

WIRELESS EXPOSURES MUST BE REDUCED

Modern society has enabled destructive pollution of all kinds to infiltrate the pristine beauty of the planet's ecosystem and our bodies. In the process, this assault has disrupted the natural balance of communication throughout the natural world and limited our potential to thrive, both individually and as a species.

The government MAHA report "Make Our Children Healthy Again Assessment" lists many underlying factors driving growth in chronic illnesses, including diet, toxic materials, medical treatments, environmental factors and electromagnetic fields.

Unfortunately, it won't be easy to face off against deeply entrenched commercial interests to address them. Many corporations operate without a moral compass, focusing on short-term profits, stock prices, and growth for growth's sake, perhaps checking boxes in the name of being "green" but without concerning themselves with the interconnected whole of which we are privileged to be a part. There is no road map for raising consciousness and motivating society's political and business leaders to transform whole industries and economic systems to be supportive of life.

There is a need to reimagine, redesign and recreate a world in which humans cooperate with Nature and flourish, rather than struggle with toxic environments. What about our culture that encourages us not to think of our bodies as interdependent living systems within the larger ecosystem around us? What is it that fosters a narrow, materialistic, and self-oriented worldview lacking appreciation for the critical responsibility—and opportunity—we have to nurture life?

What if our culture were to radically shift its orientation toward a commitment to making the health of biological systems our number one priority throughout all sectors of the economy—including in the very harmful telecommunications (telecom) industry?

CHANGE IS NEEDED

For over fifteen years, we have been focused on the ever-increasing wireless radiation pervading our lives. We desperately need to transform how we use these communication technologies as well as how they are delivered. There are well-established ways to enjoy advanced communications more safely and responsibly than we do today.

Hard-wired communications technologies such as fiber, cable and, for home-based electronics are preferable for health concerns. Ethernet cables—all readily available today—are faster and more secure, resilient and energy-efficient. In addition, hard-wired technologies, unlike wireless technologies, do not cause biological dysregulation and disease. Except in cases where mobility is legitimately needed, such as with a cell phone, wireless access is an inferior technology, despite much hype.

Although hard-wired technologies are the better option, the telecom industry markets wireless technologies as if they were superior, claiming that each follow-on generation is "faster" and more desirable, without explaining that wireless communication will never be as fast as hard-wired connections because it is a shared medium. We all enjoy the conveniences of mobility, but if we understood biological science, most of us would not welcome wireless risks in our homes or neighborhoods.

DECades of Research

We are all subject to the widespread marketing of wireless technologies, which persuades us that the technologies are a good thing. We assume that products like cell phones and wireless routers, or the cell towers in our neighborhoods, would never be allowed on the market if the radiation they emit were harmful. Few of us understand that no US government entity has ever said that wireless radiation is safe.

Actually, decades of scientific research—amounting to thousands of studies, including large review studies by the US government itself—indicate that there are serious biological and health impacts to humans, animals, and the ecosystem from exposure to wireless radiation.

Way back in 1971, comprehensive government research from the Naval Medical Research Institute documented a wide range of wireless risks, as did the Defense Intelligence Agency in 1976, NASA in 1972 and 1981, the EPA in 1990, the US Air Force in 1994, and the Department of the Army in the mid-2000s.

In an unusual move, one branch of the federal government (the Department of the Interior) even criticized another department (the National Telecommunications and Information Administration in the Department of Commerce) in 2014, charging that the exposure guidelines set by the Federal Communications Commission (FCC) are inadequate to protect wildlife. Scientists in dozens of other countries have documented wireless risks in many meta-analyses. Yet, when the wireless communications revolution began in earnest in the 1990s, this long-standing body of research was overlooked entirely.

We should be asking why no action has been taken to limit wireless exposures. Wireless radiation continuously degrades our physiological functioning over time, including in less sensitive people who are unable to perceive the effects initially. “Boiling the frog slowly,” as the saying goes.

How can it be that today, decades after government research showed a clear connection between radiofrequency radiation and biological harm, dozens of bills are before Congress seeking authorization for still more wireless? Bills seek to authorize more wireless spectrum (which will accelerate cell tower rollout); eliminate environmental reviews; approve funding allocated for high-speed broadband for wireless instead of for fiber; and gain approval for cell towers in national forests and national park recreation areas, despite the known fire risks. There is even a bill to allow antenna installation on any structure without consent.

Why does the federal government still subsidize the deployment of wireless infrastructure and services with taxpayer dollars, when the harms are well-established? Congress is listening only to the telecom industry and being deceived about safety and is selling a bill of goods.

Rising Health Risks

Seeing the writing on the wall, insurers have long refused to insure telecom service providers for health-related liabilities. Risk from electromagnetic fields has been placed in the highest category of *casualty risk*, and the 5G networks rolling out today have been called a high “*off the leash*” risk. In the annual reports (Form 10-K) that the Securities and Exchange Commission (SEC) requires from public companies, wireless service providers classify the radiation their transmitters emit as a “pollutant,” informing shareholders that they may incur significant financial losses due to the liability.

Wireless companies do not provide the consumers of these technologies or the people living near cell towers with the same risk information available to insurers or the SEC. Despite the long-standing red flags about risks from wireless exposures, wireless communication technologies continue to experience explosive and virtually unregulated growth, with over seven hundred billion dollars invested in network development to date. By 2023, wireless data traffic had grown to over one hundred trillion megabytes (MB). That same

year, healthcare costs in the US rose to almost five trillion dollars, up from one and one-half trillion dollars in 2000. Approximately 90% of health care costs today relate to chronic illness.

The 1971 US Navy findings showing extensive biological and health effects from radiofrequency radiation—the same radiation emitted by today's cell phones, wireless technologies and infrastructure—emphasizing that the US government's own research linked many of today's fastest growing chronic illnesses to wireless radiation exposures long ago. The Navy's report, authored by Dr. Zory Glaser, PhD and titled *Bibliography of Reported Biological Phenomena (effects) and Clinical Manifestations Attributed to Microwave and Radio frequency Radiation*, forewarned about the wireless risks that have gone on to drive today's chronic illness epidemic.

Dr. Glaser reviewed over two thousand studies published in international scientific literature at the time and detailed the connection between wireless radiation and a wide range of biological and health effects. Because this occurred long before there was a consumer cell phone industry, the findings were derived from military and industrial research. Documented effects were body-wide and included central nervous system effects; genetic and chromosomal changes; reduced fertility; blood clotting; gastrointestinal, vascular and metabolic disorders, including changes in blood glucose concentration; and much more.

Antenna infrastructure began rolling out across the US in earnest in 1990. By 2015, twenty-three of the fastest-growing chronic diseases were conditions that Dr. Glaser had identified in 1971 as risks from radio frequency radiation. Had regulators listened, we certainly wouldn't have as large a chronic disease epidemic as we do today. Other factors certainly contribute to chronic illness, but the weight of the evidence is overwhelming that radiofrequency radiation exposure adds to the risk of most or all of these diseases.

From 1971 on, regulators from the FCC and FDA have turned a blind eye to the damning evidence in the US Navy study and to subsequent US government-funded studies, also ignoring the large and still growing body of research from around the world showing risk. Regulators have appeared to be more interested in advancing the commercial interests of the telecommunications industry than doing their jobs to protect public health. Their inaction adds to the dangerously false sense of safety that many still have today.

Results of a poll conducted by Safra Research Lab on Institutional Corruption, included in the report, showed that most people would make different technology choices if aware of the risks of wireless radiation. The poll indicated that with adequate risk information, consumers would likely take action to reduce wireless use, restore landlines and protect children, of course with potentially significant economic consequences for all related industries.

TIME FOR CONCERTED ACTION

Many of us have felt angry and powerless, not knowing what to do as new small cell antennas go up on utility poles, streetlamps, street signs, and often just outside our homes. We rationalize, wanting to believe that the smaller antennas must be less dangerous, but nothing could be further from the truth. The antennas may be less obvious than cell towers, but they are still extremely powerful, employing a wider range of frequencies—from 700 megahertz up to 90 gigahertz—and often simultaneously using several different bands.

The new technology also has far more intensive modulation and pulsation, which can be just as damaging as the energy itself. The worst part is these antennas are much closer to people than before, and proximity increases the danger. Many families now have small cell antennas within mere feet of their residences, pointing tight beams directly through bedroom windows.

With wireless radiation becoming increasingly hard to escape, it is making life extremely difficult for some people. Students in high-radiation classrooms, people in communal office settings and people near cell towers often have difficulty thinking well. Some people must head to the hills or sleep in cars to get a good night's sleep. People affected in these ways currently may account for a small percentage of the population, but surveys show that they number in the millions, and with each added exposure and new generation of technology, the number of symptoms gets higher and higher.

In New York City today, thousands of high-powered thirty-two-foot-tall jumbo cell towers are being installed on sidewalks. The towers contain multiple tiers of antennas beaming into second- and third-floor windows. After years of research on wireless risks, the installation of these jumbo cell towers in close proximity to human beings literally looks like murder. In New Jersey, battles are ongoing over thirty-five-foot cell towers planned along the beautiful Jersey Shore beaches.

Companies have placed antennas in bell towers, church steeples, on top of apartment buildings and water towers, and have even concealed them in the elevator shafts of high-rise buildings, impacting the health of people living in adjacent apartments without their knowledge.

Whereas wireless radiation may be invisible, cell towers and large antenna farms are not. Most of us can't help but notice the ever-increasing aesthetic blight in our midst from this industrial infrastructure. The sight of antennas disguised as trees or cell towers on school property or antennas on hospital roofs—a pervasive visual infrastructure that is the antithesis of health and healing—is offensive.

It is essential that we acknowledge that the esthetics of an environment matters. Beauty matters. Architecture matters. Harmonic environments matter. Environments supportive of communities matter. Peace within our soul matters. All support biology and our outlook on life. The esthetic blight in America today, including the ever-increasing number of cell towers and antennas, impacts us all.

Hundreds of new activist groups focused on wireless risks have sprung up in communities all across the country and the world. For almost two decades, these groups have educated the public about wireless risks and about various ways to minimize risks. Whole industries have sprung up to help people, selling meters to assess exposures, shielding paints, protective fabrics and more. Enrollment in the Building Biology Institute's educational and certification programs has ballooned, as people seek the technical knowledge to measure radiation levels and serve their communities. At some public libraries library patrons can even check out a meter on loan.

Local communities attempting to fight cell towers and antennas have faced the rude awakening that it is almost impossible to succeed, at least on health or environmental grounds, unless the community has enacted well-drafted protective ordinances. This is because, just prior to President Clinton's signature, lobbyists for the telecommunications industry inserted language in the Telecommunications Act of 1996 (Section 704), that removed the rights of state and local governments to regulate the siting of towers and antennas on health or environmental grounds.

The federal preemption in Section 704 served an important purpose for the telecom industry. It facilitated rapid, expedited deployment of cell towers and antennas across the country with little resistance, while leaving Americans uninformed about the dangers. It also led courts to dismiss private lawsuits seeking relief from related personal injuries and property invasions, such as health effects, environmental impacts, esthetic blight, property devaluation, temporary housing needs and relocation costs.

The FCC has authorized the activity, so individual relief would “conflict” with the purposes and objectives underlying the FCC’s rules. The result is injured individuals have been deprived of their Constitutional rights and left with no recourse except to relocate, at their own expense, or to submit to ongoing exposure. The FCC does not have the power to issue a license to kill and maim and destroy people’s right to object to personal and property invasions of this sort.

Section 704 has also tied the hands of local authorities who would otherwise restrict cell tower and antenna deployment too close to homes otherwise restrict cell tower and antenna deployment too close to homes and schools, in recreational areas and near flora and fauna and vulnerable ecosystems.

Something new and hopeful is emerging in the field of EMF activism. The focus has expanded from a local, understandably self-protective focus, with people mostly wanting to know how they can be safe, to collaborative initiatives that are asking two critical, societal-level questions:

1. What can we do to halt the non-stop proliferation of cell towers and antenna infrastructure nationwide?
2. What is it going to take to revise the FCC exposure guidelines so that they are biologically based and reflect wireless radiation’s effects on biological systems?

Groups are coming together to press the change on both issues. Many realize that together, they may be stronger, and that it may take groups in the US working together to fuel and finance the changes needed. Regarding the first question, people are fed up with the never-ending antenna proliferation that is polluting lives and landscapes and making them sick. Many are shocked to learn that their government has suppressed well-established risks for decades and is still working on behalf of industry interests.

Children’s Health Defense and Environmental Health Trust have challenged the FCC’s inadequate exposure guidelines—a core enabler of the proliferation of wireless infrastructure—in the DC Circuit Court of Appeals. That court ruled in 2021 that the FCC’s refusal to update its guidelines was unjustified, did not address the extensive evidence of health risks (especially to children) and also ignored other environment harms.

For over four years, the FCC has refused to honor the court mandate to justify its guidelines; despite repeated requests and reminders, it has left its inadequate and outdated rules in place. As a result, wireless service providers, real estate owners allowing transmitters on their property, manufacturers of wireless equipment and others cannot be sued for the harm they inflict. In response, CHD has spearheaded a major new collaborative effort, *704 No More*, which seeks to finally defang Section 704 and restore local rights over the placement of antenna infrastructure, as well as restore Constitutional rights for injured parties, who, to date, have had no recourse.

It is unimaginable that there could be a law that blocks consideration of health effects for an exposure that people are unable to avoid. This is tantamount to abrogating the basic right of self-defense. Radiofrequency radiation exposures are biologically disruptive at levels well below the FCC’s exposure guidelines. The federal preemption over such an important public health issue must be reversed and the rights of local governments to protect their communities must be restored.

It is time to assert sovereignty over our living environment, meaning the environments within our homes—where everything should be hard-wired—and in our neighborhoods, where access networks should be “fiber to the premises,” not cell towers or small cells. We must protect biological life in our larger home—the environment—as well. Through expanded consciousness, we may come to better appreciate the harm that has been inflicted by electromagnetic fields and become sincerely committed to correcting our present unconscious and destructive trajectory.