s-libraries-to-measure-cell-tower-radiation/
- Engineer **Jeromy Johnson** of EMF Analysis lists his favorite meters here.
- **Magnetic Sciences offers meters to purchase or rent ($3/day) as well.**
- Here is a three-minute YouTube demonstration by building biologist Kathy Cooke of the radiation being measured in **Bluetooth-enabled hearing aids**.

**EMF Exposure Standards & Guidelines**, Various Sources from Around the World:

- http://www.lessemf.com/standard.html
- Biologically based exposure limit recommendations are provided in the *Seletun Scientific Committee Resolution:* **Scientific Panel on Electromagnetic Field Health Risks: Consensus Points, Recommendations, and Rationales**
- **Physicians for Safe Technology** also lists them, along with conversion charts for the various measurement standards: https://mdsafetech.org/conversion-and-exposure-limits-emr-emf/
- Manufacturers should be held accountable for making products that do not pulse RF continuously. JRS makes ECO Wireless Routers that switch to an **RF-free standby mode** when no wi-fi devices are connected, and Apple is working on products designed for human safety: https://mdsafetech.org/conversion-and-exposure-limits-emr-emf/
- https://www.patentlyapple.com/patently-apple/2020/09/an-apple-patent-reveals-their-wireless-5g-nr-sub-6-ghz-architecture-designed-for-human-safety-while-remaining-powerful.html?fbclid=IwAR0Ll6v6ESqmyko3tocfjhrwJlTd6IPM8E4ROCQddLNr6BjJ7RI3Xb2k0Wg
- In the U.S. you can gain an understanding of **the number of cell towers and antennas in your area** through the AntennaSearch website: http://www.antennasearch.com/

- The 2012 BioInitiative Report offers the following **recommendations** in their Conclusions section:
- DEFINING A NEW 'EFFECT LEVEL' FOR RFR: On a precautionary public health basis, a reduction from the BioInitiative 2007 recommendation of 0.1 uW/cm2 (or one-tenth of a microwatt per square centimeter) for cumulative outdoor RFR down to something three orders of magnitude lower (in the low nanowatt per square centimeter range) is justified.
- A scientific benchmark of 0.003 uW/cm2 or three nanowatts per centimeter squared for 'lowest observed effect level' for RFR is based on mobile phone base station-level

studies. Applying a ten-fold reduction to compensate for the lack of long-term exposure (to provide a safety buffer for chronic exposure, if needed) or for children as a sensitive subpopulation yields a 300 to 600 picowatts per square centimeter precautionary action level. This equates to a **0.3 nanowatts to 0.6 nanowatts per square centimeter as a reasonable, precautionary action level for chronic exposure to pulsed RFR**.

- These levels may need to change in the future, as new and better studies are completed. We leave room for future studies that may lower or raise today's observed 'effects levels' and should be prepared to accept new information as a guide for new precautionary actions.

The following websites also offer ways to safeguard against EMFs:

- The **Baby Safe Project** provides a clear overview and steps to reduce exposure to wireless radiation, applicable to the general public as well as pregnant women and their fetuses: http://www.babysafeproject.org/
- Camilla Rees, MBA, Founder www.ElectromagneticHealth.org and Campaign for Radiation Free Schools (Facebook); Co-author with Magda Havas, PhD of "Public Health SOS: The Shadow Side of the Wireless Revolution" offers **50+ EMF Safety Tips**: http://electromagnetichealth.org/electromagnetic-health-blog/50-tips/
- Dr. Devra Davis, Nobel Peace Prize Co-Laureate and renown scientist, founded **Environmental Health Trust**, which offers a wealth of information on wireless radiation: https://ehtrust.org/
- The Environmental Health Trust also shares the Collaborative for High Performance Schools' ***New Construction and Renovation Criteria' Low-EMF Best Practices***:

*http://ehtrust.org/wp-content/uploads/2015/12/US-CHPS_Criteria_2014_Low-EMF-Criteria102314.pdf*

- EHT also offers **free downloadable posters, information cards and fact sheets** you can share with others:

*http://ehtrust.org/resources-to-share/printable-resources/*

- The **American Academy of Pediatrics** offers a Family Media Plan wizard to help establish thoughtful and appropriate media use in line with family values: https://www.healthychildren.org/English/media/Pages/default.aspx#home
- See the Safer Screentime blog for ways to **hard-wire an iPad or iPhone, or an Android device**: https://www.saferscreentime.org/blog/
- Responsible iPad Use in Classrooms offers an **OctoWired solution to hard-wire iPads and other tablets**: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoxMjEzNGRmZWY1ZjUwZTk
- The National Association for Children and Safe Technology (NACST) is a parent based organization dedicated to safeguarding children's health and well being. They offer **up-to-date information and opportunities for advocacy to help protect our children**: http://www.nacst.org/welcome.html
- You may wish to join the **Campaign for Radiation Free Schools facebook page** to receive updates on EMFs: https://www.facebook.com/groups/110896245588878/
- No Radiation for You aims to help you "**Know, Monitor, Reduce, Protect**": http://www.norad4u.com/knowledge
- **Wi-fi Radiation: How to Protect Yourself**: http://www.electricsense.com/3544/wifi-radiation-how-to-protect-yourself/
- GEOVITAL Academy is an Austrian based natural health clinic that has developed shielding solutions and assessment protocols based on its experience with patients and their health recoveries, over the last 35 years. They have their own **shielding paint (T98), fabric, shielding mesh and circuit cut-off switches**, and are expending their network of consultants globally: www.en.geovital.com
- WikiHow offers the following **tips for cell phone use protection**: http://www.wikihow.com/Protect-Yourself-when-Using-a-Cell-Phone
- This **Huffington Post** article recommends banning or limiting children's technology exposure by age: http://www.huffingtonpost.com/cris-rowan/10-reasons-why-handheld-devices-should-be-banned_b_4899218.html

- Zone'in Programs, Inc. offers **solutions for families, educators and clinicians to help manage technology with healthy living**: http://www.zonein.ca/
- There are plug-and-play devices on the market that allow you to plug a **DLAN adapter** into a wall socket and then an Ethernet cable into your device. This saves having to run Ethernet cables in the wall to each room, but this **Ethernet over Powerline (EOP)** solution looks to be biologically hazardous: https://en.geovital.com/ethernet-over-power-line-eop-powerline-powerlan-and-health-effects/
- It may also cause interference with other frequencies, such as transistor and citizen's band radios which many rely on for communication in remote areas: https://www.teltarif.de/powerline-devolo-kurzwelle-test/news/59169.html?page=2

**Educate Your Community**

Please, use your voice if this issue matters to you: at the grass roots level, do your research then talk to your loved ones and acquaintances, see what folks know about EMFs. Feel free to share this site with them.

Here are steps you might consider to act locally:

- **Purchase or rent a meter** so you can show people what the issue is, maybe share the cost with a friend(s) who is also concerned. I paid $110 through Amazon for the Trifield 100XE EMF Meter. Later, I learned this meter is good for identifying dirty electricity but does not measure the digital spiked pulses which are biologically harmful, so I took a deep breath and paid $400 for an Acoustimeter RF Meter Model Am-10. It has been well worth the investment in both remediating my own home, work, car and leisure spaces as well as giving demonstrations to others new to the conversation. I have since learned the Cornet is a nice consumer level meter and StopSmartMeters.org is offering them for @ $140, well below what Amazon charges. The Safe & Sound Pro 2 meter was recommended at the EMF Medical Conference for health care practitioners to loan out to their patients.
- In your town, **contact your local leaders** (school committees, health boards, libraries, family physicians) and get the conversation started or join an existing one. It's going to take a little time for folks to get their heads around EMFs if they're just learning about this issue. Be patient, but persistent as the damage is being done now. Being able to

demonstrate with an EMF meter really brings it home. I started the conversation in Ashland, MA in 2013, and in 2014 Ashland Public Schools implemented Best Practices for Mobile Devices. Our staff and students are trained to always keep devices on a surface other than their bodies, to pre-download applications and turn off wi-fi when not needed, and to keep at least 12" from screens. **See attached for our training materials**: slides used with staff on opening day, a slide used with staff hired after the start of the school year, and a sign laminated and posted in every K-12 classroom.

- Industry-led solutions don't have to be the only solutions. Westminster, Maryland built their own hard-wired fiber-optic internet access system through a public-private partnership: https://www.youtube.com/watch?v=z1b8-AaBzok&feature=youtu.be&t=42m57s.
- One polite, diplomatic voice can make a difference, especially when so many others have done so much work around the world already to scientifically prove the health risks. Our local public servants' in-boxes are too swamped these days to meaningfully open this conversation via email, so **scheduling 1:1 meetings with key decision makers and talking them through the issue will likely be your best bet**. Then you can follow up via email with supporting information. Note, fired-up emotion will only give them reason to doubt you and they may shut down; do your best to be pleasant and factual so you don't trigger their innate fight, flight or freeze response.
- Following is a **12-minute video of my update to the Ashland Public Schools' School Committee** in 2016 after the U.S. National Toxicology Program confirmed electromagnetic radiation causes cancer: https://www.youtube.com/watch?v=ELkPq2Y1qes&feature=youtu.be
- The video below is my initial **33-minute conversation with the Ashland, MA Board of Health**. Rather than raising this issue through the public comments section of a meeting, you may wish to first meet with the chair of your local health board to educate, then request that EMFs and public health be added to an upcoming meeting agenda so proper time can be allocated to educate the community. Also ask that your local cable TV station or another source videotape the meeting so you can later share it with your community: https://www.youtube.com/watch?v=9T-4Aj6gb7A

- A parent in Pepperell, MA, found my work and we presented to his schools and health board too. Their cable station wanted to help educate the public and invited us to create **a five-part series, The Dangers of Wi-Fi**. To view on YouTube, click below; links to documents referenced in the series are given in each video description: https://www.youtube.com/playlist?list=PLMAz9ZRXjYmpbGE51zvScTaphFPybdGl2
- Click below for a flyer with the links that you can **share with your local cable station** and ask them to consider airing it in your community too: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyZTFjZmJkNDQzZWFlNzkw
- In 2015 I applied for and was awarded a grant to place an **Acoustimeter in circulation at the Ashland Public Library** so our residents can borrow it to measure and remediate wi-fi radiation in their spaces. Our local cable-TV station, WACA, created a public service video demonstrating how to use it: https://vimeo.com/159873631.
  Today, citizens are asking their libraries to place a radiofrequency radiation meter into circulation in their Library of Things collection. The Environmental Health Trust may be able to help libraries with a tight budget: ehtrust.org/emf-meters-public-libraries/
- Our Friends of the Ashland Library also hosted **a six-part film and discussion series titled, "Electromagnetic Radiation (EMR) and Health"** to educate the public: www.ashlandfarmersmarket.org/wp-content/uploads/2016/01/2015-16-The-Wif-Fi-Film-Series-Handout-revised6.pdf
- This site shares **a sample letter from a concerned parent to a school** but a face-to-face conversation will be best to start. Folks are so busy that emails often go unread: http://www.electricsense.com/4608/how-to-stop-wifi-from-being-introduced-into-your-kids-school/

**Educate Your Legislators**

While we can do our best to remediate our personal spaces now, and open the conversation in our communities, many will fail to act to protect our health until our Federal Communication Commission policies change or state laws are put in place. Please ask your legislators to ensure our government policies are changed soon. At the federal level, our FCC standards are supposed to be under formal review but the FCC has failed to respond to a court order and the court

failed to give them a deadline.

Medical and environmental experts are urging the FCC to set public health standards that protect our citizens and our planet, but corporate interests may influence the outcome otherwise. If we look at how other public health issues have been handled at the federal level, like smoking, asbestos, or genetically modified foods, we know it can take decades for our country to do right by its citizens instead of being influenced by powerful corporate stakeholders.

In the meantime, manufacturers and expert marketeers will continue to create an artificial need to buy the latest and greatest wi-fi device and uninformed consumers will continue to purchase them. Former FCC Chairman Tom Wheeler secured the go-ahead to bring 5G to market, which will bring faster data speeds but also requires millions of small cell antennas be placed in our municipalities and neighborhoods. Our legislators likely do not understand that these expose our citizens to biologically hazardous microwave radiation 24/7/365.

- **Reach out to your** State and Federal Legislators and let them know about this issue. They usually hold office hours where you can go in and speak to them directly in your district. Consider purchasing an EMF meter so you can demonstrate how much radiation is coming out of their own laptops, iPads, cell phones, etc. Ask for their help in creating swift solutions; they represent us and if they don't hear from us how will they know what we need? I know it made me nervous the first time I spoke up about an issue that was important to me, but most Senators and Representatives truly do want to hear from their constituents. **Public input is critical to giving them voice to propose changes.** Don't go it alone though, bring other voters into the fold first. I offer free public education webinars each month to help provide the education.
- I took my meter to Massachusetts State Senator Karen Spilka's community office hours in a local coffee shop, knees knocking, and asked to measure her cell phone and her aide's laptop. Both emitted radiation so high it was literally off the chart. She put me in touch with a staff member and together we introduced legislation to start the conversation and raise awareness of wi-fi radiation health risks. Other citizens have educated their legislators on this issue too and there have been up to 20 Massachusetts

**bills** in a given session addressing several aspects of EMFs and public health. See the most recent ones here.

- **Other states** are taking action too, New Hampshire and Oregon have already passed bills to investigate wireless radiation. The Oregon process was corrupted, but NH succeeded in publishing a groundbreaking commission report documenting the harm and making 15 recommendatins to transition to responsible technology deployment. Industry has thus far derailed all attempts to enact the commission's recommendations.
- It's important to ask how your legislature works. Do they address important issues as they come up as New Hampshire has done, or do they have **legislative priorities** already established at the start of each session and keep their attention on those? If it's the latter, ask what those strategic imperatives are and see how you can dovetail the EMF issues into their priorities.
- Americans for Responsible Technology offers a **sample state law** any state can customize and introduce, along with other resources you can use from their Tool Kit.
- The FCC in 2013 stated in ET Docket No. 13-84:

The FCC looks forward to developing a complete record by soliciting the input of qualified expert agencies and organizations **and the public**, to determine whether the current rules and policies should remain unchanged, or should be relaxed or tightened.

The FCC has received over a thousand formal submissions, which can be viewed in their raw state here. Dr. Joel Moskowitz of the University of California, Berkeley has organized a selection of them here for easier reference. However, years have gone by and the FCC has failed to update the allowable radiation levels to mirror science and protect the public; instead, they continue to rush to be first-to-market with new untested wireless technology like 5G.

If this issue is important to you, please use your voice. Americans for Responsible Technology has built the Tool Kit to provide you with credible resources to do so.

- Encourage the development of biologically safe mobile technology. Scientists in China are investigating communication without particle transmission; any new technology must be biologically safety tested before coming to market still:

https://www.sciencealert.com/scientists-have-achieved-direct-counterfactual-quantum-communication-for-the-first-time

# For Health Care Providers

Health care providers around the world are already treating patients for wireless radiation illnesses. See the following for professional training opportunities, training for your patients, and resources to share. See also the page on EHS.

**Health Care Professional Training**

- The first large-scale U.S. **EMF Conference** was held in California in September 2019 with 15 Level 1 continuing medical education (CME) credits offered.
- A second international **EMF Medical Conference** was held in January 2021 offering **24.5 CMEs**. **CE credits were also added for nurses**. The opportunity to earn credits has expired but the self-paced training is now available on-line at no cost though donations are appreciated. Health care professionals learn to recognize, diagnose, treat and prevent electromagnetic frequency (EMF) illnesses. Lectures also include state, local and international public policy as well as actions taken by citizens and medical professionals to address the root of the problem and ensure safe technology in their communities: https://emfconference2021.com/.

  Here is a letter one can give to peers, medical school professors and one's own health care teams to invite them to be trained on this critical new area of health care. All can watch the videos on YouTube or Vimeo at one's own pace!

**Professional Resources**

See the following resources to help understand the science, symptoms, diagnosis, treatment and prevention protocols:

- The U.S.-based **Physicians for Safe Technology**:

https://mdsafetech.org/

- The internationally-based **Physicians' Health Initiative for Radiation and Environment** (PHIRE):

http://phiremedical.org/

- Environmental Health Clinic, Women's College Hospital, University of Toronto, Canada published **Clinical Practice Guidelines for EHS** - Proceedings from a Symposium on the Impacts of Wireless Technology on Health: https://www.womenscollegehospital.ca/assets/pdf/environmental/Clinical%20Practice%20Guidelines%20for%20EHS%20and%20Symposium%20Proceedings%20-%20Final.pdf
- The Electrosensitive Society presents the **ESS Doctors Series**, lectures given by doctors currently diagnosing and treating EHS: www.electrosensitivesociety.com/ess-doctors-series-2022/
- The Electrosensitive Society has been successful at implementing **electromagnetic hygiene in 12 different Canadian hospitals** which have provided access for those disabled in the presence of EMF/RF. Sheena Symington has facilitated hospital appointments, 3-week hospital stays and surgeries. This outlines how hospitals can do this: https://www.electrosensitivesociety.com/how-hospitals-can-accommodate-patients-who-have-ehs/. See slides specifically **for doctors**: https://www.electrosensitivesociety.com/wp-content/uploads/2023/02/Doctors-Slides-Electromagnetic-Hygiene-Feb-2023-Havas_Symington.pdf
- The **first medical textbook** is now available, Panagopoulos DJ (Ed.). (Dec 30, 2022). *Electromagnetic Fields of Wireless Communications: Biological and Health Effects* (1st ed.). CRC Press. doi: 10.1201/9781003201052: https://www.routledge.com/Electromagnetic-Fields-of-Wireless-Communications-Biological-and-Health/Panagopoulos/p/book/9781032061757
- The ***Alliance of Nurses for Healthy Environments Textbook of Environmental Health in Nursing 2nd Edition*** includes a *A New Form of Environmental Pollution: Wireless and Non-Ionizing Electromagnetic Fields*, p. 136-160 (starting on p. 144 in the digital file). Free download: envirn.org/e-textbook/?eType=EmailBlastContent&eId=183702a2-ce4a-4df7-b20d-6c0edefe4aa7

**Training Patients and Staff**

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- Oftentimes when one is diagnosed with microwave sicknesses, it can be difficult to understand and even harder to explain to loved ones and colleagues.
    - The non-profit Safer Screentime would like to help. Experts have distilled the science, risks, what other countries are doing to protect their public, and medically recommended best practices for safer technology. They have put these into an easy to learn course that can be completed on-line in about an hour.
    - The course quickly level-set with the facts. It will take the burden off of patients to have to convince loved ones and colleagues their health issue really exists; once everyone receives basic training, they can then begin the conversation on how to transition to safe technology:
        - **Safer Screentime Course** (@ $15, helps to cover operating costs of non-profit)
    - This course is also good to train non-clinical office staff on wireless radiation risks.
    - Bulk rates are available to train entire practices, schools and workplaces.
- The Massachusetts Breast Cancer Coalition has created **age-appropriate prevention curriculum** for teachers and students in elementary, middle and high school: mbcc.org/lets-talk-prevention-actions-you-can-take-student-modules/

**Printable Resources for Your Office**

You are welcome to send the following resources to your preferred print shop so you have materials on hand to give to your patients:

- The **Environmental Health Trust** offers post cards, posters, flyers, brochures, fact sheets, wallet cards and more: https://ehtrust.org/resources-to-share/printable-resources/

Massachusetts for safe TECHNOLOGY

# For Engineers & Physicists

When I first learned about biological effects from wi-fi's low-level radiation, engineers and physicists in my community had a hard time believing there could be a hazard at the non-thermal level. I am very grateful to the following for providing the evidence of harm. These references will help you to understand that the theory which indicates we must create heat to cause harm is now outdated. This means our FCC guidelines, which are based only on thermal effects and do not take into consideration the non-thermal effects, do not protect the public.

- This document shows that cellular and wireless technologies are on the **electromagnetic radiation spectrum** as non-ionizing microwave radiation.
- 2025: Dr. Paul Heroux, **The Collission Between Wireless and Biology**: www.sciencedirect.com/science/article/pii/S2405844025006474
- **New Hampshire legislature** passed a law to investigate the health and environmental impact of EMFs, especially 5G. Their commission, composed of engineers, physicists, medical doctors and others, investigated for a year and issued a groundbreaking report in November 2021 identifying wireless risks, **conflicts of interest with industry and federal agencies, and 15 recommendations for safer technology.**
- NH commission member **Kent Chamberlin, Ph.D., Chair and Professor Emeritus, University of New Hampshire, Department of Electronic and Computer Engineering**, provides facts to counter industry disinformation during a Lenox, MA Board of Health meeting: https://www.berkshireeagle.com/news/central_berkshires/lenox-wireless-safety-curtis/article_aa1b6d84-04ec-11ec-b517-97d4a38105c9.html?fbclid=IwAR1RO9UNaIuavVkElibzKYJjhoSPnCttxnW8tNfmhaVp4aJh2712vKHu6vU
- The FCC failed to do a similar comprehensive review of the 11,000 pages of scientific evidence presented to them, and were sued by the Environmental Health Trust and Children's Health Defense. In 2021 the **D.C. Circuit Court of Appeals ordered the FCC to prove their radiation exposure limits are safe for the public and the planet**: https://ehtrust.org/transcript-of-press-conference-following-eht-federal-court-victory-over-fcc-wireless-radiation-safety-limits/ https://childrenshealthdefense.org/seeking-justice/legal/chd-v-federal-communication-commission-fcc/#watch
- In 2016, the IEEE acknowledged biological effects of non-ionizing microwaves in the ***IEEE Power Electronics Magazine*** article, "Some Effects of Weak Magnetic Fields on Biological Systems: RF fields can change radical concentrations and cancer cell growth rates."

- In November 2018, the **U.S. National Toxicology Program (NTP)** released peer-reviewed findings in a $30 million study, commissioned by the U.S. Food and Drug Administration, indicating **"clear evidence" cell phone radiation causes cancerous tumors and additional findings of DNA damage: https://ntp.niehs.nih.gov/results/areas/cellphones/**
- Hear directly from NTP study designer **Senior Toxicologist Dr. Ronald Melnick** on why we can no longer assume any wireless technology is safe without proper testing in advance.
- There are thousands more **peer-reviewed published studies** showing harm: https://sites.google.com/site/understandingemfs/the-science
- NH Rep. Patrick Abrami is an engineer. When a constituent told him about harm from EMFs, he was curious, did his due diligence and had a major WOW moment. Then he wrote a groundbreaking bill, **H. 522, for NH to investigate the health and environmental impact of EMFs and especially 5G**. It passed into law in just seven months: http://gencourt.state.nh.us/bill_status/bill_status.aspx?lsr=0261&sy=2019&txtsessionyear=2019&txtbillnumber=hb522&sortoption=&q=1
- A NH Commission was formed and brought in experts to testify, reviewed published literature, examined what other countries are doing to protect their citizens. Several of the members were engineers and physicians, see the **final 2020 report with 15 recommendations** here: https://mailchi.mp/bcad2bc679bb/nh-legislature-releases-groundbreaking-report-on-emf-5g-harm
- In 2019 Michigan **Senator Patrick Colbeck, an aerospace engineer** released videos of RF experts who presented at his **Wireless Technology: Benefits and Risks** forum. Click below to hear directly from leading scientists, doctors, engineers, educators, lawyers and more. Each presentation is @10 minutes and each panel discussion is @20 minutes: https://www.youtube.com/watch?v=H5f-qDbVvCQ&list=PLzxSfWG1ZjiB71mHLQQDUQbE8jjQtiZj0
- In 2018 **IEEE Microwave Magazine published, "Clear Evidence of Cell Phone RF Radiation Cancer Risk" by Dr. James Lin:** https://ieeexplore.ieee.org/document/8425056/?part=1
- Dr. Lin's article is also available in full here: http://www.avaate.org/IMG/pdf/lin_2018.pdf
- In 2025 Dr. Lin documented the **World Health Organization** is a captured agency in **IEEE Microwave Magazine, "**World Health Organization's EMF Project's Systemic Reviews on the Association Between RF Exposure and Health Effects Encounter Challenges [Health Matters]" www.rfsafe.com/wp-content/uploads/2024/12/World-Health-Organizationx2019s-EMF-Projectx2019s-Systemic-Reviews-on-the-Association-Between-RF-Exposure-and-Health-Effects-Encounter-Challenges-Health-Matters.pdf

- The scientific community is calling for the Federal Communications Commission (**FCC**) and the International Committee on Non-Ionizing Radiation Protection (**ICNIRP**) to establish RF public exposure limits that protect public health. The Environmental Health Trust provides extensive information: https://ehtrust.org/?s=fcc+icnirp
- **Dr. Martin Pall**, wireless radiation expert, explains that it is not necessarily the power level that is the main issue. The spiked, erratic, digital radiofrequency radiation pulse that carries data is the hazard. Wireless technology sends many bursts of pulsed electromagnetic radiation per second, and this constant, erratic square-wave pulse is what is damaging our cells at the **voltage-gated calcium channels** (and other points), and creating a host of illnesses in our bodies. He talks us through it here in a 16-minute lecture: https://www.youtube.com/watch?v=3kQQyU8NHv8
- In the link to Dr. Pall's work above, we learn that wi-fi radiation causes a particularly damaging free radical called **peroxynitrite** that leads to a host of health issues. In the following paper, a researcher has pulled together U.S. government database statistics on 40 diseases that have more than doubled in the U.S. since 1990. The common denominator is that all are tied to peroxynitrite. Peroxynitrite is caused by wireless radiation and other environmental toxins. Please see this report, it identifies the skyrocketing rates of autism, Alzheimer's, bi-polar, chronic fatigue, sleep disruption, thyroid disease, social and emotional issues, and more: https://www.researchgate.net/publication/303673576_The_Root_Cause_in_the_dramatic_rise_of_Chronic_Disease.
- By simply using hard-wired technology instead of radiation-emitting wireless, we could dramatically reduce our risks of these diseases. If we don't, the trajectory is that we will continue to become sicker and sicker as a nation, and as a world.
- **Columbia University's Dr. Martin Blank** speaks on behalf of more than 200 non-industry funded electromagnetic field (EMF) scientists and engineers from around the world who are urging the United Nations and World Health Organization to protect the public from wireless radiation. Please see the International EMF Scientists Appeal here, and Dr. Blank's three-minute video introduction: *https://www.emfscientist.org/*
-
    - **Electrical Engineer Professor Om Ghandi, Ph.D.**, has proven that **children and fetuses absorb more radiation** than even adults as their brains are more aqueous and their skulls are thinner. You can see his work and contact him here with questions: https://faculty.utah.edu/u0029832-Om_P._Gandhi/bibliography/index.hml
    - The **BioInitiative Report** contains peer-reviewed, non-industry funded studies from around the world that show biological effects at the non-thermal level. To

access searchable summaries of the research done, see **Dr. Henry Lai's** work at: http://www.bioinitiative.org/research-summaries/

- Silicon Valley engineer **Jeromy Johnson** became ill when a bank of utility "smart meters" was installed beneath his living quarters. This set him on a journey to understand the biological effects of electromagnetic radiation. He discusses the issue and offers solutions in this 16-minute **TedX-BerkeleyTalk**: https://www.youtube.com/watch?v=F0NEaPTu9oI
- **Jeromy Johnson** also published the following article in **The Bent**, the National Engineering Honor Society magazine. The organization has a membership of 87,000 engineers across the country. The article succinctly summarizes how EMF science now shows that wireless technology can harm our health and offers solutions for our society: https://www.emfanalysis.com/new-paradigm-emf-science/

- Retired Harvard trained **U.S. Government Physicist Dr. Ronald Powell**, from Maryland, has issued open letters for schools and libraries to begin protecting their citizens from wireless radiation: http://www.scribd.com/doc/289778053/Message-to-Schools-and-Colleges-about-Wireless-Devices-and-Health http://www.scribd.com/doc/300834441/Message-to-Public-Libraries-About-Wireless-Devices-and-Health

- Dr. Powell has also authored several papers to help consumers and public agencies understand the implications of **utility "smart meters"** including illness symptoms, questions to ask your energy company, FCC limits, a ranking of smart utility meter types and more: http://www.scribd.com/doc/291507610/Documents-on-Wireless-Technology-and-Health-by-Ronald-M-Powell-Ph-D

- **Dr. Barrie Trower**, Royal Navy microwave weapons expert and physicist from the U.K., explains how microwave radiation is used as a human warfare weapon. He indicates wireless radiation is particularly damaging to the DNA of fetuses and children, and should not be allowed in schools: https://www.youtube.com/watch?v=z99_SzoXZdY

- Technology should not be rolled out until it is proven biologically safe but that did not happen with wireless and cellular products. **Harvard University's Captured Agency report** explains how the telecommunications industry marketed products without

proper safety testing and are now deploying big tobacco tactics to suppress evidence of harm: http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf

- When **Microsoft Canada President Frank Clegg** retired, he sought out a dozen of the world's top scientists in electromagnetic fields (EMFs). He came back realizing our electromagnetic radiation public exposure limits in North America are not safe. Please see this briefing which he and **Nobel Peace Prize co-laureate Dr. Devra Davis** gave to the **Massachusetts legislature**. Mr. Clegg believes, given a nudge, the industry can absolutely create technology that is not only safe, but faster and less expensive. Please see their talk here: https://vimeo.com/134411701
- This **five-part cable series** explains this complex issue in what some have found to be a very down-to-earth way. When viewed on YouTube, you will be able to access links below each video to the scientific evidence and other important resources. Each episode averages just 30 minutes so you'll be able to digest new information before moving onto the next episode: tinyurl.com/Dangers-of-Wi-Fi
- This issue didn't really sink in for me until I could see and hear it for myself. I invested in **a $400 Acoustimeter** and my local cable station helped do a walk-through video in my home. We identified the wireless radiation emission sources, measured them, and offer solutions for safe technology access: https://vimeo.com/159873631
- I hope you will really examine the peer-reviewed, non-industry funded evidence that wireless technology is biologically hazardous, and that our world scientists recognize this as the biggest public health threat we have ever faced. It is tempting to want to believe the **industry spin in popular magazines and industry trade journals**, but the independent peer-reviewed, published science, combined with medical cases, should be our sources of credible information.
- Please explore the rest of this research repository to launch your investigation, particularly the pages on 5G & IoT, Cell Towers, Utility "Smart: Meters, and Impact on Children. Don't hesitate to reach out to the many experts included herein, they would be honored to speak with you.
- Once you've done your independent review, I hope you will **use your voice and talents to help be part of the solution**.
- Here's the roadmap: the policy paper, **"Re-Inventing Wires: The Future of Landlines and Networks**," details why the U.S. and our communities should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment.

# For Municipal Leaders

This page is designed for public servants such as select boards, city councils, town managers, mayors, governors, state representative, senators, zoning boards, planning boards, building inspectors, public health agents, school administrators, librarians, senior center directors and others in whose hands the public has entrusted their welfare.

- For an overview of the wireless radiation issue, you are welcome to see a presentation to a **four-town board in Massachusetts**. My talk begins at 3:27. Post-note: two of the towns have since adopted the Burlington, MA Small Cell Policy (discussed further down the page):
  *https://www.youtube.com/watch?v=OYzUyWPHc20*

- The following document provides **links to the resources** presented. Please feel free to share widely:
  *https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDozNmFlN2Y4MjFmYjJlOTVj*

**The Issue: Wireless Technology is Biologically Hazardous and Needs Risk Management**

- 
  - **New Hampshire legislature** passed a law to investigate the health and environmental impact of EMFs, especially 5G. Their commission, composed of engineers, physicists, medical doctors and others, investigated for a year and issued a groundbreaking report in November 2021 identifying wireless risks, **conflicts of interest with industry and federal agencies, and 15 recommendations for safer technology.**

  - NH commission member **Kent Chamberlin, Ph.D., Chair and Professor Emeritus, University of New Hampshire, Department of Electronic and Computer Engineering**, provides facts to counter industry disinformation during a Lenox, MA Board of Health meeting:
  - https://www.berkshireeagle.com/news/central_berkshires/lenox-wireless-safety-curtis/article_aa1b6d84-04ec-11ec-b517-97d4a38105c9.html?fbclid=IwAR1RO9UNaIuavVkElibzKYJjhoSPnCttxnW8tNfmhaVp4aJh2712vKHu6vU

- The FCC failed to do a similar comprehensive review of the 11,000 pages of scientific evidence presented to them, and were sued by the Environmental Health Trust and Children's Health Defense. In 2021 the **D.C. Circuit Court of Appeals ordered the FCC to prove their radiation exposure limits are safe for the public and the planet**:
  https://ehtrust.org/transcript-of-press-conference-following-eht-federal-court-victory-over-fcc-wireless-radiation-safety-limits/
  https://childrenshealthdefense.org/seeking-justice/legal/chd-v-federal-communication-commission-fcc/#watch

- The message from the FCC lawsuit is don't wait for public policy to catch up to the science. Take action TODAY to learn about this issue and protect your communities.

- In 2018 the **U.S. National Toxicology Program** reported findings from a **16-year $30M study on wireless radiation**, specifically, 2G and 3G cell phone radiation on rodents. Similar findings have been reported in 4G studies as well. Here are key facts to know:

- The particular rodents chosen mimic what happens in humans at the cellular level.

- **Cell phone technology uses the same microwave spectrum radiation as all wireless devices**, so what is reported in the NTP study holds true for wireless routers, laptops, tablets, printers, mice, Bluetooth, wireless earbuds, baby monitors, gaming devices, sound boards, virtual reality goggles, wearables, internet-of-things, utility "smart" meters, cell towers, small cells and everything else that is transmitting data wirelessly.

- 2G and 3G transmitted fewer data packets than what we have today with 4G, and soon 5G. This means **whatever the NTP study finds with 2G and 3G will be intensified with today's faster technology**. Some will say today's technology uses less power, which may be true, but it is not just the power level that is harmful. It is the nature of the signal. It is a spiked, pulsed, erratic square wave riding on top of the carrier wave. It is this pulsed signal peak hitting our biological cells constantly that is causing the damage.

- Our current FCC guidelines for public exposure to wireless radiation are based on the **thermal effect**, a theory that holds you must have enough heat to raise the temperature of the skin in order for there to be any harm. The NTP scientists did preliminary studies to see at what exposure level the temperature rose in the rodents, then they conducted the rest of the studies at levels below the thermal threshold.

- The scientists went in expecting they would find no evidence of harm at the non-thermal level. In their peer-reviewed findings, they instead found **statistically significant DNA damage, brain and heart tumors**. In the control rodents, they didn't.

- Hear directly from NTP study designer **Senior Toxicologist Dr. Ronald Melnick** on why we can no longer assume any wireless technology is safe without proper testing in advance.

- Cancer and DNA damage are just the tip of the iceberg. See the Science page for an understanding of other chronic diseases and short-term exposure effects found in **thousands of other peer-reviewed studies all over the world**. These include **infertility, autism, Alzheimer's, insomnia, chronic fatigue, headaches, nausea, tinnitus, tachycardia, skin rashes, bloody noses/ears, digestive issues, cognitive impairment, learning and memory problems, behavior issues, and more**.

- The science shows the developing brains, nervous system, bones and immune system of **children and fetuses** are particularly vulnerable to wireless radiation. The **elderly and anyone with an existing health condition** are at greater risk too.

**Why We Don't Know**

The telecommunications industry brought wireless technology to market with **no safety testing**:

- **The guidelines that govern exposure were set in 1996 based only on heat exposure from one device. They are not standards, just guidelines**.

- The guidelines were formed by engineers based only on the thermal effect for 30 minutes of exposure from one wireless antenna.
- Scientists and doctors who understand the biological impact of electromagnetic radiation on living cells were not consulted.
- **The guidelines have never been updated to account for the multiple antennas, devices and transmission towers constantly emitting radiation around us today**.
- The guidelines **do not account for long-term radiation accumulation effects** in our bodies.
- The guidelines were set based on a model of a military man in the 90th percentile of fitness; t**hey were never set for children, fetuses and women who absorb more**

**radiation due to their smaller sizes, nor were they tested for the elderly or those with existing health conditions**.

- In 2012 the **Government Accountability Office** instructed the FCC to "formally reassess the current RF energy exposure limit, including its effects on human health" and they failed to do so even after hundreds of public comments demonstrating harm were sent in from leading scientists, doctors, the American Academy of Pediatrics and others.
- After the NTP study results were released, the FDA, which commissioned the study, should have invoked the precautionary principle and warned the public but instead tried to downplay them. Dr. Jeffrey Shuren of the FDA told the FCC the public radiation exposure guidelines do not need to be changed. It turns out Dr. Shuren is married to a partner in a law firm that represents the wireless industry, and FCC chairman Ajit Pai is a former senior lawyer for Verizon.
- The FCC failed to do its own due diligence on the safety guidelines and formally closed the reassessment docket. See the **Legal Issues** page for lawsuits subsequently filed against the FCC by the Environmental Health Trust and Robert F. Kennedy, Jr.'s Children's Defense Fund.
- In 2000,T-Mobil, the German parent company of T-Mobile, commissioned the ***Mobile Communications and Health*** study which **identified many non-thermal biological effects well below public radiation exposure limit levels**. They recommended specific precautionary measures should have been taken, but they were not, and the industry continued to market hazardous products: *https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo3MTE4NThkYmY3NmUzMzc0*
- In 2015, Harvard University's Law School Center for Ethics published a report that chronicles how our government is protecting corporate profit over public health: **Captured Agency, How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates**.
- The same industries that lobbied to get laws passed to protect their financial interests also purchase much of our media advertising. The **media channels do not do true investigative journalism on wireless radiation as it could hurt their revenues**, so the public is only told of the benefits of wireless radiation but not the biological hazards. It took a lawsuit to force the California Department of Public Health to release a long-suppressed fact sheet on cell phone radiation. ABC News covered that story so there is hope the public may be informed yet.

- Please see the Manufacturers page for additional information.

**What This Means at the Municipal Level**
Unfortunately, without balanced information in the media, our municipal leaders didn't know any better when industry offered financial incentives to implement their products:

- We allowed cell tower, pole and building antennas to be installed, which **expose our citizens to wireless radiation 24/7/365**. See the International Journal of Occupational and Environmental Health article on cell towers which states, "We found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances < 500 meters from base stations." See the Cell Towers page for more.
- We allowed wireless systems to be installed inside our public buildings, including schools, libraries, senior centers, town halls, public safety buildings and recreational areas. This means **citizens cannot access public services without being exposed to hazardous radiation**. See papers finding adverse biological effects or damage to health from Wi-Fi signals, Wi-Fi-enabled devices or Wi-Fi frequencies (2.4 or 5 GHz).
- Some allowed **utility "smart" meters** to be installed on homes and businesses. This sets the infrastructure for the "smart" grid and Internet of Things (IOT). These devices emit toxic radiation 24/7/365 and also pose privacy and security issues. These meters leave us with no place to go for our bodies to cell repair and regenerate while we sleep. Some feel the impact with disrupted sleep, anxiety, depression, anger and other symptoms sooner rather than later. The biological damage accumulates causing long-term damage as well. See the Utility "Smart" Meters page.
- The industry is now pushing hard to install infrastructure for **5G and the Internet of Things (IoT)** without regard for health impacts, and aims to take away local municipal control. Applications are being submitted for "small cells" and "distributed antenna systems (DAS)". In some instances applications are bypassed and antennas are placed on wires, underground, under manhole covers and elsewhere. Each small cell comes with a refrigerator-sized power supply on the ground with hazardous chemical-laden batteries that can explode in fires, crashes, etc.
- Please note, in 2004 the **International Association of Fire Fighters** adopted a formal Position on the Health Effects from Radio Frequency/Microwave (RF/MW) Radiation in Fire Department Facilities from Base Stations for Antennas and Towers for the Conduction of Cell Phone Transmissions. They oppose them, "until a study with the highest scientific merit and integrity on health effects of exposure to low-intensity

RF/MW radiation is conducted and it is proven that such sitings are not hazardous to the health of our members."

They reaffirmed that stance in **California's 2017 Senate Bill 649** which would take away municipal home rule to place more wireless infrastructure in our communities, on poles in the public rights of way, at street level every 4 to 12 homes. They included an exemption in the bill: Section 2 "65964.2. (a)...(3) The small cell is not located on a fire department facility." Every citizen should have the same protections.

Physicians for Safe Technology includes extensive facts in **Firefighters Fighting Fires… and Now Cell Towers:** https://mdsafetech.org/2019/09/28/firefighters-fighting-fires-and-now-cell-towers/?=1&fs=e&s=cl

See also the **Firefighters & Mesothelioma Guide** to protect them from asbestos exposures: lanierlawfirm.com/mesothelioma/asbestos-exposure/occupational-exposure/firefighters/.

- The insurance industry recognizes wireless radiation as a leading risk. Lloyd's of London and others have put exclusions in their policies which may leave our **municipalities legally responsible for damages from fires, loss of health and property devaluation** due to the close proximity of cell antennas to homes, workplaces and schools. Here is one example: “The Electromagnetic Fields Exclusion ... is applied across the market as standard.” The exclusion includes: “Bodily injury, property damage, or personal and advertising injury.....provided that such injury or damage results from or is contributed to by the pathological properties of electromagnetic radiation.” CFC Underwriting, UK agent for Lloyd’s of London. See Legal Issues for more information.

**What the Industry Will Say**

The industry will provide information that on the surface seems to make sense, but there is more to the story. Here is what our public leaders will hear, and what else they should know:

- **Wireless radiation has never been proven harmful, and more studies are needed.** Profit-centered industries often use the tobacco industry playbook to create doubt and suppress evidence of harm. Many studies have been funded and designed by the industry to create conditions that will show no harm thereby creating doubt for the public so they will keep buying wireless technology. The Science and Cancers pages show the non-industry funded studies that prove wireless technology can cause cancer and other diseases. We have enough evidence of harm from independent scientists to take

action to protect our citizens. With lead, we had over 10,000 studies done before our government took action to protect the public. With electromagnetic radiation, we have over 25,000 already.

- **Electromagnetic radiation is a natural occurrence.** Yes, but man-made radiation goes far beyond our bodies' and our planets' natural load, to the 18th power higher. Not only are these signals interfering with our biological functions, they are also interfering with the navigation signals of our birds, bees and other living organisms. See the Planetary Impact page.
- **We have had man-made signals for a long time with no problem, including radio and TV.** Yes, but digital technology works differently. Regular radio and TV signals are carried on a continuous sine wave that our bodies can generally acclimate to unless we happen to be near the broadcast tower or have developed electrosensitivity (see Electrosensitivity page). With digital technology, there is a square wave that rides along on the rolling sine wave. This square wave carries digital data in short, sharp, erratic bursts of pulsed electromagnetic radiation. It is this pulsed radiation that is damaging to our cells. See Dr. Martin Pall's lecture on the Science page. See also the page For Engineers and Physicists.
- **The radiation drops off with distance so it's not a problem in our schools and buildings.** While the inverse proportion law of physics is true, it does not tell the whole story with wireless radiation. These digital signals are designed to go through walls, ceilings, floors and our bodies to make a connection between a device and a router/wireless access point or a cell tower. The radiation is most concentrated at the emitting source, so distance is your friend, but the disbursed radiation is still doing damage to our cells via the erratic, pulsed data packets traveling through the air, plus from the pulsing antennas in the devices with which the tower is connecting. It's a two-way microwave radiation system.
- **The public exposure is far below the FCC guidelines.** Those guidelines only represent the thermal level and were never safety tested. They do not account for the non-thermal, non-ionizing, low-level effects of wireless radiation. They also do not account for the combined toxic load from many simultaneous exposures, nor do they account for effects on vulnerable populations including fetuses, children, the elderly and those with known health compromises. The FCC allows manufacturers to produce products that emit radiation thousands of times greater than where the Science proves biological effects. See the Manufacturers page.

- **The World Health Organization (WHO) puts wi-fi radiation in the same category as coffee and pickles.** The WHO does not lightly place toxins in the Group 2B Possibly Carcinogenic to Humans category. There are set protocols to follow. There are certain Asian populations that developed cancer from eating a particular type of pickled vegetable so it belongs in this category due to the formaldehyde used in the pickling process. Coffee has been removed from this category and was there because of the chemicals used to grow coffee in the past. Also in the 2B Group are lead, chloroform, gasoline, diesel exhaust, BPA, thalidomide and many other toxic chemicals to which we would not expose our children or ourselves. We have safety guidelines around those, but at this point in history we do not yet have safety protocols for wireless radiation.
- Also worth noting, some of the experts who sat on the WHO's committee to assess wireless radiation in 2011 are now calling for it to be escalated to a known carcinogen based on subsequent scientific findings. The composition of the WHO committee has changed since 2011. The committee is now heavily weighted by those with industry affiliations, and is underrepresented by independent EMF scientists. More than 220 of our world's top scientists signed **an appeal to the WHO and the United Nations to protect the public from wireless radiation** in 2015 and nothing has been done. The scientists and authors of the BioInitiative Report in late 2016 submitted a letter of no confidence to the WHO, indicating the WHO EMF committee is industry biased and the members do not have the scientific, medical or public health credentials necessary to establish public safety. The Russian National Committee on Non-Ionizing Radiation Protection issued a similar letter in March 2017.
- In 2017, the International Journal of Oncology published a report explaining **the WHO has conflicts of interest** with industry and does not plan to take action to protect the public from non-thermal electromagnetic radiation, even though the scientific and epidemiological evidence of harm is well documented:

  https://www.spandidos-publications.com/10.3892/ijo.2017.4046

**Risk Management Solutions**

- Experienced telecom lawyer **Andrew Campanelli** indicates the industry provides our towns with fraudulent information to lead them to believe they have no recourse. He has taken more than 7,000 individual and municipal cases and won 75-80%. See this one-hour interview to learn what is legal and what questions to ask to protect our towns:
- https://www.youtube.com/watch?v=UtT6gVH584s&feature=emb_logo

Massachusetts for safe TECHNOLOGY

- Our health and that of our children and planet cannot wait for public policy to catch up to the science though as the harm is happening in real-time so it behooves us all to come up to speed on this issue and do what we can from where we are.
- The policy paper, "**Re-Inventing Wires: The Future of Landlines and Networks**," details why the U.S. and our communities should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment. Click here for a symposium podcast with experts.
- See the paper, **"Building science and radiofrequency radiation: What makes smart and healthy buildings"** written by retired Microsoft Canada President Frank Clegg with leading EMF scientists and medical doctors:
- https://www.sciencedirect.com/science/article/pii/S0360132319305347
- Our municipalities can help educate the utility companies and **ask for non-radiation emitting utility devices/meters**. Many of the line workers, engineers and management teams are not aware of the hazards to which they are exposed daily.
- The **International Institute for Bau-biologie® & Ecology** provides Standard of Building Biology Testing Methods (SBM 2008-C). In it you will see specific biologically based recommendations for Radiofrequency Radiation as well as the ELFs from power lines, etc., and other hazardous exposures.
- **Opt for hard-wired technology access, via fiber-optics or high speed cable and copper to the premises, using Ethernet cables inside with wi-fi turned off** in all public buildings.
- Industry-led solutions don't have to be the only solutions. Westminster, Maryland and others built their own hard-wired fiber-optic internet access system through a **public-private partnership**: https://www.youtube.com/watch?v=z1b8-AaBzok&feature=youtu.be&t=42m57s.
- The industry is trying to decommission our copper landlines and force migration to wireless infrastructure. Advocate to **keep copper land-line telephone service** available for at a minimum, emergency services. When power goes out, wireless goes down and cell phones cannot be charged. If there is no copper land-line access, residents cannot call for help. In addition, landline emergency calls pinpoint location of emergency, but cell calls do not; they go through a redirection and delay emergency response time. Copper landlines often hold up in natural disasters too whereas wireless antennas go down in fires and storms and emergency communication is wiped out.

- **Understand where each wireless communication facility is** located in and around your town, and when each lease expires so you can **negotiate better terms.** See antennasearch.com for a list of antennas and cell towers in your area. Insist that antennas be moved to at least a quarter-mile from neighborhoods, schools, parks and medical facilities. Scientists recommend a half-mile for the most vulnerable: children, fetuses, the elderly and those with existing health compromises. Work with the vendors to reduce power levels, and adopt eco-mode so a signal is only emitted when a device is looking for a handshake, rather than emitting 24/7/365. Encourage industry to develop biologically compatible wireless technology.
- Ensure **local by-laws protect residents, schools, businesses and recreational areas** with maximum setbacks from wireless communication facilities. Studies show **increased prevalence of adverse neurobehavioral symptoms or cancer** in populations living at distances < 500 meters (1,640') from base stations. Towns like Randolph, MA have already begun putting by-laws in place to retain local decision-making control for wireless communication systems as industry pushes to take that right away from our municipalities through federal bills like S. 3157 STREAMLINE Small Cell Deployment Act, S.19 MOBILE Now Act and S.88 DIGIT Act. Burlington, MA set policy that requires telecom applicants to recertify the equipment each year, and the town assesses a fee to cover the staff time to oversee the recertification process. Verizon withdrew their small cell applications to avoid setting precedent for a fee.
- **Educate and protect the public** which you serve. Host documentary films and community discussions. There is an award-winning film, Generation Zapped, which any community can bring in to start this important conversation. It features leading scientists, doctors and patients. Training is available for schools, families, and municipalities by the non-profit Safer Screentime which offers a quick on-line course on the science, risks and medical best practices for using today's technology more safely.
- **Provide radiation detection meters** for the community to borrow from the public library so they can measure and remediate microwave radiation emissions in their homes, offices, schools and leisure spaces. The Environmental Health Trust may be able to offer **grants to librarians** if needed: ehtrust.org/emf-meters-at-u-s-libraries-to-measure-cell-tower-radiation/
- Engage state-level health, utility, school and legislative leaders to **develop public policy to protect public health** and educate citizens. New Hampshire has already passed a law and aggressively investigated the health and environmental impact of EMFs and 5G. In their final report they called out the conflicts of interest with industry and the FCC, and

made 15 recommendations to inform and protect the public. Oregon passed an emergency law to investigate and protect school children.

- Ask your legislators to introduce and escalate passage of EMF bills. See what Other States are doing. Propose similar legislation in your state.
- Ask your federal legislators to **overturn the Telecom Act's Section 704** and address the health and environmental impact of wireless radiation. Montana introduced a bill with suggested language for small cell protections.
- 5GCrisis.com has a tool kit with a **model small cell ordinance to consider and a state bill** culled from successful risk management efforts across the country. Use these to protect your town and state.

# For Legislators

Massachusetts has led the nation for more than a decade with bills to address wireless radiation health impacts. Six bills were introduced this session:

- **S.2306 An Act relative to smart meters** is sponsored by Senator Michael O. Moore and assigned to the Joint Committee on Telecommunications, Utilities and Energy. S.2306 requires a **no-fee wireless meter opt-out** and includes an emergency pre-amble, "Whereas, The deferred operation of this act would tend to defeat its purpose, which is to maintain public health, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public health." This bill is in its sixth session. **It has been sent to study (died).** Senator Moore added it as an amendment to the Senate Energy bill, but it was not adopted -- few amendments were.
- **H.3551 An Act relative to smart meters** is sponsored by Rep. Estela Reyes in the House to mirror Senator Moore's Senate bill, and is also assigned to the Joint Committee on Telecommunications, Utilities and Energy. **The Committee advanced the bill but rewrote it to put the onus on the MA Department of Public Utilities to set a standard opt-out fee. All rate-payer protections were removed in what is now** H.5292. Referred to the committee on House Steering, Policy and Scheduling which has advanced it to the House Committee on Bills in the Third Reading. **Please sign this action alert to keep the bill advancing**.
- **Resolve S.216 Resolve relative to disclosure of radio frequency notifications** is sponsored by Senator Julian Cyr and has been assigned to the Joint Committee on Consumer Protection and Professional Licensure. Resolve S.216 requires an **investigation** and study by a special commission relative to disclosure of radio frequency notifications. This bill is in its fifth session. **Reported favorably by committee and referred to the committee on Senate Ways and Means.**
- **S.408 An Act relative to best management practices for wireless in schools and public institutions of higher education** is sponsored by Senator Paul W. Mark and assigned to the Joint Committee on Education. S.408 requires the MA Department of Elementary

and Secondary Education to establish best practices that **protect the health and safety of public school students and staff**. This bill is in its fifth session. **Sent to study (died).**

- **S.1175 An Act prohibiting injurious operations or offering services or products that discriminate against or injure protected classes** is sponsored by Senator Paul W. Mark and has been assigned to the Joint Committee on the Judiciary. S.1175 prohibits injurious operations or offering services or products that **discriminate against or injure protected classes**. While this bill does not specify particular protected classes, it would codify that those with electromagnetic radiation syndrom (EMR-S) and all other disabilities have a right to ask for reasonable accommodations. **Sent to study (died).**
- **H.2413 An Act recognizing EMS as a disease dangerous to the public health, requiring inclusion in MAVEN, establishing the Massachusetts EMS registry and requiring biennial reporting as part of population health trends** is sponsored by Representative Tricia Farley-Bouvier and is assigned to the Joint Committee on Public Health. H.2413 requires the Department of Public Health to **add electromagnetic sensitivity (EMS) to the list of diseases dangerous to the public health**. **This bill has been sent to study (died).**
- **Note**: There are over 60 pieces of legislation introduced this session that have "wireless" in the language. Some are protective, others are permissive to industry for fast-tracking technology that pulsates toxic radiation. See malegislature.gov/Search?SearchTerms=wireless.

**MA Bills from Prior Sessions**

- Cece Doucette introduced the first EMF commission bill in 2015-16 as S. 1222. With great thanks to the experts and citizens who sent in testimony, the bill was advanced out of the Joint Committee on Public Health and went to the Joint Committee on Health Care Finance where it died. We were congratulated on advancing the bill as that almost never happens in Massachusetts the first time a bill is introduced, especially if it comes in under a citizen's name instead of being directly sponsored by a legislator.
- Acknowledging the public record of facts we created, Senator Karen Spilka reintroduced the bill this next session under her own name as a Senate Resolve to form a commission, investigate, and address the issue. See the history of S. 1268 below.

- In the 2017-18 legislative session, Massachusetts initially introduced seven bills to address wireless radiation and public health, to protect children in schools, to protect children from hand-held devices, to label toxic products, to provide point of purchase notifications, to offer utility "smart" meter opt-out, to train the medical community and to provide health insurance for microwave illnesses.
- Concerned citizens, scientists, doctors and technologists from around the world once again submitted testimony to help educate legislators on the risks and alternate technology solutions.
- Five of the seven bills were then reported out of committee favorably and two were sent to study.
- When the Joint Committee on Consumer Protection and Professional Licensure investigated wireless radiation, they introduced an eighth bill of their own.
- The new bill was Resolve S. 2431 to form a commission to bring scientists, doctors, industry and key public servants to the table to address EMFs. A template was made available to download and send in a statement of support.

See the following for legislation introduced in **prior sessions**.

- Massachusetts EMF Bills 2023-24
- Massachusetts EMF Bills 2021-22
- Massachusetts EMF Bills 2019-20
- Massachusetts EMF Bills 2017-2018

**Bills in Other States**

New Hampshire is the only state to pass a law and conduct a true investigation of the health and environmental impacts of 5G, which led them to investigate all man-made RF-EMF effects. They issued a groundbreaking commission report with 15 recommendations to address wireless risks and safer technology solutions.

Each time legislators tried to pass subsequent bills to enact the commission's recommendations, industry persuaded the legislature not to.

Oregon released a report near the same time, but the evidence below shows their process was corrupted and the findings that should have protected children in schools was scrubbed from the report.

See legislation from across the country:

**Alaska**

- In 2020 Alaska State Senator Tom Begich introduced **SB 142 "An Act Relating To Radiofrequency Radiation Exposure In Schools"** modeled after Oregon's emergency bill, SB 283 (listed further down the page):
- http://www.akleg.gov/basis/Bill/Detail/?Root=SB%20142
- See also article by Environmental Health Trust which includes a statement from Senator Begich as well as **safe technology solutions for schools to consider implementing**:
- https://ehtrust.org/bill-on-wi-fi-in-school-health-effects-introduced-by-state-senator-of-alaska/

**Arizona**

- **State Representative Pamela Hannley** (LD-9) has a master's degree in public health and a strong health and medicine background. She worked on tobacco addiction at the University of Arizona School of Public Health. She voted against a telecom bill, and citizens have brought her current information on EMFs and 5G. She looked into this issue and posted this blog on her legislative website on 2/25/20, "Is 5G Risky Business?":

  https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpowersforthepeople.net%2F2020%2F02%2F25%2Fis-5g-risky-business-video%2F&data=02%7C01%7C%7C96bab581e96a464282c408d7c2c3f55e%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637192019191260320&sdata=Dda9F6dHJW8DTF3nO1qLatc8gDkmwXPgi5UWu7P5zEg%3D&reserved=0

- In October 2020 she hosted a 5G forum and wrote the article, "***5G Forum Reveals Risks, Concerns Regarding Widespread 4-5G Towers*** *(video)*":
- https://powersforthepeople.net/2020/10/03/5g-forum-reveals-risks-concerns-regarding-widespread-4-5g-towers-video/?fbclid=IwAR0wPBCeP6DKLCcaEVzwdKUxR-w4PuoJSkTOlOm-0N9lPSzr2R_a7ri1itI

**California**

- Assembly Member Muratsuchi introduced AB 272 in 2019 which passed to require schools to adopt policies to limit or prohibit smartphone use by students at school except in emergencies or other noted exceptions:
- https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB272

**Colorado**

- In 2025 Representatives Sheila Lieder and Junie Joseph, and Senator Robert Rodriguez introduced HB25-1175 **Smart Meter Opt-In Program** Concerning the establishment of an opt-in program for smart meters installed by a qualifying retail utility: https://leg.colorado.gov/bills/hb25-1175
- Testimony from citizens and EMF experts helped it to pass the House.

**Connecticut**

- In 2023 Rep. David Michel and Rep. Anne Hughes introduced HB05107 To give municipalities different options in conducting the siting for small cell installations and to prohibit electric utilities from installing smart meters if the customer does not opt in and consent to the installation: www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=HB05107&which_year=2023
- The town of Easton has become the first in the nation to pass a **cease and desist order on 5G small cells** until they are tested and proven biologically safe:
- https://www.wtnh.com/news/technology/easton-bans-5g-technology-rollout-citing-lack-of-research-testing/




**Hawaii**

- Rep. Tina Wildberger proposed House Resolution 63 in 2020 Requesting a Study of the Environmental and Health Effects of Fifth-Generation Technology:
    - https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HR&billnumber=63&year=2020
    - ... and House Concurrent Resolution 80:
    - https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HCR&billnumber=80&year=2020
- HB.128 would also stop 5G deployment until studies show it's safe:
- https://www.capitol.hawaii.gov/session2020/bills/HR128_.pdf
- Although not a bill, it is noteworthy that 600+ people sent in a statement of support for a **5G ban in Hawaii County** on the Big Island, and dozens of citizens testified in person even during the pandemic. Resolution 678-20 passed the planning board, and then Hawaii County Council with an 8:1 vote -- the latter indicating there should be more done to protect the public!
- https://www.hawaiitribune-herald.com/2020/07/23/hawaii-news/council-exercises-caution-in-regard-to-5g-development/
- Senators Ruderman, Chang, Ikara and Wakai introduced B433 SD2 to appropriate funds for the Department of Health to create a **social marketing campaign targeting children and their families to inform them of proven interventions to reduce child and teen screen time**:
- https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=SB&billnumber=433&year=2019
- Deborah Green, PhD, was the driving force behind the Hawaii County 5G Resolution, and also an opt-in bill for smart meters (rather than opt-out). She just shared another health report Hawaii did in 2019 that was heavily influenced by industry and is mobilizing citizens to call for it to be retracted:

- https://clicks.aweber.com/y/ct/?l=PaxHj&m=i5sNwSizlD_oKc.&b=tXc2c2XS7QXEOkVv8bHKdg

**Illinois**

- Introduced by Rep. Deanne Mazzochi, House Bill 5818 from 2019-20, aimed to restore **transparency, local control and rights back to the local communities with regard to 4G/5G** small cell installations:
- https://www.ilga.gov/legislation/fulltext.asp?DocName=&SessionId=108&GA=101&DocTypeId=HB&DocNum=5818&GAID=15&LegID=127162&SpecSess=&Session=
- See press conference and additional information on EHT's website:
- https://ehtrust.org/illinois-house-bill-protect-me-from-5g-gives-residents-more-decision-making-on-cell-antennas/
- The Illinois legislature held a hearing on technology and 5G in September 2019. Testimony was given by industry representatives and scientists, as well independent scientist Dr. Pall Heroux from McGill Univeristy, and citizens:
- https://www.youtube.com/watch?v=ylzo3OAQ5z0&list=PLMAz9ZRXjYmq72gXqnZ83grAd5eCC2Oxz
- The Chicago Tribune investigated radiation exposures from cell phones in 2019 and found many exceed FCC radiation limits. Class action lawsuits are taking place against Apple and Samsung:
- https://www.chicagotribune.com/investigations/ct-cell-phone-radiation-lawsuit-apple-samsung-met-20190829-ye5h7fw6yvauxpo367vqeg7pju-story.html
- Senator Glowiak Hilton was planning to introduce legislation in 2020 to form a task force to examine 5G health and environmental impacts:
- https://www.chicagotribune.com/suburbs/hinsdale/ct-dhd-5g-legislators-response-tl-1114-20191112-2rgstdgjlzaf5gfcg4rm55borq-story.html?fbclid=IwAR287K7JPMB7L9V8u5MfKBl6mlMEUETVWWVi_41aFHE9wqn-TWQMBqrUL3A




**Louisiana**

- In 2025, Representative Kimberly Coates introduced language to **protect consumers and the environment from pollutants, including radiofrequency radiation** as part of the geoengineering bill. See p.7 section C. for hard-wired no- fee options for consumers: https://www.legis.la.gov/legis/BillInfo.aspx?s=25RS&b=HB608&sbi=y
- In 2022 **Louisiana successfully passed** Representative Aimee Adatto Freeman's *HB548 Requires the state Department of Education to develop and distribute health and safety guidelines relative to best practices for the use of digital devices in public schools*, resulting in these guidelines: www.louisianabelieves.com/docs/default-source/healthy-communities/digital-devices-guidelines-(hb548).pdf?sfvrsn=18106318_2
- State Representative Neil Abramson in 2019 introduced House Resolution 145 "ENVIRONMENT: Requests the Department of Environmental Quality in conjunction with the Louisiana Department of Health to study the effects of evolving 5G technology". This was unanimously passed:
- https://www.legis.la.gov/legis/BillInfo.aspx?s=19RS&b=HR145&sbi=y

**Maine**

- Rep. Quint reintroduced her bill in 2025, *LD 878 (HP 564), Resolve, to Study the Effects of 5G and Other Non-ionizing Radio Frequency Radiation-emitting Technology on Bird, Bee, Insect and Other Wildlife Populations and the Effects of Long-term Exposure on Children*. Note: she added "*and Other Non-ionizing Radio Frequency Radiation-emitting*" to the title this time as industry tried to influence legislators last session to remove non-ionizing language from the bill.
- In 2023 State Representative Tracy Quint, RN introduced bi-partisan bicameral (both chambers) *H.P. 466 Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children*.
- An amendment was filed as the University of Maine does not have the expertise to complete this investigation. Instead, a commission similar to New Hampshire's is

proposed: www.mainelegislature.org/legis/bills/getPDF.asp?paper=HP0466&item=2&snum=131.

- A fiscal note was also added: www.mainelegislature.org/legis/bills/bills_131st/fiscalpdfs/FN069702.pdf.

**Maryland**

- Under Md. Code Ann., Health-General §13–1506, the Maryland State Children's Environmental Health and Protection Advisory Council (CEHPAC) in December 2022 released an informational factsheet on how to reduce children's wireless exposures entitled *"Guidelines to Reduce Electromagnetic Field Radiation".*
- For a more detailed analysis and policy recommendations please see the *2016 WiFi Radiation in Schools in Maryland Final Report*.

**Massachusetts**

- Click here for the Massachusetts EMF bills.

**Michigan**

- In 2025 Rep. DeSana reintroduced the bill below as House Bill 4097.
- Representative James DeSana in 2023 introduced HB4499 to amend current law so new 4G/5G cell towers and antennas cannot be placed on or within 1,500 feet of a school. "Construction: public buildings; placement of certain antennas on public school buildings, rooftops, and adjacent structures; prohibit. Amends 1937 PA 306 (MCL 388.851 - 388.855a) by adding sec. 1e." www.legislature.mi.gov/documents/2023-2024/billintroduced/House/htm/2023-HIB-4499.htm.
- See media coverage of citizens and legislators taking local action: duckduckgo.com/?q=michigan+cell+tower+desana&atb=v232-1&ia=web

**Minnesota**

- In 2025 Senator D. Scott Dibble introduced: *SF1544 Moratorium to complete a study on the health, environmental, and economic effects of 5G technology imposition*

- In 2024 Senator D. Scott Dibble introduced:
  SF4727, Moratorium authorization in order to study the health, environmental, and economic effects of 5G technology
  SF4728, Time-limited moratorium on approval of applications for right-of-way and small wireless facility permits local units of government imposition authorization
  SF4815, Small wireless facilities permitting requirements modifications
- Senator D. Scott Dibble's 2021 bill *SF 339 Small wireless facilities requirements modification and appropriation* includes Section 5, Study of Health Impacts of Deployment of Fifth Generation Technology: www.revisor.mn.gov/bills/text.php?number=SF339&version=latest&session=ls92&session_year=2021&session_number=0.

**Montana**

- Representative David Dunn in 2019 introduced House Joint Resolution No. 13: A joint resolution of the Senate and House of Representatives of the State of Montana urging Congress to amend the Federal Telecommunications Act to account for health effects of siting small cell network equipment in residential areas:

http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20191&P_BLTP_BILL_TYP_CD=HJ&P_BILL_NO=13&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ2=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=

**New Hampshire**

- In 2025 Rep. Diane Kelly introduced: HB501 *relative to allowing towns to **decline 5G towers***. The public hearing video is available here.
- In 2025 Rep. Kelley Potenza introduced: HB764-FN *prohibiting the intentional release of **polluting emissions**, including cloud seeding, weather modification, excessive electromagnetic radio frequency, and microwave radiation and making penalties for violation of such prohibition.*
- In 2024 Rep. Jason Gerhard introduced:

  HB1487 *relative to the health effects of **5G technology***.

HB1700-FN *prohibiting the intentional release of **polluting emission**s, including cloud seeding, weather modification, excessive electromagnetic radio frequency, and microwave radiation and making penalties for violation of such prohibition*.

- In 2023 NH Governor Sununu signed an **Executive Order** directing a statewide response to the **impact of social media platforms on New Hampshire's youth**:

See press release: www.governor.nh.gov/news-and-media/governor-chris-sununu-signs-executive-order-2023-04

See Executive Order: www.governor.nh.gov/sites/g/files/ehbemt336/files/documents/2023-04.pdf

- In 2023 Rep. Abrami lost his seat, and Rep. Lucius Parshall and Senator Denise Ricciardi introduced ***HB.298 An Act relative to placement of personal wireless service facilities****:* gencourt.state.nh.us/bill_status/legacy/bs2016/bill_status.aspx?lsr=500&sy=2023&sortoption=&txtsessionyear=2023&txtbillnumber=HB298
  See information sheet here. Industry derailed this bill.

- In 2022 Representative Patrick Abrami introduced **HB1644 to begin implementing the 5G Commission Report recommendations (see below) with a 1,640-foot/500 meter setback for new cell towers and antennas, and a statewide registry for citizens to report wireless radiation harm**:
  https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/bill_docket.aspx?lsr=2632&sy=2022&sortoption=&txtsessionyear=2022&txtbillnumber=hb1644
  Industry derailed this bill.

- See Dr. Kent Chamberlin's 20-minute presentation of the scientific reasoning behind the setback:
  www.youtube.com/watch?v=DWK74ie7krc&list=PLMAz9ZRXjYmpsjY7soBpLn56MZHTvk1OP

- See the **HB1644 public hearings** and sub-committee meetings:
  www.youtube.com/playlist?list=PLMAz9ZRXjYmpsjY7soBpLn56MZHTvk1OP

- In October 2022 the **House Science, Technology and Energy Committee voted 15:3** to recommend future legislation to inform the public on the pros and cons of wireless

technology, and to provide municipalities with guidelines for zoning protections on the placement of wireless infrastructure

- In 2019 Representative Patrick Abrami, an engineer, introduced bi-partisan **HB 522 to address the health and environmental effects of 5G technology; it was passed by the House, Senate and signed into law by Governor Sununu in just seven months**:

  https://alpaca-chinchilla-x6xf.squarespace.com/s/NH-Abrami-5G-Health-Environment-Bill-Jan-2019.pdf

Below is the **audio recording from the Senate hearing** on April 16, 2019:

http://www.gencourt.state.nh.us/senateaudio/committees/2019/HHS/HB0522_04162019.aspx

- See **Rep. Abrami's article** in the local paper when he introduced the bill:

https://www.seacoastonline.com/news/20190404/legislative-update-on-abramis-three-house-bills

- The following page tracked the **Commission's investigation** of wireless radiation impacts:

http://www.gencourt.state.nh.us/statstudcomm/committees/1474/default.html

- New Hampshire formulated 15 recommendations to inform and protect the public in the groundbreaking ***Final Report of the Commission to Study the Environmental and Health Effects of Evolving 5G Technology*** *(HB 522, Chapter 260, Laws of 2019, RSA 12-K:12–14). Please note, the Majority report is contained in the first 17 pages, the bulk of the document contains supporting appendices and meeting minutes. A Minority report is included in pages 18-37. Commission members Ricciardi and Heroux counter several oft-repeated points of misinformation in the Minority report on pages 384-5 of the electronic copy, or pages 5 and 6 of 11 in the final meeting minutes of Appendix O:*

http://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf

- As noted in the report's reference to the Harvard publication, Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates, the wireless industry appears to be using the tobacco playbook to create doubt among the public. It came as no surprise then that industry representative David Juvet who served on the Commission but rarely attended meetings, published a **disinformation opinion piece** with no factual backing in New Hampshire media outlets the week before the report was issued:

https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article_651299ac-1a4c-5041-8422-1749c047723d.html

https://www.businessnhmagazine.com/article/opinion-flying-below-the-radar

- Likewise, the **City Council of Keene, New Hampshire had voted 10:2 to put a temporary moratorium** on all 4G/5G small cell applications until the legislative report was published. Another industry Commission member, Bethanne Cooley of CTIA -- The Wireless Industry, then threatened legal action and the Mayor of Keene directed the City Council take a re-vote and the ban was lifted, 8:7. Keene is, however, writing a wireless small cell ordinance to protect its citizens:

https://www.sentinelsource.com/news/local/keene-council-panel-oks-5g-ordinance-despite-advice-it-may-violate-law/article_8d1aa0a3-3175-50d6-8394-05891d048256.html

https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article_651299ac-1a4c-5041-8422-1749c047723d.html

https://www.businessnhmagazine.com/article/opinion-flying-below-the-radar

- In this interview with NH Governor Sununu he indicates, "... **the role of government … comes down to health and safety**" so we are hopeful he will protect NH citizens and environment over corporate profits: https://www.washingtonexaminer.com/politics/live-free

- In December 2020 the European Parliament began an investigation into wireless radiation, especially 5G. The panel is a two-hour session with six representatives from

industry and science. In the final minute the moderator recommends emulating the NH commission's process and report.

**New York**

- In 2025 Assembly Member Seawright introduced a bill modeled after New Hampshire's successful commission bill above. **Assembly Bill A1113 Establishes a temporary commission** to study the environmental and health effects of evolving 5G technology: https://www.nysenate.gov/legislation/bills/2025/A1113
- In 2025 Senator Peter Harckham [D] introduced **Senate Bill 6795 Establishes certain consumer rights** for the protection of consumer health, safety and/or privacy needs related to utility meters: www.nysenate.gov/legislation/bills/2025/S6795
- In 2025 Assembly Member Otis [D] also introduced **Assembly Bill A7714 Provides for consumer protection and utility meter choice**: www.nysenate.gov/legislation/bills/2025/A7714
- In 2025 Assembly Member Solages introduced **Assembly Bill A5153 Relates to advanced metering infrastructure devices for residential services** with an opt-out: https://www.nysenate.gov/legislation/bills/2025/A5153
- In 2025 Assembly Member Santabarbara introduced **Assembly Bill A3978 Allows customers to decline the installation of smart meters**: www.nysenate.gov/legislation/bills/2025/A3978
- In 2023 Assemblyman Simon introduced a bill modeled after New Hampshire's successful commission bill above. **Assembly Bill A7229 Establishes a temporary commission** to study the environmental and health effects of evolving 5G technology: www.nysenate.gov/legislation/bills/2023/A7229
- In 2023 Senator Peter Harckham [D] introduced **Senate Bill 5632 Establishes certain consumer rights** for the protection of consumer health, safety and/or privacy needs related to utility meters: www.nysenate.gov/legislation/bills/2023/S5632
- In 2023 Senator Leroy Comrie introduced **Senate Bill 5586 Restricts the use of advanced metering infrastructure** devices by electric, gas and water-works corporations; requires

utilities to provide notice to customers before installation of a two-way smart meter; makes related provisions: assembly.state.ny.us/leg/?default_fld=&bn=S05586&term=2023&Summary=Y&Actions=Y&Text=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y#S05586

- In 2023 Sen. Kevin Parker [D], Sen. Peter Harckham [D], Sen. Zellnor Myrie [D] introduced **Senate Bill 2587 Directs utilities to study the potential health risks and effects of smart meters** including, but not limited to, the risks and effects of the installation of such smart meters, and recommended safe practices associated with the use of smart meters; requires utilities to report their findings to the public service commission; requires the public service commission to prepare a comprehensive report to the governor and legislature: assembly.state.ny.us/leg/?default_fld=&bn=S02587&term=2023&Summary=Y&Actions=Y&Text=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y#S02587
- In 2022 Senator Pete Harckham introduced **Senate Bill S8765, Relates to consumer protection and utility meter choice**, to give ratepayers the right to choose a no-fee analog meter instead of a radiation emitting "smart" meter: www.nysenate.gov/legislation/bills/2021/S8765
- In 2021 New York State (NYS) Assemblyman Tom Abinanti (District 92), Assemblywoman Jo Anne Simon (District 52), Assemblyman Steve Englebright (District 4), and Senator Anna Kaplan (District 7) introduced identical Senate and Assembly bills calling for a **formal investigation into the health and environmental risks of 5G technologies**:
- S5926: https://www.nysenate.gov/legislation/bills/2021/s5926
- A06448: https://assembly.state.ny.us/leg/?default_fld=&bn=A06448&term=2021&Summary=Y&Actions=Y&Text=Y&Committee&nbspVotes=Y&Floor&nbspVotes=Y#A06448
    - In October 2019 Assemblyman Thomas Abinanti introduced a bill that would require the State to investigate the safety of 5G. It includes language similar to the New Hampshire bill that has been passed into law:
    - https://assembly.state.ny.us/leg/?default_fld=&bn=A08637&term=2019&Summary=Y&Actions=Y&Text=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y&f

bclid=IwAR1Q1P0nRX-IM2Fm8dqG1QHWRqTIR4ET195XYj-o9CoDfrFFWY7C-8_QtBw

- In March 2020 Senator Anna Kaplan introduced a bill directing the Department of Health and the Department of Environmental Conservation, in cooperation with the Office of Technology Services, to "...jointly study and evaluate the health and environmental impacts of the implementation of fifth generation (5G) and future generation wireless systems technology and small cell distribution antenna systems in the state."
- https://www.nysenate.gov/legislation/bills/2019/s7922

**Oregon**

- Senate Bill 283 was an *emergency law* introduced in 2019 by retired public health nurse Senator Laurie Monnes Anderson directing the Oregon Health Authority (OHA) to review the independent microwave radiation science and make recommendations. The Department of Education would then make recommendations to reduce students' exposures in schools. Corruption documented below derailed this bill and leaves Oregon students exposed to toxic levels of radiofrequency microwave radiation:

gov.oregonlive.com/bill/2019/SB283/

https://news.streetroots.org/2019/02/08/do-we-need-warnings-wi-fi

The Testimonies: https://www.youtube.com/watch?v=7g5mZFDIic0

Prof. Paul Heroux: https://www.youtube.com/watch?v=7YdFz5vM0aY

Child's Testimony: https://www.youtube.com/watch?v=oQugpEcxLDY

Parents Across America Testimony: https://www.youtube.com/watch?v=ZjGSc1xXET4

Parents Across America Write-up on the Oregon Bills, including additional testimonies:

https://www.paaoregon.org/single-post/2019/08/07/Oregon-Legislature-Passes-SB-283-to-Study-Effects-of-WiFi-Radiation-on-Children-with-video?fbclid=IwAR3DPo2nsp3zmblL114Gv5qgG8KpN3XqFaaP8Nx2i-M--4ywyivyozYwbyA

Massachusetts for safe TECHNOLOGY

Unfortunately, the **report prepared by the Oregon Health Authority** did not do what the law mandated and ignored all but epidemiological scientific studies, some of which were industry funded:

https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB_283_%20Wireless_Tech%20_Health_Risks_Report.pdf

Cece Doucette provided a **review of the report including seven areas where OHA missed the mark**, plus information showing harmful levels of EMF exposure in school:

https://alpaca-chinchilla-x6xf.squarespace.com/s/Doucette-Gmail-Response-Availability-of-Oregon-Health-Authority-Senate-Bill-283-Report-Wireless-Netw.pdf

OHA subsequently posted "**SB 283 Legislative Report Answers to Frequently Asked Questions**" in which they acknowledge they "did not include studies on animals due to limited resources and a lack of funding for the bill"; they omitted thousands of biological studies and their report recommendations do not protect the public; they offer recommendations to lower risk exposures:

https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB_283_FAQ.pdf

**Washington Spectator investigative reporter Daniel Forbes** exposed corruption in OHA's report preparation:

https://washingtonspectator.org/oregon-health-authority-forbes/?fbclid=IwAR0JCCNf1q88pyETbB3btY8vmEGb1muqkK95I-40_jPn6YYm_kqOtKxv1Jg

The OHA **Policy Board heard 2-minute public comments** on July 7, 2021 identifying the corruption in the final report:

https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments_updated.pdf

**Written public comments** were also submitted by the Environmental Health Trust, Environmental Working Group, Physicans for Safe Technology and others document the science indicating biological harm:

https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments_updated.pdf

- In 2026, Peter Cowan began investigating and some of the above documents disappeared from OHA's website. See his article, **Oregon Health Authority buried documents from a manipulated study on WiFi in schools. State law let it happen.**

  https://peteranthonycowan.substack.com/p/oregon-health-authority-buried-documents?publication_id=7139088&post_id=203190378&triedRedirect=true

- Also in 2019, Senate Bill 281 requires manufacturer of digital product to label product with information relating to health risks associated with use of product:

https://gov.oregonlive.com/bill/2019/SB281/

- Senate Bill 282 from 2019 requires Department of Education, in cooperation with Oregon Health Authority, to conduct study to determine and recommend appropriate health standards to govern student use of computers, mobile digital devices and other electronic media in classrooms:

https://gov.oregonlive.com/bill/2019/SB282/

**Pennsylvania**

- In 2023, Representatives Brett Miller et al. introduced PA House Bill 1202 to specify an **electromechanical/analog meter opt-out** in PA public utilities statutes. For over a decade, the PA PUC and PA utilities have been enforcing a smart meter mandate, despite the current PA statute stipulating that "electric distribution companies shall furnish smart meter technology as follows: (i) Upon request from a customer that agrees to pay the cost of the smart meter at the time of the request." See House Bill 1202 *An Act amending Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes, in restructuring of electric utility industry, further providing for definitions and for duties of electric distribution companies and providing for duties of public utilities*:
  - https://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2023&body=H&type=B&bn=1202

**Rhode Island**

- House Bill 5992 Relating to Health and Safety - The **Geoengineering Act** 2019 was the first in the nation to compile all the hazardous emissions into one bill for comprehensive monitoring and prohibition. Page 4, line 27 addresses emissions from all generations of cell phone towers. See also electromagnetic references on page 1, line 11; page 6, line 13; page 7, line 24; page 8, line 1; page 10, line 16; page 13, line 28; page 14, lines 11 and 27:
  http://webserver.rilin.state.ri.us/BillText/BillText19/HouseText19/H5992.pdf
    - Rhode Island introduced an updated 2021 Rhode Island Geoengineering and Hazardous Emissions Act
    - http://webserver.rilin.state.ri.us/BillText/BillText21/SenateText21/S0572.pdf
    - Rhode Islander Rachael McIntosh has studied geoengineering extensively. She provides a 12-minute history and details the biological and environmental harm for the Study Commission below:
    - http://ritv.devosvideo.com/show?video=cd83496e9f26&apg=ed687894
- In 2022 McIntosh started the non-profit **The Foundation for Bioethics in Technology**: https://bioethics.tech/.
- In 2023 the bill was reworked and renamed **House Bill 5866 AN ACT RELATING TO HEALTH AND SAFETY -- THE ATMOSPHERE PROTECTION ACT** which prohibits the intentional release of hazardous polluting emissions, including radiofrequency radiation, and provides for a natural climate while increasing resiliency by prohibiting deliberate atmospheric pollution and manipulation of the environment:
  legiscan.com/RI/text/H5866/id/2722674/Rhode_Island-2023-H5866-Introduced.pdf

**Tennessee**

- In 2024 identical **smart meter opt-in bills** were introduced in both chambers, SB.2232 by Senator Joey Hensley, MD and HB.2370 by Rep. Jody Barrett, AN ACT to amend Tennessee Code Annotated, Title 5; Title 6; Title 7; Title 8; Title 65 and Title 68, relative to utility metering:
  https://wapp.capitol.tn.gov/apps/BillInfo/default.aspx?BillNumber=HB2370&GA=113

**Vermont**

- In 2012 Vermont became the **first in the nation to pass a no-fee opt-out** bill. See p. 61: legislature.vermont.gov/bill/status/2012/S.214
  See their government website today for the opt-out: publicservice.vermont.gov/regulated-utilities/electric/smart-grid
- In 2026 Senators Hardy and Watson introduced S.213 An act relating to the use of advanced metering infrastructure devices, which includes a fee-based opt-out for Automated Metering Infrastructure (AMI) utility water meters; it did not pass: legislature.vermont.gov/bill/status/2026/S.213.
- In 2023 Rep. Katherine "Kari" Dolan and Rep. Avram Patt introduced H.70 An act relating to the **siting of telecommunications facilities**: legislature.vermont.gov/bill/status/2024/H.70
- H.513 An act relating to **broadband deployment** throughout Vermont, 2020, aimed to ensure internet access to all residents: https://legislature.vermont.gov/bill/status/2020/H.513
- Annette Smith presented an overview of the issues with 5G to the Senate Finance Committee on April 12, 2019. The Committee is investigating and has requested the testimony from NH 522:

  *https://www.youtube.com/watch?time_continue=10&v=8YzgrCXaN-4*
- Additional Citizens educated their legislators on April 18, 2019 at the Vermont State House:
- https://mailchi.mp/612017206454/april-18-vermont-statehouse-meeting-huge-success?e=6b187a71ec
- The following story ran on May 24, 2019:
- http://truenorthreports.com/emf-expert-says-broadband-bill-on-governors-desk-piggybacks-controversial-5g-wireless-technology
- **Vermont Department of Health** was tasked with investigating the health risks and submitted the following report in January 2020; it would seem they looked to captured

federal agencies rather than investigating the non-industry funded peer-reviewed science as New Hampshire has done:

- https://legislature.vermont.gov/assets/Legislative-Reports/RFR-Report-12.23.19.pdf?fbclid=IwAR3w1OBPkrkY_FSLx85gA9rtzMrHr9WAMqtbmldeyW7kRZveSYBeIe7p6-E
- House Committee on Energy and Technology Chair Rep. Timothy Briglin was not satisfied with the health report given citizens had presented compelling evidence of harm. He asked **Dartmouth College's Rockefeller Center for Public Policy** to do an independent investigation. The following was completed by three undergraduate students but it does not appear they did an analysis of the independent peer-reviewed science:
    - https://rockefeller.dartmouth.edu/sites/rockefeller.drupalmulti-prod.dartmouth.edu/files/prs_5g_final.pdf
- Senator John Rogers introduced S.212 to place cell phones on par with tobacco and alcohol, asking that it be **declared a crime for those under age 21 to possess a cell phone** given the social, emotional and distracted driving impact on Vermont's children:
- https://legislature.vermont.gov/bill/status/2020/S.212
- As the following article notes, **Governor Phil Scott vetoed the bill**, which Rogers indicates he wouldn't have voted for himself but he filed it to make an important point about the impact cell phones are having on our children:
- https://sharylattkisson.com/2020/01/vermont-lawmaker-proposed-banning-cell-phones-for-people-under-21/
- Elsewhere in Vermont, citizens are organizing and informing their community and their legislators. See this letter to the editor from Iishana Artra, PhD, CPC, *5G -- Not in My Front Yard*:
- https://www.reformer.com/stories/iishana-artra-5g-not-in-my-front-yard,570109
- Emily Peyton writes *5G is a Horrible Plan* in the Brattleboro Reformer:
- https://www.reformer.com/stories/letter-5g-is-a-horrible-plan,570113?

- Vermonters have also held public screenings of the award-winning film *Generation Zapped*, and *5G Apocalypse, the Extinction Event*.
- See the article on page 7 of the following 2019 year-end newsletter from Vermonters for a Clean Environment (VCE) for an update on EMF legislative efforts:
- https://issuu.com/vermoner/docs/vce_end-year_2019_newsletter

**Virginia**

- 2024, Senator Bill Stanley introduced SB28 **School boards**; powers and duties, policies regarding cell phones and other handheld devices: lis.virginia.gov/cgi-bin/legp604.exe?241+sum+SB28
- 2023, Senator Amanda Chase introduced SB 849 Public utilities; customer consent to install **smart meter**: lis.virginia.gov/cgi-bin/legp604.exe?231+sum+SB849
- See also testimonies and smart meter fact sheets at **Virginians for Safe Technology**: virginiansforsafetech.org/say-no/

**Washington**

- HB 1336 - 2025-26 Protecting utility consumer meter choice. Sponsors: Walsh, Marshall

# Expert Video Clips

There are many experts at the ready to help implement safe technology solutions. Here is a sampling of what HHS might facilitate:

**Retired Microsoft Canada President Frank Clegg** is featured in this 8-minute public service announcement to suspend 5G rollout and to instead choose safe and reliable fibre connections to and through the premises:

- https://www.youtube.com/watch?v=xW7BbztmuYg&feature=emb_logo

**Burt Wolf and Camilla Rees** produced a two-part series on PBS, each 24-minutes long:

- Travels & Traditions: A Short Guide to Cell Phone Safety (1808)
- Travels & Traditions: Travel & The Danger of RF Radiation (1809)

**Dr. Cindy Russell**, Executive Director of Physicians for Safe Technology, has produced short videos for citizens to share with their local towns, schools, legislators and loved ones to explain wireless risks:

- www.youtube.com/@MDSafeTech

**Michigan Senator Patrick Colbeck** convened leading world experts in December 2018 for a *Wireless Radiation: Benefits and Risks* forum (individual presentations are @ 10 minutes, panels are @ 20 minutes):

*A. INTRODUCTION – Senator Colbeck*

*B. WIRELESS TECHNOLOGY OVERVIEW*

*1. Cell Phones–Cece Doucette, MTPW, Technology Safety Educator and Co-Founder of Safer Screentime non-profit*

*2. Electromagnetic Spectrum Science -Dr. Devra Davis, President, Environmental Health Trust*

*3. Smart Meters & WiFi- Bill Bathgate, Electrical Engineer*

*4. 5G "small cells" – Kevin Schoen, CEO, ACD.net fiber-optics and telecommunications company*

*C. BENEFITS*

*1. Internet of Things– Frank Clegg, Retired President of Microsoft Canada and Co-Founder of Canadians for Safe Technology*

*D. RISKS*

*1. Adverse Health Impacts*

*i. NTP Study Findings and Cancer– Dr. Ron Melnick, Retired NIEHS Senior Toxicologist who designed the $30M NTP study that found low-level, non-thermal radiofrequency radiation causes cancer and DNA damage*

*ii. Cancer Evidence in Humans - Dr. Anthony Miller, MD, Former Advisor to the World Health Organization: concludes we now have enough evidence to declare radiofreqency radiation as a Group 1: Human carcinogen and governments must act to protect the public*

*iii. DNA, Fertility and Children– Dr. Devra Davis, President, Environmental Health Trust*

*iv. Mechanisms and Biological Cell Functions – Dr. Paul Heroux, Scientist, Faculty of Medicine, McGill University*

*v. Science of Microwave Sickness – Dafna Tachover, Attorney, Founder of We Are The Evidence*

*vi. Clinical Observations of Microwave Sickness - Dr. James Ziobron, Practicing Family Medicine Physician*

*2. Personal Data Privacy & National Security –Senator Colbeck*

*E. WIRELESS RADIATION POLICY & ADVOCACY STATUS*

*1. Federal Policy Environment - Dafna Tachover, Attorney, Founder of We Are The Evidence*

*2. Challenging Industry to Promote Safe Technology – Frank Clegg, Retired President of Microsoft Canada and Co-Founder of Canadians for Safe Technology*

*3. State and Local Policies - Theodora Scarato, MSW, Environmental Health Trust Executive Director*

*F. POLICY CONSIDERATIONS PANEL DISCUSSIONS - Dr. Devra Davis - Moderator*

*1. Human Exposure Standards (Dr Anthony Miller, Dr Paul Heroux, Dr. Ron Melnick, Dafna Tachover, Frank Clegg)*

*2. WiFi in Schools (Joel Dorfman, Dafna Tachover, Cece Doucette, Theodora Scarato, Ilona Rugg)*

*3. 5G Deployment & Local Control (Lemon Hermann, Cece Doucette, Theodora Scarato, Kevin Schoen, Mike Watza)*

*G. PRACTICAL SAFEGUARDS TO PROTECT FROM WIRELESS RADIATION –Theodora Scarato, Environmental Health Trust Executive Director*

*Click here for panelists' biographies.*

*Click here for Senator Patrick's "Policy Guidance Regarding Wireless Radiation"*

The following presentations were given at the **2018 Health in Buildings Roundtable Conference held at the U.S. National Institutes of Health** (NIH):

- **Cece Doucette** introduces the wireless radiation issue and panelists:

*https://www.youtube.com/watch?v=ScUTQdluhTw&t=2s&list=PLMAz9ZRXjYmp8vCf4HKxmLhdqEgbqYS65&index=2*

- **Dr. Martin Pall** presents scientific reviews of the EMF/EMR biological harm and the urgency to stop 5G:

*https://www.youtube.com/watch?v=kBsUWbUB6PE&t=0s&list=PLMAz9ZRXjYmp8vCf4HKxmLhdqEgbqYS65&index=3*

- **Retired Microsoft Canada President Frank Clegg** indicates the industry must do better:

*https://www.youtube.com/watch?v=2V6SLJvjmqE&t=340s&list=PLMAz9ZRXjYmp8vCf4HKxmLhdqEgbqYS65&index=4*

- **Environmental Health Trust Executive Director Theodora Scarato** discusses the need to protect especially children:

*https://www.youtube.com/watch?v=onEEkoQ2JB0&t=24s&list=PLMAz9ZRXjYmp8vCf4HKxmLhdqEgbqYS65&index=6*

- **Clear Light Ventures CEO Peter Sullivan** presents healthy building requirements for technology:

*https://www.youtube.com/watch?v=P44T7qbKXss&t=9s&list=PLMAz9ZRXjYmp8vCf4HKxmLhdqEqbqYS65&index=5*

- On February 27, 2019, **Joel Moskowitz, Ph.D.**, delivered the keynote presentation, "Cell Phones, Cell Towers & Wireless Safety" at the University of California, Berkeley. The presentation provides a nontechnical overview of wireless radiation research and policy developments including 5G: https://www.youtube.com/watch?v=AgGRukb7qI4
- **Dr. Erica Mallery-Blythe** provides a one-hour lecture that will help those new to this topic quickly come up to speed: https://www.youtube.com/watch?v=sNFdZVeXw7M
- **Dr. Devra Davis** explains the legal ramifications in a lecture to Australia's New South Wales University Law School in November 2015. She is joined by renowned neurosurgeon **Dr. Charlie Teo** for the Question and Answer segment where he calls for National Cell Phone Right To Know Legislation: https://www.youtube.com/watch?v=IzfoGy917yA
- On October 10, 2015, the **Santa Clara County Medical Association Alliance Foundation** sponsored a forum, "Wireless Technology and Public Health: Health and Environmental Hazards in a Wireless World," and the clips are provided here: http://www.saferemr.com/2015/10/wireless-technology-public-health-forum.html
- The following segment is from the June 10, 2015 forums held with the **legislature in Massachusetts:**
  Nobel Peace Prize Co-Laureate Scientist Dr. Devra Davis and former long-time Microsoft Canada President Frank Clegg presenting the need for a right-to-know initiative to the MA legislature
- The following segments are from an evening **public forum held in Framingham, Massachusetts** on June 10, 2015:
- Dr. Devra Davis, Ph.D in Framingham, MA talks about wireless radiation

- Frank Clegg speaking more casually to the Framingham forum audience with details on what industry and other countries are doing, including France's recent ban on wi-fi in preschools
- Child Psychologist, School Consultant, Researcher and Author Dr. Catherine Steiner-Adair speaking of the developmental, social and emotional impact technology is having on our children
- Dr. R.S. Sharma from India on health and environmental impacts of mobile phones and other wireless devices
- Janet Newton, President of EMR Policy Institute speaks on wi-fi dangers
- Framingham Board of Health Director Mike Hugo on a desire to implement right-to-know labeling in retail stores, and wired technology in schools
- Dr. Devra Davis Q&A with OBGYN on dangers of Wifi on children and pregnant women
- Dr. Devra Davis, Ph.D Q&A with school board member on dangers of Wifi & children
- **Camilla Rees** and ElectromagneticHealth.org hosted an expert panel on cell phone and wireless risks, June 22, 2015 at the Commonwealth Club, the United State's oldest and largest public affairs forum:
    - **Karl Maret, MD** discusses data gathered in a Massachusetts school where children are presenting with electrohypersensitivity (EHS): https://vimeo.com/132039697
    - A full roster of experts who presented at the **Commonwealth Club** is available here, along with previous program videos from **ElectromagneticHealth.org**: https://vimeo.com/electromagnetic/videos
- **Dr. Nicholas Gonzalez**, renowned New York City physician, talks about health risks from electromagnetic fields. He indicates it will be up to individuals and parents to become educated and protect themselves and their loved ones; our government and schools are slow to respond unless citizens initiate change: https://vimeo.com/142196113

- In this 16-minute lecture, **Dr. Martin Pall** explains biologically what electromagnetic radiation is doing to our bodies and why it is causing illness: https://www.youtube.com/watch?v=3kQQyU8NHv8
- **Dr. Magda Havas** demonstrates how WiFi connects your laptop, iPhone and iPad to the internet via microwave radiation. You will also learn how WiFi base stations, portable phones and baby monitors constantly radiate microwave radiation: https://www.youtube.com/watch?v=bsQKuu6qT4k
- This 15-minute video explains what **earthing or grounding** is, and how it can help to reverse inflammation that leads to disease: https://vimeo.com/205264910

# Books

The following books bring depth to understanding the physical health and psychological impact of our adoption of wi-fi and cellular devices, along with solutions. They are listed in no particular order and many libraries carry them. Perhaps an action item for HHS to implement is to issue a list of recommended reading for libraries to add to their print and digital collections:

- The **first medical textbook** is now available, Panagopoulos DJ (Ed.). (Dec 30, 2022). *Electromagnetic Fields of Wireless Communications: Biological and Health Effects* (1st ed.). CRC Press. doi: 10.1201/9781003201052: https://www.routledge.com/Electromagnetic-Fields-of-Wireless-Communications-Biological-and-Health/Panagopoulos/p/book/9781032061757
- The ***Alliance of Nurses for Healthy Environments Textbook of Environmental Health in Nursing 2nd Edition*** includes a *A New Form of Environmental Pollution: Wireless and Non-Ionizing Electromagnetic Fields*, p. 136-160. Free download: envirn.org/e-textbook/?eType=EmailBlastContent&eId=183702a2-ce4a-4df7-b20d-6c0edefe4aa7
- Overpowered: The Dangers of Electromagnetic Radiation (EMF) and What You Can Do about It, by Martin Blank, Ph.D. and the sequel by his son R Blank, Empowered: A Consumer Guide to Legitimate EMF Protection to Shield Your Body
- UnPlug: A Radiologist Explores the Damage Caused by Electropollution and How You Can Prevent It, by Dr. Rob Brown
- Disconnect: The Truth About Cell Phone Radiation, by Devra Davis, Ph.D.
- The Big Disconnect: Protecting Childhood and Family Relationships in the Digital Age, by Catherine Steiner-Adair, Ed. D. and Teresa H. Barker
- Reset Your Child's Brain: A Four-Week Plan to End Meltdowns, Raise Grades, and Boost Social Skills by Reversing the Effects of Electronic Screen-Time, by Victoria L. Dunckley, M.D. (ESS)
- Glow Kids: How Screen Addiction is Hijacking Our Kids - and How to Break the Trance, by Dr. Nicholas Kardaras

- Digital Madness: How Social Media Is Driving Our Mental Health Crisis--and How to Restore Our Sanity by Dr. Nicholas Kardaras
- The Red Shoes; Our Devil's Dance with Technology and How We Can Stop it, by Shannon Rowan
- A children's book, Wireless Wise Kids: Safer ways to use mobile and wireless technology, by Lyn McLean
- A children's book about a Mom who becomes environmentally ill from EMFs, mold and chemicals, The Wishing Tree, A Building Biology Inspired Fairy Tale, by Chris McPhie and Scott Ricker
- A family planning book, Wireless Wise Families: what every parent needs to know about wireless technologies by Lyn McLean
- A Wellness Guide for the Digital Age by Dr. Kerry Crofton
- Less Screen More Green: The Mindful Tech Plan offers the powers of nature, mindfulness and being truly connected to balance out your screentime with greentime, by Dr. Kerry Crofton
- Zapped: Why Your Cell Phone Shouldn't Be Your Alarm Clock and 1,268 Ways to Outsmart the Hazards of Electronic Pollution, by Ann Louise Gittleman
- Dirty Electricity: Electrification and the Diseases of Civilization, by Samuel Milham, M.D.
- The Invisible Rainbow: A History of Electricity and Life by Arthur Firstenberg
- The Non-Tinfoil Guide to EMFs, by Nicholas Pineault
- The 2018 policy paper, "Re-Inventing Wires: The Future of Landlines and Networks," indicates the U.S. should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment.
- EMF Health Alert: The #1 Guide for Reducing Electromagnetic Pollution for Better Sleep, Better Focus, & Better Health, by Holly Manion and Alfred Pacheco

- Electromagnetic Radiation Survival Guide: Step by Step Solutions -Protect Yourself & Family NOW! by Jonathan Halpern, Ph.D.
- Unplug: How to Survive and Thrive in a Wi-Fi World Gone Wild, by Sam Wieder
- Earthing: The Most Important Health Discovery Ever! by Clinton Ober, Stephen Sinatra, M.D., and Martin Zucker
- The Earth Prescription: Discover the Healing Power of Nature with Grounding Practices for Every Season, by Dr. Laura Koniver
- Curing Electromagnetic Hypersensitivity, by Steven Magee
- Electromagnetic Fields: A Consumer's Guide to the Issues and How to Protect Ourselves, by B. Blake Levitt
- An Electronic Silent Spring: Facing the Dangers and Creating Safe Limits, by Katie Singer
- Healing Severe Chemical and EMF Sensitivity: Our Breakthrough Cure for Multiple Chemical Sensitivities (MCS) and Electro-hypersensitivity (EHS), by Gary Patera
- Energy Medicine Technologies: Ozone Healing, Microcrystals, Frequency Therapy, and the Future of Health, by Finley Eversole Ph.D. (Editor), Karl Maret M.D. (Foreword)
- Electromagnetic Health: Making Sense of the Research and Practical Solutions for Electromagnetic Fields (EMF) and Radio Frequencies (RF), by Case Adams Naturopath
- Cell Phones: Invisible Hazards in the Wireless Age: An Insider's Alarming Discoveries about Cancer and Genetic Damage, by Dr. George Carlo and Martin Schram
- Public Health SOS: The Shadow Side Of The Wireless Revolution, by Camilla Rees and Magda Havas
- For patients and doctors, Electromagnetic Sensitivity and Electromagnetic Hypersensitivity: A Summary, by Michael Bevington
- Cellular Telephone Russian Roulette: A Historical and Scientific Perspective by Robert Kane, a former Motorola engineer discusses the very real danger that wireless technology poses.

- The Body Electric: Electromagnetism and the Foundation of Life by Robert O. Becker, MD, and Gary Selden
- All EMF*d Up (*Electromagnetic Fields): My Journey Through Wireless Radiation Poisoning plus How You Can Protect Yourself, by Anne Mils

# Documentaries

Note: some of the following are available on YouTube, others may be purchased or licensed, and others may be available through your local library via DVD or subscriptions to services like Kanopy or Hoopla. The Ashland Public Library, Massachusetts was the first in the nation to host a six-part documentary film and discussion series on Electromagnetic Radiation and Health; HHS may wish to encourage all communities to offer a similar program.

**5G: The Untold Story (29 minutes):** This eye-opening documentary featuring oncologist and EMF researcher Dr. Lennart Hardell and journalist Mona Nilsson follows the first scientific case studies in the world on people exposed to 5G radiation in their own homes:

- www.youtube.com/watch?v=7-4NaHu9Eo4

**Generation Zapped (74 minutes)** is produced by award-winning film maker Sabine El Gemayel to investigate and educate the public on the biological hazards of wireless technology. It won *Best Documentary* at the D.C. Independent Film Festival in 2018 and was selected for the United Nations Association Film Festival. Many are hosting community and/or private screenings:

- Trailer: https://www.youtube.com/watch?v=h7R4gKs8VIl
- Watch via library streaming services Kanopy: https://www.kanopy.com/product/generation-zapped and Hoopla: https://www.hoopladigital.com/title/12348298
- See also Amazon options: www.amazon.com/s?k=generation+zapped
- Apple TV/iTunes: https://tv.apple.com/us/movie/generation-zapped/umc.cmc.qsbx719g848zhwq6u4aa8r1

In **The Digital Dilemma** by Klaus Scheidsteger, world-leading scientists present demonstrable evidence of the harmful effects of radiation exposure on health, whether this happens directly to the ear or indirectly via mobile phone towers:

- www.youtube.com/watch?v=CGCnGJiMK0A

**Burt Wolf and Camilla Rees** produced a two-part series on PBS, each 24-minutes long:

- Travels & Traditions: A Short Guide to Cell Phone Safety (1808)
- Travels & Traditions: Travel & The Danger of RF Radiation (1809)

**Remembering Nearfield (9 minutes)** is an animated short film produced by Sean A. Carney about a woman who is like everybody else: she thought it was "crazy" to be ill from wireless and that it could never happen to her:

- vimeo.com/810958040

**Freequencies (13 minutes):** Ten year old Oliver experiences life differently due to electromagnetic hypersensitivity (EHS). This rare condition makes everyday technology a challenge: he feels the buzz of electronic devices more intensely than others. Oliver's journey sheds light on the often-overlooked effects of our technological footprint and inspires a quest for more genuine human connections:

- www.youtube.com/watch?v=V1N4Edy7gEw&t=5s

**Screenagers (70 minutes)** is produced by Delaney Ruston, M.D. and mother of two teenagers. It is being licensed world-wide by schools, parents and communities to raise awareness and open conversations on the issues surrounding excessive screen time and our children:

- https://www.screenagersmovie.com/

**Full Signal - The Hidden Cost of Cell Phones (62 minutes):** Interviews with scientists, journalists, activists, lawyers and lawmakers on the effects of the proliferation of cellular technology in our society, 2011:

- https://www.amazon.com/Full-Signal-Hidden-Cost-Phones/dp/B00427VBVO

**The Life of a Tower Climber: Death and chaos in a vital industry | Official Documentary (2024, 27 min.)**

- www.youtube.com/watch?v=_kV2FmFrd1A

**The Life of a Tower Climber II: Failures at Every Level (2025, 49 min.)**

- www.youtube.com/watch?v=CYeLBMDiorI

**Wi-Fi Refugees. Nowhere to run: Electrosensitive people try to escape wireless technology** by RT America:

- https://rtd.rt.com/films/wi-fi-refugees-electrosensitive/

**Complicit** is an award-winning film documenting human atrocities behind the making of today's wireless devices and batteries. From the mining of toxic metals by child labor in the Congo to toxic chemicals used in China to assemble products, many become ill:

- http://www.complicitfilm.org/

**Modern Slavery and Your Devices** is a three-minute production summarizing the harm:

- https://www.youtube.com/watch?v=vlDNfOXBFLA

**Death By Design** investigates the environmental and health impact of the wireless industry:

- https://deathbydesignfilm.com/about/

**Surrounded** chronicles the story of Sam Wieder and his wife who became ill from the wireless radiation exposures they were saturated in at their home, and offers safe technology remediation solutions:

- surroundedfilm.com/trailer

**Maternal Intuition -- A Natural Born Documentary** documents "the truth about natural birthing and all the concerns that mothers have when they want the best for their unborn children" including low EMFs:

- maternalintuition.com/

Thank you to **Ronald M. Powell, Ph.D. and retired U.S. government physicist**, for sharing recommended videos on the impact of wireless technology:

**(1) Resonance - Beings of Frequency (89 minutes)**

- http://vimeo.com/groups/document/videos/54189727

Produced by James Russell of the U.K.

Focuses on cell towers and cell phones and provides some of the history of the discovery of the sensitivity of humans to electromagnetic radiation.

**(2) Take Back Your Power (about 2 hours)**

- http://takebackyourpower.net
- Three-minute excerpt on harmful effects and allowable radiation limits: https://www.youtube.com/watch?v=64SIGJnAGeU&feature=youtu.be

Produced by Josh del Sol. Focuses on Wireless Smart Meters.

See especially the list found here:

- http://www.takebackyourpower.net/directory/us/

Lists Smart Meter opposition web sites throughout the USA, reflecting growing public concern about exposure to radiation from wireless Smart Meters in particular.

**(3) Smart Meters - The Health Challenge of Our Time (43 minutes)**

- https://www.youtube.com/watch?v=b_wxM6IAF1I

Produced by Dietrich Klinghardt, M.D., Ph.D.

Provides a detailed look at the biological impact of radiofrequency/microwave radiation.

**(4) Smart Meters - A Little Too Smart? (about 5 minutes)**

- http://www.youtube.com/watch?v=8JNFr_j6kdI

Produced by Jerry Day. Focuses on the privacy issue raised by Smart Meters.

**(5) Searching for a Golden Cage (about 13 minutes)**

- http://time.com/golden-cage/

A film by Nadav Neuhaus

Focuses on just one of the many life-changing consequences of too much exposure to wireless technology -- electromagnetic hypersensitivity or EHS.

**(6) This is Not a Tree (about 44 minutes)**

by B. Theidea

- https://www.youtube.com/watch?v=Zeb65FHMM9I

An informal look, by a very aware individual, at the startling expansion of the installation of cell towers in his community.

**(7) The Sounds of Different RF Radiation Sources with a HF Analyzer (about 3 minutes)**

- http://www.youtube.com/watch?v=s99i0H-nBw4

We cannot see, hear, or smell RF radiation, which makes it hard for the public to realize that it is there. But it is there. This video translates digital RF signals from common wireless devices into sounds to give you some idea of what they are like.

**(8) Microwaves, Science & Lies (90 minutes)** by Jean Heches and Nancy de Meritens

- https://www.youtube.com/watch?v=WjSForHPiiM

This documentary describes how the cellular telephone industry and its many allies have endeavored successfully to suppress public awareness of the growing body of biomedical research that finds biological effects of significance from exposure to the microwave radiation from cell phones and cell towers. This French film has been translated into English very competently. This documentary is available for $25. This documentary may also be "rented" from an on-line web service called Vimeo. Once "rented" for a charge of $5, you may view the documentary anytime in the following 48 hour period.
https://vimeo.com/ondemand/17755/89417454

**(9) Electromagnetic Radiation Health for Children 2014 (70 minutes)**

by Dr. Erica Mallery-Blythe, a UK physician

- https://www.youtube.com/watch?v=sNFdZVeXw7M

This video is a wide ranging overview of the impact of electromagnetic radiation on human health, particularly at microwave frequencies, with a special emphasis on children and the school environment.

**(10) Current Concepts in Diagnosis and Management of Electromagnetic Hypersensitivity (36 minutes)**

by Dr. Erica Mallery-Blythe, a UK physician

- http://vimeo.com/100623585

This video is a talk presented to the British Society for Ecological Medicine, Electromagnetic Radiation & Health Conference, London, March 7, 2014. The talk reviews selected information presented also in (9) above and then focuses on the diagnosis and management of the health impact of electromagnetic radiation. This is a fast moving overview for a medical audience, with important observations for all audiences.

**(11) Cell Phones Cause Cancer (October 17, 2012) (9 minutes)**

By Jimmy Gonzalez, Esq.

- https://www.youtube.com/watch?v=DIlOVJd0lA8

This video is the powerful testimony of Jimmy Gonzales, attorney and retired marine, who developed cancer in his left hand (nerve tumor), in his brain (glioblastoma multiforme, level 4), and at the aortic bifurcation after using a cell phone for ten years. He made this video to warn others. Two years later, brain cancer took his life at age 42. More about his life can be learned from his obituary here:
http://www.legacy.com/obituaries/sunsentinel/obituary.aspx?pid=173313910

**(12) WiFi, Microwaves and the Consequences to our Health – Barrie Trower (14 minutes)**

By Barrie Trower

- https://www.youtube.com/watch?v=z99_SzoXZdY&app=desktop

British physicist and microwave expert, Barrie Trower, explains the health risks associated with microwave exposure from WiFi and other sources, with a special emphasis on genetic damage to female eggs and the propagation of that damage to every successive generation. (“Cot death”, referenced in the video, is also known as “crib death” and “sudden infant death syndrome”.)

**(13) Maryland woman suffers acute radiation exposure from a bank of smart meters (January 21, 2015) (3 minutes)**

- (https://www.youtube.com/watch?v=F9QZuWPw6Y0&feature=youtu.be)

Maryland Smart Meter Awareness (http://MarylandSmartMeterAwareness.org) volunteers visited a Maryland resident to help her share her story about the suffering she endured when she was unknowingly exposed to the electromagnetic radiation from a bank of 26 smart meters on the other side of the wall of the condo into which she had just moved.

**(14) Maryland resident experiences adverse health effects from Smart Meter (March 7, 2013) (3 minutes)**

- http://marylandsmartmeterawareness.org/smart-meter-news/maryland-ms-resident-testimony-to-economic-matters-committee-re-hb1038-on-march-14-2013/

Garic Schoen of Gaithersburg, MD testifies about a setback to his health that occurred when a Wireless Smart Meter was installed on his dwelling without his knowledge or approval.

**(15) Wi-Fi in Schools (September 9, 2013)**

- https://www.youtube.com/watch?v=QQryZbxlqXI&feature=youtu.be

This video emphasizes the need for a precautionary approach to Wi-Fi in schools to protect the health of children. Produced by Wi-Fi In Schools Australia. Superb, straightforward production with effective assistance from animation.

**(16) 1000's of smart meter fires: New whistleblower & court evidence (July 14, 2015)**

- http://takebackyourpower.net/1000s-of-smart-meter-fires-new-whistleblower-court-evidence-video/

Brian Thiesen present information on the causes and prevalence of fires caused by Smart Meter fires, and demonstrates that both poor design and improper installation are among the causes. Typically, the electric power companies blame the homeowner for the fires, even though the homeowner has no control over any of the causes.

- The **Environmental Health Trust** lists additional films as well.

Thank you for this opportunity to provide input so we can create solutions to Make America's Children (and Planet) Healthy Again.