2020 Consensus Statement of UK and International Medical and Scientific Experts and Practitioners on Health Effects of Non-Ionising Radiation (NIR)

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(Signed by groups representing over 3,500 medical doctors)

On Behalf of:
Physicians' Health Initiative for Radiation and Environment (PHIRE)
British Society for Ecological Medicine (BSEM)

Endorsed by further Medical Groups:
Alborada Foundation (Spain)
American Academy of Environmental Medicine (AAEM)
Australian College of Nutritional and Environmental Medicine (ACNEM)
European Academy for Environmental Medicine (EUROPAEM)
Italian Association of Doctors for the Environment (ISDE Italia)
Kompentenzinitiative (Germany)
National Association of Environmental Medicine (NAEM USA)
Ralf Meyer Akademie Komplementarmedizin

Endorsed by Scientific Groups:
EM Radiation Research Trust (RRT)
Environmental Health Trust (EHT)
International EMF Alliance (IEMFA)
International Guidelines on Non-Ionising Radiation (IGNIR)
Oceania Radiofrequency Scientific Advisory Association (ORSAA)



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The statement reflects the consensus from the most recent independent expert global forums [1,2,3,4,5,6] on the acute and chronic health effects resulting from Radiofrequency Radiation (RFR) exposure.

The statement clarifies the medical community's serious concerns surrounding the deployment of 5G and the continued use of RFR in public spaces.

Urgent action is required to protect the health of humans and wildlife.

Public Health Crisis:

1. RFR has been proven to damage biological systems at intensities below ICNIRP* guidelines.
2. Public exposure to RFR is already harmful and will rise with the deployment of 5G.
3. Exposure is unavoidable, contravening the Human Rights Act for those who do not consent.
4. Multiple international governmental health advisory groups are biased by conflicts of interest.

*ICNIRP: International Commission on Non-Ionising Radiation Protection

Required Urgent Actions:

1. Immediate moratorium on 5G, wireless smart metering and any other new RF emissions.
2. Establishment of public safety limits to be biologically protective against adverse health effects.
3. Withdrawal of Wi-Fi, wireless phone and other RFR emissions from within / near all schools.
4. Designation of low NIR* areas to protect those who are unwell or do not consent to exposure.
5. Education programmes to inform medical professionals about NIR related illnesses / effects.
6. A zero tolerance approach to industrial influence on public health policy and assured exclusion of those with conflicts of interest from official advisory bodies.

*NIR: Non-Ionising Radiation.

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Introduction

During the last four decades, there has been an exponential increase in ambient radiofrequency radiation (RFR) that continues to rise at an unprecedented rate. In addition, the increases occupy an unnatural portion of the frequency spectrum and now reach intensities of up to 10^{18} (quintillion) times higher than natural, background levels of RFR (see Figure 1 below).

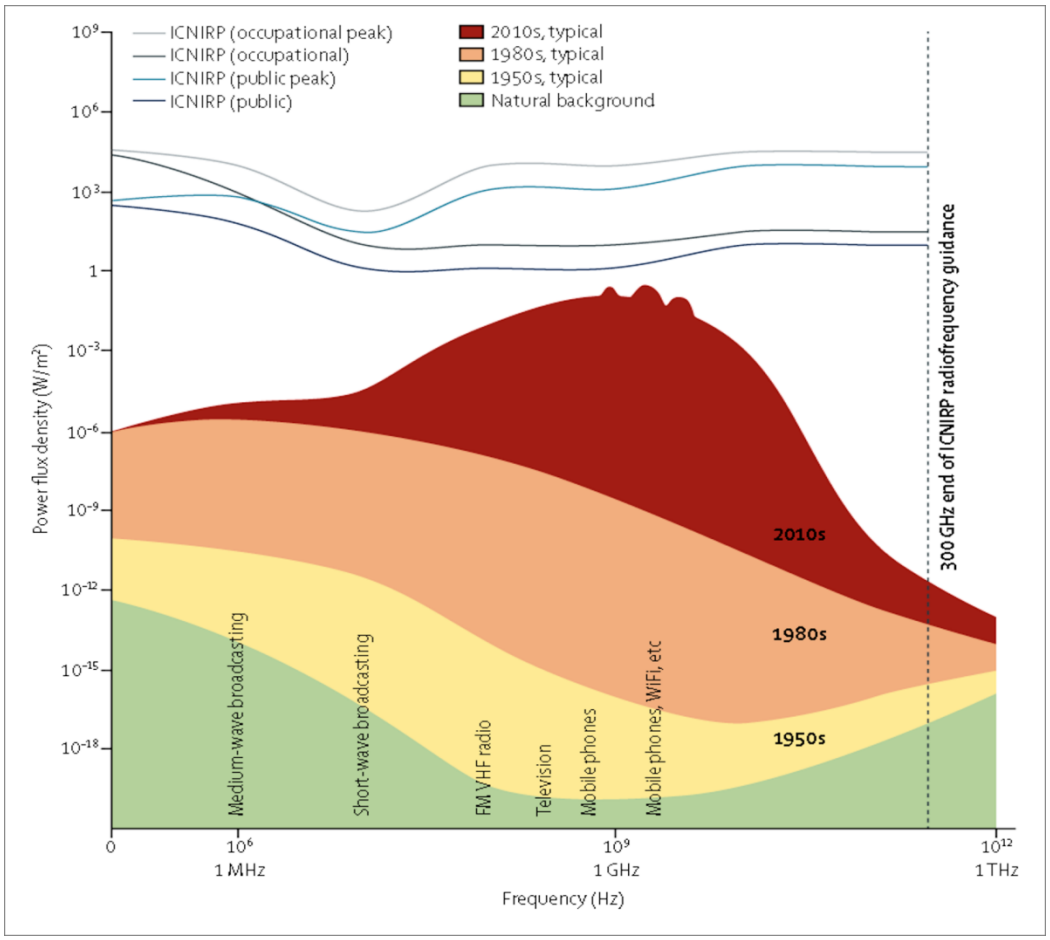


Figure 1: Typical maximum daily exposure to radiofrequency electromagnetic radiation from man-made and natural power flux densities in comparison with International Commission on Non-Ionizing Radiation Protection safety guidelines
Permission: Alasdair Philips, Powerwatch (https://www.powerwatch.org.uk). Published: Bandara P, Carpenter D (2018). 'Planetary electromagnetic pollution: it is time to assess its impact'. *The Lancet Planetary Health;* Vol 2, Issue 12.[110]

RFR is emitted by mobile phones, base stations, Wi-Fi enabled routers and computers, cordless land line phones, security systems, fitness watches, baby monitors, many other modern devices including wearable tech, internally emitting devices and products advertised for use close to foetuses or newborn babies. 5G will include higher frequencies transmitted by directional phased array antennas which have not been pre-market safety tested under realistic conditions in combination with existing emissions. Additionally the planned Internet of Things (IoT) will lead to higher cumulative exposures. International independent experts agree that this evolution is not safe for deployment.[7,8] Existing emissions have already been shown to damage biological systems within lifelike exposure parameters.[9-12] Detrimental effects include increased cancer risk, increase in harmful free radicals, genetic damage, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans.[7] The addition of higher frequencies and overall increased exposures are therefore predicted to cause further health damage.[13,14]

The following pages summarise some of the evidence supporting our concerns.

Background

1) Cancer risk noted from human epidemiological research corroborated by largest new animal studies:

In 2011, the World Health Organisation (WHO) via the International Agency for Research on Cancer (IARC) classified RFR as Group 2B 'Possibly carcinogenic to humans'.[15] Glioblastoma Multiforme (GBM), an associated rapidly progressive fatal brain cancer, and acoustic neuroma, satisfy the Bradford Hill criteria for causation from RFR exposure based on human epidemiological studies.[16] Human epidemiological evidence has continued to accumulate since.[17-23] In 2018 the highly credible US National Toxicology Program (NTP) published findings from the largest animal study so far conducted,[24,25] declaring the evidence for carcinogenesis 'clear' and putting pressure on IARC to urgently reassess and elevate RFR to Group 1 'Known Human Carcinogen'.[26,27] Furthermore, the large-scale Ramazzini Institute study,[28] which used far field radiation designed to emulate base station type RF emissions, was published shortly afterwards and independently confirmed promotion of carcinogenesis in cells of glial derivation. Legal authorities continue to validate the causal link between RFR and tumours.[29] Incidence rates for these kinds of brain tumours are rising in the UK,[30] Netherlands,[31] Australia,[32] and USA.[33,34]

2) Global medical, scientific, political and ethical warnings are escalating:

Accompanying this warning from WHO / IARC are warnings from numerous international medical doctors groups,[8,35-43] scientific panels,[9-11,44-55] and governmental bodies.[56-66]

3) Enough valid research has been conducted to justify action to protect against health effects:

Many hundreds of peer-reviewed scientific papers have now been published demonstrating biological effects occurring in response to exposure to NIR at a range of frequencies. It should be noted that modulations to RF communications fall within the Extremely Low Frequency (ELF) range. It remains unclear whether it is the RF or ELF frequencies that are most bioactive, but that academic question does not need to be answered at this point in order to be clear that the technology is not safe, as both existing and proposed emissions contain both portions of the spectrum integrated in this way. The evidence base for certain types of biological interference is extremely strong. In excess of 90% of publications noted oxidative stress, both in vitro and vivo (animal studies).[67] Oxidative stress can damage multiple biological systems and is implicated in many diseases of high public health importance such as Alzheimer's, cancer, cardiovascular disease and infertility.

4) ICNIRP 'safety' guidelines are not protective:

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines (devised in 1998) only avoid acute, thermally induced (tissue heating) effects).[68] They do not protect against chronic effects, or the copiously documented non-thermal, low intensity effects of NIR, which can occur several hundred thousand times below current ICNIRP guidelines.[9] Additionally, non-compliance with these guidelines has been demonstrated.[69,70] Concerns regarding conflicts of interest have also been raised.[71,72] Analysis of proposed 5G emissions has shown that the exposure limits "tolerated by ICNIRP may lead to permanent tissue damage even after short exposures".[73] Their updated guidelines[74] address this issue but actually allow higher overall cumulative exposures and hence concerns persist.[75] They have been shown to make "extensive incorrect and misleading statements" in important literature appraisals[76] and various independent expert research groups have suggested evidence-based replacement guidelines.[9,77,78,94]

5) A growing global movement to protect citizens by authorities has begun:

Some countries have chosen to adopt safety limits orders of magnitude below ICNIRP guidelines based on scientifically observed biological effects. Furthermore, some, such as France,[61] have already banned or restricted Wi-Fi in certain child education settings. Others, such as Cyprus, have government-led, targeted public information campaigns and medical statements published to better inform and educate their citizens.[65] These important steps are overdue in the UK and public health agencies are currently failing in their duty to safeguard and inform the UK population regarding the proven hazards of these emissions.

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6) Health authority guidance is often out of date, biased and inaccurate:

Resources from advisory groups including Public Health England (PHE) and WHO, are lacking appraisal of the latest research regarding this fast-moving subject. Additionally, there are often conflicts of interest within such groups and many of their public statements do not stand up to scientific scrutiny.[71,76] Specifically, the Advisory Group on Non-Ionising Radiation (AGNIR) report of 2012 that was used to construct current UK policy is out of date and has been found to be "inaccurate", "biased" and "misleading".[79] The group has disbanded but, nonetheless, the report is still being used to inform current policy.[80]

7) Sensitive sub-groups are neglected:

Age, gender, genetics, Electromagnetic Hypersensitivity (EHS) (see below) and co-morbidities may all affect individual vulnerability. Pregnant females and their foetuses are also especially vulnerable.

Children are more vulnerable due to multiple factors:[81] It is noteworthy that brain tumours have overtaken leukaemia as a leading cause of cancer death in young people.

a) Children absorb more radiation:
   - The brain of a child (age 5-8yrs) can absorb 2x the radiation of an adult.[82]
   - Exposure in bone marrow can be up to 10x greater than an adult.[83]

b) Outcomes in children may be worse as:
   - Children have systems which are still developing.
   - Children have a longer time ahead for latent effects to manifest.

There is inconsistent advice regarding radiation exposure for children in the UK. The Chief Medical Officers (CMO) state that: "Children and young people under 16 should be encouraged to use mobile phones for essential purposes only".[84] This advice is also underpinned by a medical doctors' appeal (signed by more than 1,000 physicians)[40] stating "Children below the age of 8 should not use cell phones and cordless phones; children and adolescents between the ages 8 and 16 should also not use cell phones or only use them in the case of an emergency".
However, this advice has never been effectively communicated to the public and children are still encouraged to use RFR emitting tablets, computers and numerous other wireless devices (sometimes including mobile phones) in school. The same caution should apply for tablets and other similar RFR sources as their maximum Specific Absorption Rates (SARs) are comparable and in some cases higher.

Additionally, these devices are often held near to sensitive areas such as the reproductive organs. Wi-Fi shares the same carcinogenic status as other forms of RFR under the IARC classification and is also "an important threat to human health" in numerous ways, additional to its carcinogenicity.[85] Hard wired alternatives should clearly be implemented in schools.[86,60-65]

Those with Electromagnetic Hypersensitivity (EHS) are also acutely vulnerable:

EHS is a multisystem medical condition characterised by physical symptoms associated with anthropogenic NIR exposure. Similar constellations of symptoms may also be seen in the general population in cases of relatively high exposure.

Some have suggested a 'nocebo response' (symptoms induced by fear of exposure) as the mechanism behind the reaction. This explanation does not withstand scientific scrutiny. EHS is proven to be a physical response under blinded conditions,[87,88] biomarkers are being identified,[89] and mechanisms that may explain the reaction are evolving.[90-93]

Advice from multiple international medical doctors groups and governmental bodies is to decrease exposures in order to relieve symptoms (also see point 2 above). Additionally, guidelines for EHS diagnosis and management have been peer-reviewed and published which make clear that the mainstay of medical management is avoidance of anthropogenic NIR.[94-96] Disability and compensation cases for those with EHS are already being won and will continue to escalate.

8) Human Rights:

There are clear human rights violations, particularly for vulnerable groups.[97] In essence many of these also apply to any individual who does not consent to exposure in their home, place of work or public building and yet is being given no choice. People all over the world are making their unwillingness to be exposed abundantly clear via protests, letters,[98] and where there is resource, legal actions.[70,99-103]

At its core, this is an issue of consent and there can be no defensible argument for forcibly exposing those who do not consent. That is a breach of the Nuremburg Code as well as numerous Human Rights. The 'Rights of a Child' and unborn child are currently also being contravened by these exposures and parents who strive to protect their children currently have no avenue to achieve this without complete public isolation. Indeed, they may even be unable to prevent their children's exposures in their own property given the penetration of NIR over large distances and through walls.

There are adults and children who have severe acute symptoms and in some cases they can prove life threatening. Additionally, the extreme measures some are forced to take to avoid exposures (such as primitive camping for example) can also lead to lack of access to medical care, social support, isolation from basic necessities such as food, water and shelter and to hostile exposures such as extremes of temperature.

It is noteworthy also that as individuals prove they have been harmed by RFR exposures, which is certainly already happening,[29] there is also likely no insurance coverage, which enhances the injustice of this situation. Following in-depth analysis of the scientific literature and thorough risk assessment, underwriters consider risks of RFR to be "high impact".[104] Governmental and other public bodies could therefore be forced to 'self insure'. This would present the very unethical situation that the taxpayer could ultimately pay for health damages incurred by exposures that they never consented to and in many cases actively refused.

9) Precautionary Principle and public Health:

The application of the Precautionary Principle[105] has been called for over many years, by multiple credible, professional organisations and most recently by the European Parliament.[66] This is now crucial in order to protect both public health and the economy given the already apparent escalating health and social care costs. RFR has been proven to damage biological systems at levels well below those claimed to be safe within the ICNIRP guideline levels. Public exposures to existing levels of RFR are already harmful and will rise substantially with the deployment of 5G.[106,107]

In truth, we are now beyond the point of precaution and protection of vulnerable groups is an emergency. RFR has been repeatedly shown to cause widespread, multisystem health detriment,[67] and effects on the immune system have been demonstrated in some peer-reviewed published studies.[108]

Given the extraordinary pressure on public health provision in 2020, the simple measure of halting further RFR exposures via 5G is a reasonable and proportionate measure in order to optimise the biological resilience of the population.

Given the current planetary environmental crisis and impact of electromagnetic fields also on the health of wildlife,[109-111] and with higher 5G frequencies affecting insects in particular,[112] it is not just protection of human health from harmful effects of anthropogenic radiation which constitutes an emergency but actually that of all global life.

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Conclusion

The short-sighted reason given for the race to deploy 5G is economic growth. This argument is fallacious given that a physically and mentally unhealthy community will never be able to fulfil their true potential for economic growth and productivity. Even small impairments to certain health parameters can equate to very large public health detriment when large numbers of individuals are affected. In this case the entire population will be affected and this could therefore have highly damaging implications both for the overall health of nations and, consequently, for their economies.

There need to be sincerely progressive remedies to facilitate technological evolution in ways which are not damaging to biological systems, and these can only be pursued once the current science is honestly appraised and medically ethical solutions are actively sought. Right here and right now, hard wired alternatives present a safer, sustainable and accessible path forward.

We the undersigned state that the above 'Urgent Action Points' must be addressed immediately by the UK Government and other governments internationally, in order to prevent avoidable human injury, disease, deaths and potentially irreversible environmental damage. Citizens must retain the right not to be exposed against their will. Where prevention of harm may have already failed we also request clear communication to the public regarding who is responsible and liable for health damages. We request a response from Public Health England and Her Majesty's Government to clarify accountability and the measures which will be taken to address the above 'Urgent Action Points' within 28 days of receipt of this communication.

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