

THE HEALTH, ENVIRONMENTAL AND PRIVACY RISKS OF WIRELESS



OVERVIEW

Through **litigation, education, advocacy and science**, Children’s Health Defense’s (CHD) EMR + Wireless program **tackles the rapid, uncontrolled and poorly regulated expansion of wireless technology** – including Cell Towers, Small Cells, Smart Meters, IoT devices, WiFi, Cell Phones – in an effort to bring the ever-growing body of scientific evidence demonstrating human, environmental and privacy risks, to the fore of the conversation. We work aggressively to expose and fight back against captured agencies’ decades-old regulatory abuses on public health, the environment and human liberty.

HEALTH RISKS

1. The radiofrequency (RF) signals emitted by wireless technologies are biologically active and **have been shown to produce significant adverse health effects at levels well below national exposure guidelines, including** “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.”
2. The **national exposure guidelines**, adopted by the Federal Communications Commission (FCC) in 1996, are based on the thermal-only paradigm — meaning that harm to human
3. health can only be induced by heating of human tissue. This is fundamentally flawed because interactions between RF signals and the human body are governed by the interactions of their electromagnetic fields (not tissue heating), and scientific evidence shows that serious health effects are induced at non-thermal levels. **These guidelines are outdated and inadequate to protect against modern exposure to RF environments.** Furthermore, the FCC is known to have a “revolving door” for industry lobbyists and favors the advancement of telecom objectives over the safety of the public.
3. The WHO International Agency for Research on Cancer (IARC), in 2011, classified RF as “possibly carcinogenic to humans” based on an **increased risk of a certain type of brain cancer** associated with wireless phone use.
4. **Particularly vulnerable populations include children, pregnant women and those with Electromagnetic Sensitivities (EMS).** As such, stringent public health and environmental safeguards are needed.

5. In a historic win for CHD against the Federal Communications Commission (FCC) in 2021, the D.C. Court of Appeals found that the FCC had failed to consider, much less address, the vast amount of scientific literature regarding the record evidence that **exposure to RF radiation at levels below the Commission’s current limits may cause non-cancer-related health effects**. Subsequently, the Court found that this failure undermines the FCC’s conclusions on:

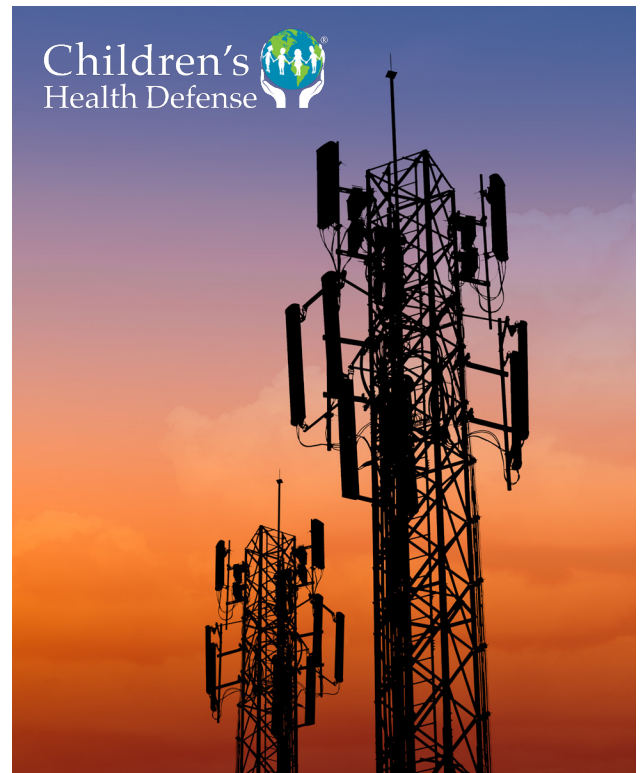
- the adequacy of its **testing procedures** (particularly in children);
- the implications of **long-term RF exposure**;
- exposure to **RF pulsation or modulation**, and
- the **implications of technological developments** that have occurred since 1996 (when the RF exposure guidelines were adopted by the FCC).

ENVIRONMENTAL RISKS

1. There is growing scientific evidence that **RF radiation is a potent environmental toxin**. According to a study, the exponential increase of wireless technology has substantially altered the RF environment on Earth from extremely low natural levels by approximately 1,000,000,000,000,000,000 (10^{18}) times.
2. RF radiation has also been **shown to produce biological damage in trees, disrupt the navigation abilities of birds, and decline the colony strength and egg-laying rates of bees**. Since humans and wildlife are critically dependent on the electromagnetic environment of the Earth, **these effects may have dire and unpredictable consequences on both nature and humanity**.
3. In CHD’s historic win against the FCC in 2021, the Court found that the **FCC completely failed to respond to comments concerning environmental harm** caused by RF radiation.

PRIVACY RISKS

1. Compared to previous wireless network generations, 5G, via its dense macro and small cell antenna network and other technologies, has the ability to simultaneously connect **significantly more devices** to the internet. This directly enables the Internet of Things (IoT), a massive network of real-world objects embedded with sensors and other technologies, to collect and harvest real-time data. Purpose-built for surveillance and population control, **the 5G-IoT is the infrastructure that directly enables smart grids, smart cities and digital IDs**.
2. In 2020, the U.S. Government Accountability Office (GAO) published a **technology assessment report** on the 5G wireless network. Regarding privacy, the report finds that **5G networks will exacerbate existing privacy concerns** by introducing “new kinds of user data, including more precise location data.”



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