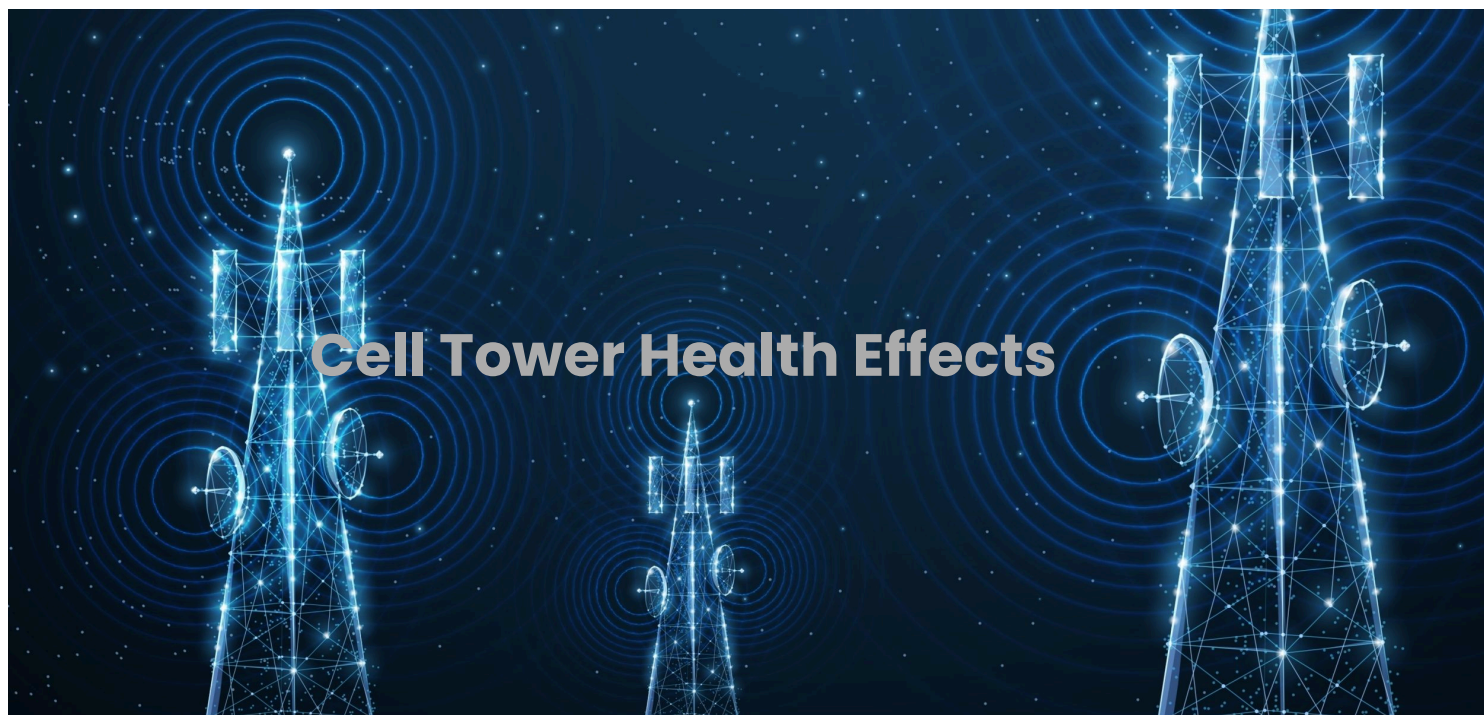


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As cellular infrastructure rapidly expands, so do concerns about health and safety risks—especially for children and those living near towers. Growing scientific evidence, expert guidance, and global policy trends are all converging in support of stronger protections. Yet in the U.S., regulations remain outdated, and communities often face the construction of towers near homes, schools, and playgrounds without recourse.

What are the health effects of cell tower radiation? This page brings together scientific evidence, policy responses, legal insights, and real-world community actions to inform the public about cell towers and health.

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- [Scientific Research on Cell Towers and Health](#)

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Cell Tower Health Effects: Science and Policy

Cell towers and 5G emit RF radiation

Cell towers, including 4G and 5G cellular antennas, emit radio frequency (RF) radiation, a type of non-ionizing electromagnetic radiation. Although this type of radiation is non-ionizing, this does not ensure safety. Many scientists recommend caution because [studies](#) have reported a range of harmful health impacts after prolonged exposure.

Chronic exposure has been associated with increased oxidative stress and DNA damage and cancer risk

– [The Lancet, Bandara and Carpenter 2018](#)

Cell tower radiation is an environmental pollutant

Cell tower emissions are now the [dominant source](#) of RF exposure in most outdoor areas, making RF radiation a rapidly increasing form of environmental pollution.

When antennas are installed near schools, the environmental levels of RF increase on the property around the tower. A study found that kindergarten children attending schools near cell towers had over three times higher total RF exposure than those attending a school without a close proximity cell tower, as measured by personal RF radiation measurement devices worn throughout the day.

While many countries conduct regular audits of cell tower and RF radiation levels—especially around schools—the U.S. lacks any federal law or compliance policy requiring routine testing or monitoring of cell tower sites to ensure public safety.

Scientific Research on Cell Towers and Health

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. The organization of children's doctors, along with many others, advises parents to reduce children's exposure.

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

-The American Academy of Pediatrics on Cell Towers

A growing body of peer-reviewed research documents a range of biological and health effects linking RF to increased cancer risk, cellular stress, genetic damage, hormonal changes, and neurological effects. These studies span epidemiological investigations, clinical observations, laboratory research, and case reports.

Dr. Henry Lai has compiled studies on non-ionizing electromagnetic fields (EMF), including RF radiation since 1990 and found the majority reported significant effects. As of May 2025, his review—posted on Dr. Joel Moskowitz' SaferEMR site – found:

- 89% of 407 oxidative stress studies since 1997 show harm.
- 72% of 511 genetic studies since 1990 found effects.
- 78% of 480 neurological studies since 2007 found harm.
- 85% of 380 reproductive/developmental studies since 1990 showed impact.
- 242 studies reported harm from low-intensity RF (SAR < 0.40 W/kg).

Scientific studies link cell towers to health harm

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.

-J.M. Pearce, Environmental Research 2020

A 2022 review examined existing research on people living near mobile phone base stations and found the majority of studies reported impacts, primarily radiofrequency sickness, cancer, and altered biochemical markers.

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.

In 2011, RF radiation was classified as a Group 2B "possible carcinogen" by the World Health Organization's International Agency for Research on Cancer (WHO/IARC). Since then, peer-reviewed studies on both people and animals have reported increased cancer risks. The 2018 large scale animal study published in

Environmental Research by Falcioni et al. found elevated cancer rates in rats exposed to RF radiation at levels permitted for cell tower emissions.

Scientists involved in the original IARC evaluation have since stated that, based on current evidence, RF radiation would likely be reclassified as a probable or even proven human carcinogen if reassessed today.

Published Research on Cell Towers and Health

Here are examples of studies focused on cell tower and wireless infrastructure that indicate safety is not assured:

- **India:** Salio et al. (2025) surveyed residents living within 300 meters of mobile phone base stations and found they reported more health symptoms spanning four health categories: mood-energy, cognitive-sensory, inflammatory, and anatomical issues compared to those living more than 400 meters away.
- **Germany:** Gulati et al. (2024) found significantly higher rates of chromosomal aberrations—key indicators of genetic damage—in residents living near towers, supporting a biologically plausible link to increased cancer risk.
- **Sweden:** Hardell and Nilsson (2024) summarized several case reports on microwave syndrome symptoms in people exposed to 5G antennas.
- **Brazil:** Rodrigues (2021) showed higher cancer mortality, especially lung and breast, near towers.
- **Spain:** López (2021) linked higher RF to increased headaches, dizziness and decreased sleep.
- **Italy:** Brizzi and Marinelli (2019) followed a community exposed to radar from 1970 until 1998 in a community and found increased cancer and heart disease in the exposed residents.
- **Saudi Arabia:** Meo (2018) linked exposure to delayed motor skills and attention deficits in teens.
- **India:** Zothansiam (2017) found blood changes predictive of cancer.
- **India:** Pachua and Pachua (2016) found a strong correlation between higher tower radiation levels and health complaints with significant symptoms appearing above 2.145 mW/m².
- **India:** Singh et al (2016) found significantly more reported health issues – including sleep disturbances, headaches and concentration difficulties as well as measured reduced salivary secretion – in people living closer to antennas.
- **Saudi Arabia:** Meo (2015) reported an association between higher exposures and higher risk of type 2 diabetes.
- **India:** Gandhi et al. (2014) A case-control study found significantly elevated DNA damage in residents living in 300 m of a mobile phone base station, especially among women, with power density and proximity identified as key predictors.

- **Spain:** Gomez-Perretta et al (2013) re-analysed the data from Navarro et al (2003) and found symptoms like fatigue, irritability, sleep disturbances, and poor concentration were linked to cellular base station exposure, independent of demographics, other EMF sources, or radiation-related anxiety.
- **Taiwan:** Li et al. (2012) found children living in areas with higher-than-median RF exposure had a significantly increased risk for all neoplasms (abnormal growths), benign and malignant.
- **Egypt:** Eskander et al. (2012) found long-term cell tower exposure over 6 years was linked to impacts to the endocrine system, including decreased ACTH, cortisol, and thyroid hormones, as well as significant drops in prolactin in females and testosterone in males.
- **Brazil:** Dode (2011) Cancer mortality was elevated within 500 meters of towers.
- **Australia:** Khurana (2011) found 8 of 10 reviewed studies showed adverse symptoms within 500m of cell towers and wireless infrastructure.
- **Germany:** Buchner (2011) found significant hormonal disruptions post-installation.
- **Ukraine:** Yakymenko (2011) reviewed dozens of studies and reported increased cancer.
- **USA:** Levitt & Lai (2010) reviewed 100 studies on cell infrastructure and found about 80% showed biological effects.
- **Germany:** Eger and Neppe (2009) found a statistically significant increase in cancer incidence among residents within a 400-meter radius of a mobile phone base station five years after it became operational.
- **Egypt:** Abdel-Rassoul et al. (2007) found significantly higher rates of neuropsychiatric symptoms (e.g., headaches, memory changes, sleep disturbances) and reduced attention and memory performance linked to cell phone base station antennas.
- **Israel:** Wolf and Wolf (2004) reported increased incidence of cancer associated with living in proximity to a cell phone transmitter station.
- **Poland:** Bortkiewicz et al., (2004) described increased reports of sleep disturbances, headaches, depression, and circulatory issues among people living near cell towers, with symptoms correlating to proximity and exposure level.
- **Germany:** Eger et al. (2004) found people living within 400 meters of a cellular transmitter had a significantly higher rate of newly diagnosed cancers and developed cancer on average 8 years earlier than those living farther away.
- **France:** Santini et al. (2003) surveyed 530 residents and found significantly higher rates of symptoms like nausea, sleep disturbances, and headaches within 300 m of cell towers.
- **Spain:** Navarro et al (2003) found a significant correlation between reported severity of "microwave sickness" health symptoms and the measured power density of RF radiation from a nearby cellular base station.
- **Italy:** Michelozzi et al., (1998) found significantly increased leukemia mortality, particularly in men, among residents living within 3.5 km of a high-power radio transmitter in Rome, with risk decreasing with distance.
- **Latvia:** Kolodynski and Kolodynska (1996) examined 609 schoolchildren and found that children residing in areas directly exposed to radar emissions exhibited statistically significant impairments in motor function, memory, attention, and reaction times.

Study Highlight: Cell Tower Radiation Study Finds Cell Tower Exposures Can Be Higher Than Cell Phone Use For Children

While industry representatives often claim that radiation from cell towers is too “low” to cause adverse health effects, research shows that the cumulative exposure from nearby cell towers can exceed the RF radiation exposure children receive from typical cell phone use. A [2023 study](#) published in *Environmental Research* by Lee and Choi found that continuous 24-hour downlink signals from cell towers produced more than a ten-fold higher cumulative daily energy absorption in the brain compared to a child's exposure from mobile phone use.

Children's Brains Absorb More Cell Tower Radiation Than Adults

A 2023 study by Lee and Choi in *Environmental Research* found that continuous 24-hour radiation from cell towers (downlink signals DL) can lead to over ten times greater daily RFR absorption in a child's brain than a typical 10-minute mobile phone call (uplink exposure UL).

Using real-world 3G, 4G, and 5G measurements from Seoul and computer simulations of exposure rates into a six-year-old and an adult, researchers showed that while cell phone use creates short exposures of higher intensity, the constant low-level exposure from nearby cell towers can contribute far more to the child's total daily RFR dose over 24 hours.

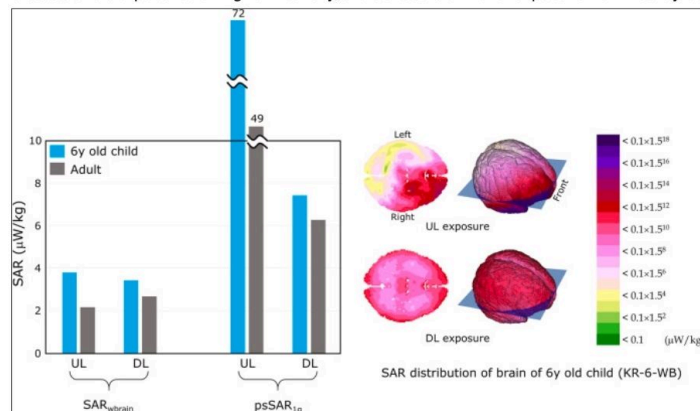


Figure 10 compares the specific absorption rate (SAR) in the brains of a child and an adult exposed to cell tower radiation (downlink DL) and cell phone radiation (uplink UL) and from real mobile networks in Seoul (2021), showing that the child's smaller head and thinner skull result in higher localized absorption of RF energy, indicating that younger brains take in more radiation under the same exposure conditions.

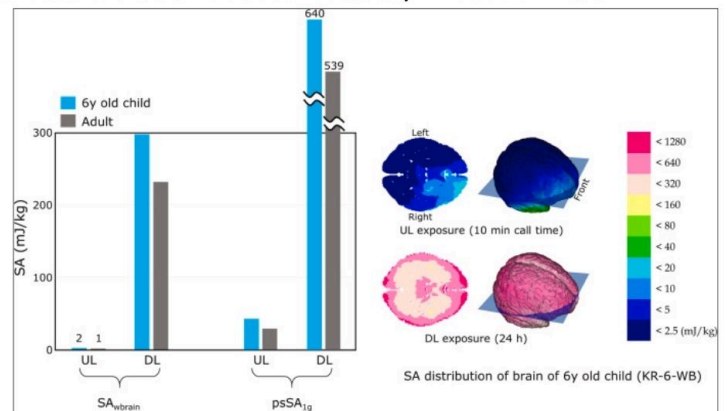


Figure 11 compares the daily whole-body specific absorption (SA) in a child and an adult exposed to real mobile network signals in Seoul (2021), showing more than a tenfold difference in total exposure between uplink (UL) cell phone radiation (DL) cell tower radiation.

Lee, AK. & Choi, HD. (2023)

Dosimetric assessment in the brain for downlink EMF exposure in Korean mobile communication networks.

Environmental Research, Volume 234, 116542

Wireless & EMF Program
Environmental Health Sciences

Expert Recommendations

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

New Hampshire State Commission on 5G Health and Environment:

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.

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."

International Association of Firefighters:

The Association has a formal position statement against cell towers and cellular antennas on fire stations to protect the health of firefighters.

The IAFF oppose the use of fire stations as base stations for towers and/or antennas for the conduction of cell phone transmissions until a study with the highest scientific merit and integrity on health effects of exposure to low-intensity RF/MW radiation is conducted and it is proven that such sitings are not hazardous to the health of our members.

- International Association of Firefighters Position Statement Cell Tower Health Effects

California Firefighter Unions:

Firefighter unions in California have consistently and successfully advocated for the exclusion of fire stations from expedited 5G cell tower deployment. In 2015, their efforts led to an exemption in AB57 (2015), which states that wireless facility siting rules do not apply to projects proposed on fire department property. They also secured an exemption in SB649 (2017), a bill aimed at streamlining small cell deployment, which then

explicitly prohibited small cell installations on fire department facilities. Firefighters also testified in person before the Los Angeles County Board of Supervisors, sent letters, created TV and radio advertisements, and websites about the health risks. News coverage documented how construction was halted due to the issues they raised regarding radiation and health.

Video

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 potential health risks from long-term, low-level (non-thermal) exposure.

The exposure guidelines did not consider information that addresses nonthermal, prolonged exposures, i.e., from research showing effects with implications for

possible adversity in situations involving chronic/prolonged, low-level (nonthermal) exposures.

–[Letter from Norbert Hankin, EPA Office of Radiation.](#)

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

Includes a [chapter](#) on cell tower radiation, noting growing public concern about electromagnetic fields near densely populated areas. It warns that the widespread presence of towers should not be mistaken as evidence of safety and stresses that health risks remain uncertain.

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.

A Human Rights Issue

A study by human rights experts (Roda and Perry 2024), "[Mobile phone infrastructure regulation in Europe: Scientific challenges and human rights protection,](#)" published in Environmental Science and Policy, highlights growing scientific evidence that safety around mobile phone infrastructure is not assured. The authors frame the issue as a human rights concern, emphasizing the need to protect vulnerable populations from environmental pollution. They conclude that, given the incomplete state of scientific knowledge, a precautionary approach is more aligned with states' obligations under international human rights law.

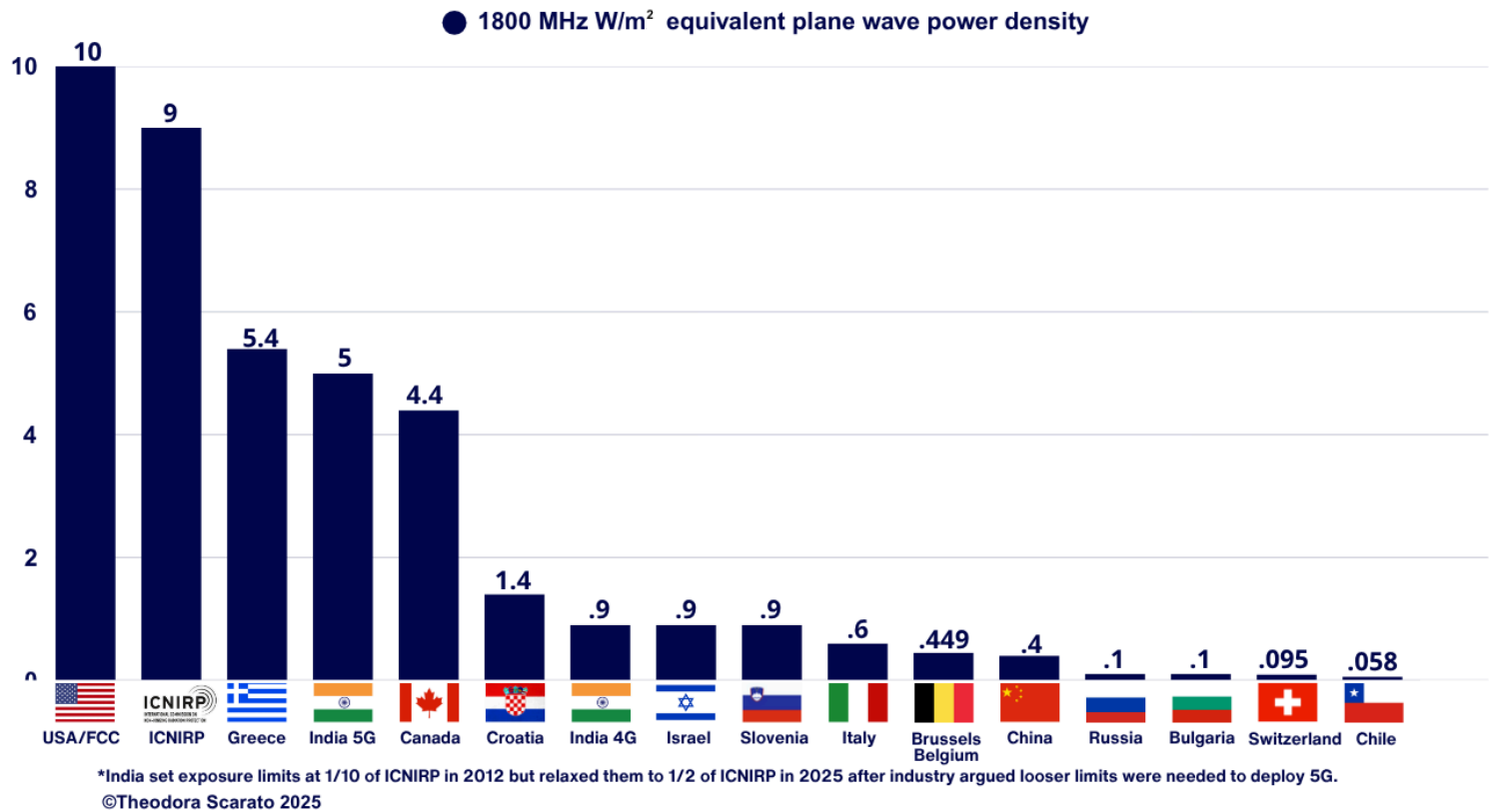
International Cell Tower Policies and Limits

The United States cell tower radiation limits are unchanged and without proper scientific review since 1996. The country allows higher levels of cell tower radiation in the environment than several other countries. Many nations—including Italy, Switzerland, China, and Russia—have adopted far stricter regulations, with limits at 10 to 100 times lower than the U.S., recognizing the need for prevention and the potential for harmful effects, especially after long-term exposure. As a result, cell towers commonly permitted in the U.S. would violate

regulations in these countries. These countries often require greater setbacks from homes, schools, and playgrounds to better protect public health, particularly for children.

*

Country Comparison: Power Density Limits for Radio Frequency Radiation Government Regulations Applicable to Schools and Homes



References: Worldwide Limits for Cell Tower Radiation

Turkey: Cell antennas must be distanced from schools and playgrounds and not placed on the same floors as preschools or primary schools in multi-story buildings. RF levels are continuously monitored near schools and hospitals.

Greece: Towers are prohibited on school grounds, with stricter RF limits within 300 meters of schools, hospitals, and elderly care homes.

France: RF levels must be minimized within 100 meters of schools, daycare centers, and healthcare facilities.

Bangladesh: Cell towers are banned on residential buildings, schools, colleges, playgrounds, high-density areas, and heritage sites.

Israel: Requires at least a 100-meter setback between towers and schools or homes.

Chile: Prohibits cell antennas in "sensitive areas" like kindergartens, hospitals, and nursing homes.

Switzerland, Australia: New towers are not allowed on school property, must be 200 meters away, and

emissions are capped at 1% of federal limits.

New Zealand: Bans towers on school property and enforces a 50-meter setback.

Canada: Toronto recommends exposures be 100 times lower than federal limits under a "Prudent Avoidance Policy." The Vancouver School Board passed a resolution prohibiting the construction of towers within 1,000 feet (approx. 305 meters) of any school property.

Russia: Cell tower antennas and base stations are no longer allowed to be built near schools, and a national plan is underway to relocate existing installations away from educational institutions.

U.S. Policies Restricting Cell Towers Near Schools

The U.S. lacks federal regulations governing the placement of cell towers near homes, hospitals, and schools. However, some state and local communities have taken steps to address the issue.

School districts that have banned new towers:

Los Angeles Unified (CA): Passed three resolutions banning towers, including one that set a "cautionary level" for radiofrequency radiation at 10,000 times lower than US federal limits for public exposure.

Palo Alto Unified (CA): Passed a 1,500-foot setback.

Temecula Valley Unified (CA): Passed resolution and policy prohibiting new towers and lease renewals as well as ensuring regular RF radiation measurements of existing towers.

Portland Public Schools (OR): stopped considering new leases for cell towers.

Montgomery County (MD): Stopped towers at elementary schools.

West Linn-Wilsonville School District (OR): Prohibits towers on school property and opposes proposals for towers near schools. **Prince George's County Public Schools (MD)**: Did not renew cell tower leasing agreement. The Greenbelt City Council also supported the opposition to towers at schools

Loudoun County School Board (VA.): Prohibited new towers for 5 years.

City, town and county ordinances with cell tower school setbacks

Williamson County, TN: 1,500 ft schools

Copake, NY: 1,500 ft homes/schools

Sallisaw, OK: 1,500 ft homes

W` Creek, CA: 1,500 ft schools

Calaveras, CA: 1,000 ft homes/schools

Scarsdale, NY: 500 ft homes/schools

San Diego County, CA: 300 ft schools

Bedford, NH: 750 ft residential

Bar Harbor, ME: 1,500 ft schools

Shelburne, MA: 3,000 ft schools, 1,500 ft homes

“In promoting the health and safety of students and staff and in compliance with its duty to provide an environment free from life hazards, new wireless telecommunication transmitter installments are prohibited on all school premises...the District shall not extend or renew such leases.”

-Temecula Valley Unified Policy

Schools with nearby cell towers are shielding classrooms

The Desert Sage Public High School in Tucson, AZ installed shielding to protect students in classrooms from a nearby cell tower and has removed indoor boosters, restricted cell phone use, and taken other measures to reduce students' and staff's exposure to wireless RF radiation citing health concerns such as cancer risks, cognitive effects, and behavioral issues.

Research Recommending Setbacks to Distance Towers from Schools

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, and schools.
- **Dode et al. (2011)** in Science of the Total Environment found increased tumor-related deaths within 500 meters of base stations in Brazil, and stated "More restrictive limits must be adopted urgently."
- **Levitt & Lai (2010)** in Environmental Reviews stated " As a general guideline, cell basestations should not be located less than 1,500 from the population, and at a height of about 150 ft."
- **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 base stations.

US Regulations Unchanged Since 1996

Long-term exposure risks are ignored by U.S. standards

Current FCC radiofrequency (RF) exposure limits, unchanged since 1996, are based solely on protecting against short-term overheating effects and simply were not designed to protect against effects of long-term, low-level full body exposure from cell towers. These outdated guidelines were determined based on studies of ju ats and 5 monkeys conducted half a century ago. They were heated with microwaves for under an hour

and the level of harm was determined by the increase in temperature in their bodies measured when they stopped pressing a lever for food.

Even as far back as 2000, the [Ecolog Institute Report](#) *commissioned by T-Mobile* recommended an exposure limit 1,000 times lower than the FCC's current power density limit.

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](#)

In 2021, the U.S. Court of Appeals ruled the FCC's refusal to update its 1996 wireless radiation limits "arbitrary and capricious," citing failure to address record evidence on long-term exposure (such as that from cell towers), children's vulnerability, and non-cancer effects like memory and reproductive harm—yet the FCC has still not responded to the Court's mandate.

No safety testing for cell tower radiation

No federal agency is actively researching or monitoring the health effects of cell tower radiation. There is no health surveillance system as we have for pharmaceuticals to report health impacts.

Agencies typically responsible for public health—like the EPA, OSHA, and NIOSH—have no research activities in this area, leaving significant regulatory gaps in protecting the public. While the FDA is often put forward as assuring cell tower safety, the agency has never reviewed cell tower or 5g radiation health effects. The FDA has confirmed this regulatory void, stating, "We don't have jurisdiction over cellphone towers since those are environmental emitters," highlighting a major regulatory gap that leaves the public unprotected from cell tower radiation.

Further, the United States also operates largely on an honor system when it comes to cell tower radiation compliance. There is no requirement for real-time or post-installation compliance testing of wireless infrastructure. A [Wall Street Journal investigation](#) found that one in ten cell sites emit levels of RF radiation that exceeded even the lenient FCC radiation limits. Worker injuries related to lax enforcement of antennas on buildings have prompted the International Brotherhood of Electrical Workers to [write to the FCC](#) that "ensuring

compliance with existing FCC RF human exposure limits by the FCC licensee is not effective and cannot/is not being enforced.... When there is a hazard, the hazard creator has a duty to warn others against the hazard."

Legal, Liability and Insurance

Insurance industry flags cell tower radiation 5G as high risk

The Swiss Re Institute, a leading authority in reinsurance, has categorized 5G as an **"off-the-leash" risk**—a designation for unpredictable threats with potentially widespread impact.

"Existing concerns regarding potential negative health effects from electromagnetic fields (EMF) are only likely to increase. An uptick in liability claims could be a potential long-term consequence."

"As the biological effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency."

–Swiss Re Institute 2019

Insurance authorities have stated the situation mirrors the early stages of the asbestos crisis. Though the science was once uncertain, the health consequences eventually became undeniable—and costly. Experts warn that EMF exposure could follow a similar trajectory.

“Some research has shown biological effects from lower-level “non thermal” exposure and people exposed at lower levels have reported headaches, dizziness, nausea, mood disorders, mental slowing and memory loss.”

–***Business Insurance White Paper*** “[The Next Asbestos: Five Emerging Risks That Could Shift the Liability Landscape](#)”

“The danger with EMF is that, like asbestos, the exposure insurers face is underestimated and could grow exponentially and be with us for many years.”

–[2010 Lloyd’s of London “Electromagnetic fields from mobile phones: recent developments.” Lloyd’s Emerging Risks Team Report](#)”

A [2017 Vodafone Investors Annual Report](#) ranks the EMF health risk issue as a

“Principal Risk” having a “high” impact.

Exclusion of cell tower radiation damages from insurance coverage

Due to the financial risk, most insurance policies exclude coverage for damages related to non-ionizing EMF, including RF radiation emitted from cell towers. In turn, U.S. wireless carriers have been unsuccessful in securing insurance coverage themselves for potential liabilities for well over a decade.

Genesis Insurance, a major provider of liability coverage for educational institutions, excludes coverage for harm caused by electromagnetic field (EMF) radiation, including RF radiation from cell towers and wireless devices. Its policy language for K–12 schools, universities, school boards, and public entities explicitly states their insurance does not apply for:

“Bodily injury, personal injury, advertising injury, or property damage arising directly or indirectly out of, resulting from, caused or contributed to by electromagnetic

radiation, provided that such loss, cost or expense results from or is contributed to by the hazardous properties of electromagnetic radiation. This includes any costs for the actual or threatened abatement, mitigation, or removal.”

-Genesis Insurance liability coverage for educational Institutions

“The potential connection between radio frequency emissions and certain negative health effects, including some forms of cancer, has been the subject of substantial study by the scientific community in recent years. We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us. .. If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters.”

- Crown Castle Annual Report 2024

Even the wireless industry itself classifies RF radiation as a form of “**pollution**”. For instance, Verizon’s Total Mobile Protection Plan defines pollutants to include:

“...any solid, liquid, gaseous, or thermal irritant or contaminant including... artificially produced electric fields, magnetic field, electromagnetic field... and all artificially produced ionizing or nonionizing radiation...”

Similar language appears in cell phone consumer protection plans from AT&T, Sprint, Verizon and T-Mobile.

Inv...ors are warned—but not the families

While telecom companies warn investors of potential financial fallout, they do not inform the public or those living near towers about the health risks. These disclosures are found in SEC filings like annual reports.

Verizon's Annual Report 2025:

“Our wireless business is also subject to lawsuits relating to alleged adverse health effects of wireless phones and radio frequency transmitters. Any of these allegations or changes in government agencies’ assessment of the risks associated with using wireless devices could result in significant legal and regulatory liability and other remedies, and could have a material adverse effect on our business, financial condition and operating results.”

“The FCC has from time to time gathered data regarding wireless device emissions, and its assessment of the risks associated with using wireless devices may evolve based on its findings. Any of these allegations or changes in risk assessments could result in customers purchasing fewer devices and wireless services, could result in significant legal and regulatory liability, and could have a material adverse effect on our business, reputation, financial condition, cash flows and operating results.”

[T-Mobile Annual Report 2023](#)

We also face current and potential litigation relating to alleged adverse health effects on customers or employees who use such technologies including, for example, wireless devices. We may incur significant expenses defending such suits or government charges and may be required to pay amounts or otherwise change

our operations in ways that could materially adversely affect our operations or financial results.

[AT&T Inc. Annual Report 2024](#)

In short, while insurers and telecom companies recognize the long-term risks of RF radiation and take steps to protect themselves financially, the public—especially those near towers and schools—is left without similar warnings or protections.

Cell Towers Challenged, Removed, Relocated, or Rejected

Across the country and around the world, communities are taking action to push back against cell towers placed too close to where people live, work, and learn—here are just a few examples of communities calling for more responsible placement.

“The Health Board has been presented with credible, independent, and peer-reviewed scientific and medical studies and reports that provide convincing evidence that pulsed and modulated RFR is bio-active and affects all living things over the long term.”

[-Pittsfield Massachusetts Board of Health Cell Tower Emergency Order](#)

Pittsfield, MA: Seventeen residents living near a cell tower reported severe symptoms when the tower began transmitting including headaches, sleep issues, and neurological issues. The Board of Health investigated and issued an Emergency order which was later rescinded amidst a complex legal case that is still ongoing.

Toronto, Canada: In 2024, the Toronto District School Board launched a third-party review after 18 teachers at a North York high school refused to work due to health concerns over radiation from the nearby cell phone tower, prompting experts to write the Ontario Minister of Education advocating for stronger school policies to mitigate exposure.

Wyandotte, MI: Parents' protests over a cell tower at Washington Elementary led Michigan State Rep. James DeSana to introduce a bill to distance towers from schools statewide and prompted U.S. Representative Shri Thanedar (Michigan's 13th congressional district) to request that the FCC update its safety limits and ban cell towers on school grounds.

Flower Hill, NY: A federal judge upheld the denial of 18 Verizon-linked small cell antennas, ruling the village acted within its rights and that under the Telecommunications Act of 1996, local governments must only ensure basic wireless voice service. Enhanced data speeds aren't legally required.

Cell towers have been removed, relocated, or rejected

Ripon, CA: After a tower was erected near an elementary school, four students developed cancer and three teachers were diagnosed with breast cancer. The tower was later removed.

Haines, AK: The School Board voted unanimously to send a letter to AT&T opposing the construction of a proposed 125-foot 5G cell tower citing concerns over the tower's height, potential health impacts, and lights.

Pasco County, FL: Parent opposition to a planned Vertex cell tower at Starkey Ranch K-8 School led officials to relocate it to a nearby park maintenance yard, moving it over 2,300 feet from the school.

Tarrytown, NY: A cell tower near a public housing complex and playground was removed following strong community protest and media coverage.

Dewey Beach, DE: Residents formed the Save Dewey Beach Foundation and filed a lawsuit, prompting Verizon to relocate planned beachfront towers.

Annapolis, MD: A proposal to install a 75-foot telecom tower on the St. John's College campus was rejected.

Marshall, VA: The School Board committee turned down a proposed tower at Claude Thompson Elementary School.

Long Beach, CA: A couple halted a 5G tower in front of their home after a protracted legal fight. In a critical ruling, the hearing examiner noted "reliable, credible evidence that the FCC regulations as to what are safe RF emission standards are outmoded and inadequate to safeguard the public..."

Tupelo, MS: The City Council rejected a proposed Verizon cell tower in west Tupelo, and the order noted the city's stance that FCC limits should be updated, stating, "the 1996 RF wireless radiation rules and safety limits deserve a reassessment."

Bears Ears, UT: A proposal to build a telecom tower taller than Utah's tallest building within Bears Ears National Monument was withdrawn following strong public outcry, environmental concerns, and criticism over lack of tribal consultation.

Montgomery County, MD: A cell tower at Woodward High School was removed after the school board, amidst heavy tower opposition, declined to authorize its reconstruction during the school renovation project.

Environmental Health Sciences

Environmental Health Sciences is a nonprofit, nonpartisan organization dedicated to driving science into public discussion and policy on environmental health issues, including climate change.

Environmental Health Sciences is a nonpartisan, 501(c)(3) nonprofit corporation based in Bozeman, Montana.

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