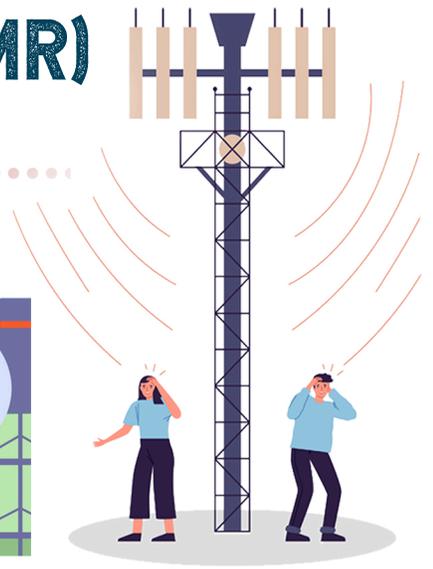


ELECTROMAGNETIC RADIATION (EMR)

UNDERSTANDING THE RISKS



RF RADIATION: A POSSIBLE HUMAN CARCINOGEN

In 2011, the World Health Organization's International Agency for Research on Cancer (WHO IARC) classified radiofrequency electromagnetic fields (RF EMFs) as **'possibly carcinogenic to humans'** based on an increased risk of glioma—a malignant type of **brain cancer**—identified in those who used cell phones for over 10 years for an average of 30 minutes per day. **WHO IARC has recommended the status of RF EMFs to be re-evaluated 'with high priority'**.

ELECTROMAGNETIC SENSITIVITY (EMS) SYMPTOMS

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Research Article
The Prevalence of People with Restricted Access to Work in Manmade Electromagnetic Environments

Michael Bevington

Headaches, nausea, vomiting, dizziness, sleep problems, heart palpitations, tinnitus (ringing in the ears), vertigo, skin rashes and memory and cognitive issues are all documented symptoms of a condition known as Electromagnetic Sensitivity (EMS). EMS, a recognized disability, can be described as a heightened sensitivity to radio frequency radiation from sources such as smartphones, WiFi and cell towers. **According to some estimates, it affects up to 30% of the population.**

CHILDREN ARE MORE VULNERABLE

Children, due to their smaller heads and thinner skulls, are particularly vulnerable to RF radiation exposure. According to the American Academy of Pediatrics, **"Children ... are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation.** In fact, according to IARC, when used by children, the average RF energy deposition is two times higher in the brain and 10 times higher in the bone marrow of the skull, compared with mobile phone use by adults." In human and animal studies, exposure to RF radiation has been associated with several health issues such as **behavioral problems, hyperactivity, decreased learning, memory reduction, and an increased risk of autism and asthma.**



RF RADIATION CLEARLY AFFECTS MALE FERTILITY

Health impact of 5G



Current state of knowledge of 5G-related carcinogenic and reproductive/developmental hazards as they emerge from epidemiological studies and in vivo experimental studies

EPRS | European Parliamentary Research Service
Scientific Foresight Unit (STOA)

A study by the European Parliamentary Research Service, titled the *Health Impact of 5G*, concludes that certain ranges of RF radiation **"probably cause cancer,"** particularly gliomas and acoustic neuromas in humans. They also **"clearly affect male fertility," "possibly affect female fertility,"** and **"possibly have adverse effects on the development of embryos, fetuses and newborns."**

Learn more at:
childrenshealthdefense.org/wireless

ELECTROMAGNETIC RADIATION (EMR)

EXPLORING THE SCIENCE

MILLIMETER WAVES PRODUCE BURNS ... AND MORE



Millimeter waves (mmWave) are the highest frequency radiation ever used in mass telecommunications networks. **Preliminary observations show that mmWaves increase skin temperature, alter gene expression, promote cellular proliferation, induce oxidative stress, affect inflammatory and metabolic processes, may generate ocular damages, and affect neuro-muscular dynamics.** According to 5G industry expert, IEEE, "...thermal injury due to overexposure of mmWave is expected to produce superficial burns like those produced when a person touches hot objects or flames. In other words, mmWave-induced burns will likely generate **blistering and local inflammatory responses that are similar to conventional burns...**"

RF RADIATION AFFECTS BEES, TOO.

Bees play an integral role in the proper functioning of ecosystems and are an essential part of our food chain. According to scientific research, exposure to radiofrequency radiation affects the behavior and physiology of honey bees, resulting in **reduced motor activity and a significant decline in the egg-laying rate of the queen.**

Exposure to Cell Phone Radiations Produces Biochemical Changes in Worker Honey Bees

Neelima R. Kumar, Sonika Sangwan, and Pooja Badoira

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NO LONG TERM SAFETY STUDIES

There are **no studies demonstrating the long-term effects of prolonged exposure to 5G technologies.** In fact, during a congressional hearing in 2019, a VP in the telecom industry admitted under oath: "To my knowledge, there's no active studies being backed by industry today." To this, Senator Blumenthal, member of the Commerce, Science, & Transportation Committee, responded, "**So there really is no research ongoing. We're kind of flying blind here, as far as health and safety is concerned.**"

EMF SCIENTIST APPEAL

According to an appeal by expert EMF scientists, "Numerous recent scientific publications have shown that RF-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."



RF FROM SATELLITES

The deployment of 5G and other new internet services will require tens of thousands of additional satellites in low earth orbit. This has already been shown to produce light pollution in the night sky and may produce other health and environmental concerns such as **air pollution, damage to the ozone layer, increasing Earth's albedo, and increasing the overall RF exposure of all living things.**

CHD v. FCC: A HISTORIC WIN

In a historic win for CHD in 2021, a federal court held that the FCC had failed to consider the vast amount of scientific literature on the **cumulative effect of exposure from multiple RF sources, the biological effects of sophisticated modulation and pulsation, oxidative stress and DNA damage, the particular vulnerabilities of children, the negative impacts on nature and wildlife, and the effects on the brain and nervous system, fertility and the electrosensitive.** The court tasked the FCC with providing "...a reasoned explanation for its determination that its guidelines adequately protect against harmful effects of exposure to radiofrequency radiation..."

'Historic Win' by Children's Health Defense in Case Against FCC on Safety Guidelines for 5G and Wireless

Children's Health Defense

August 16, 2021 - 5 min read

Press Event Monday, August 16 at 10 a.m PT / 1 p.m. ET by Zoom

Washington, DC, Aug. 16, 2021 (GLOBE NEWSWIRE) -- Children's Health Defense (CHD) won its historic case against the Federal Communications Commission (FCC) on safety guidelines for 5G and wireless.

Learn more at:

childrenshealthdefense.org/wireless