Experts Recommend Safeguards for Cell Towers



Dr. J.M. Pearce in *Environmental Research*

"There is a large and growing body of evidence that human exposure to RF radiation from cellular phone base stations causes negative health effects including both i) neuropsychiatric complaints such as headache, concentration difficulties, memory changes, dizziness, tremors, depressive symptoms, fatigue and sleep disturbance; and ii) increased incidence of cancer and living in proximity to a cell-phone transmitter station."

The American Academy of Pediatrics

The American Academy of Pediatrics has repeatedly urged the U.S. government to update its 1996 wireless radiation limits as children are more vulnerable to RF radiation due to their thinner skulls, developing organ systems, and greater absorption rates.

"An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk of developing: headaches, memory problems, dizziness, depression, sleep problems."

European Parliament Report

In July 2021, the European Parliament released a commissioned report titled **"Health Impact of 5G,"** which concluded that widely used RF radiation frequencies (450–6000 MHz) are likely carcinogenic to humans and may harm male fertility and early development stages such as embryos and newborns.

WHO International Agency for Research on Cancer

RF radiation **was classified** as a Group 2B "possible carcinogen" by the World Health Organization's International Agency for Research on Cancer (WHO/IARC) in 2011. Since then, the research linking RF to cancer has only increased. The large scale animal study published in *Environmental Research* by **Falcioni et al. (2018)** found elevated cancer rates in rats exposed to RF radiation at levels permitted for cell tower emissions.

Several independent scientists state that RF radiation would likely be reclassified as a probable or even **proven human carcinogen** if reassessed based on current science.

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Scientific and Medical Recommendations on Cell Towers and Wireless

Hundreds of scientific experts caution that cell tower RF radiation is not safe and that safeguards are needed to protect the public.

The International EMF Scientists Appeal

An appeal by 268 scientists from 45 nations who have published research on EMF bioeffects.

"Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life."



Santa Clara County Medical Association

Best Practices for Schools recommends restricting cell towers at schools because the "growing robust body of peer-reviewed research has shown that this radiofrequency radiation poses significant short and long-term health risks."

New Hampshire State Commission on 5G Health and Environment

The Commission conducted a year-long investigation into RF radiation and released **a final report** advising that children's exposure to RF should be minimized. The report also recommended that cell towers be located at least 1,640 feet away from residences and schools.

A Human Rights Issue

A study by human rights experts (Roda and Perry 2014) published in *Environmental Science and Policy* reviewed the growing science on cell tower radiation and framed the issue as a human rights concern for children, emphasizing the need to protect vulnerable populations from environmental pollution. They conclude that a precautionary approach is more aligned with states' obligations under international human rights law.

"Mobile phone infrastructure regulation in Europe: Scientific challenges and human rights protection."

LINK TO FULL LIST

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Researchers Recommend Keeping A Distance Between Cell Towers, Homes, and Schools

T-Mobile–Funded Review Recommended Limits 1,000× Lower Than FCC

In 2000, the Ecolog Institute Report, commissioned by T-Mobile, recommended a cell tower radiation human exposure limit 1,000 times lower than the FCC's current power density limit after a review of the research on cancer and impacts to the endocrine, neurological and reproductive systems.

> **The precautionary limit should be 0.01 W/m2. This should be rigorously adhered to by all base stations near sensitive places such as residential areas, schools, nurseries, playgrounds, hospitals and all other places at which humans are present for longer than 4 hours.**
>
> **- The Ecolog Institute Report**

Studies Recommend Distance From Cell Towers

Numerous studies have documented a higher prevalence and severity of health-related issues close to cell towers and wireless base station antennas. Thus, multiple peer-reviewed research articles recommend keeping cell towers at least 500 meters (approximately 1,500 feet) away from populated areas to reduce health risks, including:

- **Pearce (2024)** in *Environmental Research* advises base stations be placed no closer than 500 meters to minimize public RF exposure and decrease liability.
- **Rodrigues et al. (2021)** in the *International Journal of Environmental Research and Public Health* recommends deactivating towers within 500 meters of homes, workplaces, hospitals, & schools.
- **Yakymenko (2011)** in *Experimental Oncology* reviewed dozens of studies concluding that current human exposure limits need a re-evaluation and everyday exposures should be minimized.
- **Dode et al. (2011)** in *Science of the Total Environment* found increased tumor-related deaths within 500 meters of cellular base stations in Brazil, stating "More restrictive limits must be adopted urgently."
- **Levitt & Lai (2010)** in *Environmental Reviews* reviewed 100 studies on cell infrastructure and found about 80% showed biological effects, stating "As a general guideline, cell base stations should not be located less than 1,500 feet from the population, and at a height of about 150 feet."
- **Khurana et al. (2010)** in the *International Journal of Occupational Environmental Health* found that 8 out of 10 epidemiological studies reported higher rates of cancer or neurobehavioral symptoms within 500 meters of cell tower base stations.

**Click on report or study for hyperlink to source.*

Recommendations on Cell Towers at Schools



Los Angeles Unified (California) School District Office of Health and Safety

The District Office developed a "cautionary level" for RF radiation 10,000 times lower than FCC regulations because "it is believed that a more conservative level is necessary to protect children, who represent a potentially vulnerable and sensitive population."

Legal Handbook for Massachusetts' Board of Health (3rd Edition)

Includes a **chapter** on cell tower radiation, noting growing public concern. It warns that the widespread presence of towers should not be mistaken as evidence of safety. The **handbook** cites international studies showing significantly increased cancer risks near cell towers, including a German study reporting over three times higher cancer and breast cancer rates within 400 meters, an Israeli study showing a tenfold increase in cancer risk for women within 350 meters, and an Austrian study linking high RF exposure to a 23-fold higher breast cancer risk and a 121-fold higher brain tumor risk.

Catholic Diocese of Basel (Switzerland)

2020 Position; 2025 Switzerland Catholic Church News Article

The Diocese states that studies remain highly disputed but "special sensitivity is required when it comes to protecting against a technology that might be harmful to health. In such cases, the principle of precaution, guaranteed in the Swiss Federal Constitution and ethically justifiable, must be applied."

"As long as the questions regarding health impairments from mobile communication installations remain unresolved, parishes and church communities are strongly advised to exercise restraint and caution when it comes to installing such systems in church towers and church buildings."

"If significant opposition arises against a project, the project should be abandoned."

EPA Guidelines

The EPA's School Siting Guidelines identify electromagnetic field (EMF) exposure and the potential fall radius of cell towers as possible hazards. EPA guidelines **recommend schools "identify and evaluate cell towers within ~200 feet of prospective school locations."** The EPA has **long acknowledged** that the FCC limits for RF radiation—unchanged since 1996—do not account for health risks from long-term, low-level (non-thermal) exposure.

**Click on bolded text for hyperlink to source.*