

# Electromagnetic Fields (EMF) Killing Fields

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[Also see [Microwaving Our Planet](#) - Arthur Firstenberg / Cellular Phone Taskforce 1997]

<http://www.mindfully.org/Technology/2004/Electromagnetic-Fields-EMF1jun04.htm>

Today I am homeless. My money does not provide me shelter. My good health does not ensure my survival. My friends are unable to help me. I am being killed, but the law offers me no protection.

For eight years I have provided advocacy and support in North America and worldwide for people in similar circumstances. Some have epilepsy, or heart disease, or diabetes, or cancer. Some have allergies or asthma. But most, like me, are in good health. The assault we are all suffering is a radical increase in electromagnetic pollution, or electrosmog, that is engulfing the earth.

In 1982 I was in my final year of medical school, a promising career ahead of me. For several months I had been having headaches and difficulty concentrating and remembering things. Then, while on a surgery rotation, I suffered crippling pains in my hips, making it difficult to assist in operations. My heart rate slowed to less than 50. One day I collapsed and was unable to get up. My chest hurt, and I could not get enough breath. I was sure I was having a heart attack. During the next two weeks I lost 15 pounds. And I was a slim man to begin with. It wasn't a heart attack, but it was still six months before I could walk up a flight of stairs without becoming short of breath. It was three years before I was strong enough to ski again. It was seven years before I met someone who validated my own experience that being near certain electrical appliances, such as television sets and computers, made me ill, and that staying away from them kept me healthy. However, having discovered how to remain healthy, I gradually found that I was being effectively disabled by my society.

**An invisible electrosmog engulfs us, destroying the health of many who do not even know why they have fallen ill. Why is no one listening to the mass of evidence telling us we are frying our brains?**



In February this year Richard Box, artist-in-residence at the University of Bristol's physics department, installed hundreds of fluorescent light tubes in a field underneath power lines. The tubes came on at dusk, powered solely by the EM field generated by the cables above.

Having stumbled upon an obviously well-kept secret, I researched the world literature on bioelectromagnetics, (or the biological effects of electromagnetism), and made myself an expert. I learned that electro-cautery machines, used in every modern surgical operation to cut through tissue and to stop bleeding, expose surgeons to much higher levels of radio frequency radiation than is permitted for workers in any industry. I learned that there was a disease thoroughly described in the Russian and Eastern European medical literature called radiowave sickness, the existence of which was usually denied by western authorities. This description made me remember my 'unknown illness', the one that had derailed my medical career. Bradycardia, or a slow heart rate, was said, in these texts, to be a grave sign.

Because there are virtually no workplaces without computers any more, I have not held a job since 1990. I had resigned myself to living on Social Security Disability, and learned, together with other members of a support group I had found, how best to live with my disability. This mostly meant learning to avoid exposure to electromagnetic fields. But in July 1996, to my dismay, I learned that an innovation was coming to my city, which threatened to make it impossible to avoid exposure any more.

At that time, cell phones were still a luxury item that only worked in some locations. People were not accustomed to staying connected whenever they left their home, and even at home most still had a cord, not an antenna, attached to their telephone. Most were not accustomed to holding devices that emit microwave radiation next to their brain. In 1996, the telecommunications industry began a marketing campaign designed to change all that. For Christmas that year, all over the country, digital cell phones were going to be on a lot of shopping lists. And to make them more practical, tens of thousands of antennae were going to be erected on towers, buildings, church steeples and lampposts all over the country before Christmas, and hundreds of thousands more during the next few years.

In response to this emergency, a few friends and I created the Cellular Phone Task Force, and contacted all the public officials we could think of, and the press, to warn them of the danger. But on November 14 1996, Omnipoint, New York City's first digital cellular provider, did open for business, broadcasting from thousands of antennae newly erected on the rooftops of apartment buildings. According to the health authorities, an early flu hit New York City - but not Boston, and not Philadelphia - on about 15 November. The flu was severe and ran a prolonged course, often dragging on for months instead of the usual two weeks.

At Christmas time, the Cellular Phone Task Force placed a small classified ad in a free weekly newspaper. It read: 'If you have been ill since 11/15/96 with any of the following: eye pain, insomnia, dry lips, swollen throat, pressure or pain in the chest, headaches, dizziness, nausea, shakiness, other aches and pains, or flu that won't go away, you may be a victim of a new microwave system blanketing the city. We need to hear from you.' And we did hear from them. Hundreds called, men, women, whites, blacks, Asians, Latinos, doctors, lawyers, teachers, stockbrokers, airline stewards, computer operators. Most had woken up suddenly in mid-November, thinking they were having a stroke or a heart attack or a nervous breakdown, and were relieved to know they were not alone and not crazy.

Later, I analysed weekly mortality statistics, which the Centres for Disease Control publish for 122 US cities. Each of dozens of cities recorded a 10-25 per cent increase in mortality, lasting two to three months, beginning on the day in 1996 or 1997 on which that city's first digital cell phone network began commercial service. I published both the raw data and the complete analysis, with graphs. This appeared in *No Place To Hide*, an investigative journal published by my organisation and I am presently working with scientists in Europe to expand this study to other countries.

I learned that in February 1996, Congress had passed a law prohibiting local governments from denying permits for cell phone antennae because of environmental concerns - so long as they comply with Federal Communications Commission (FCC) rules. I also learned that the FCC had just issued regulations setting public exposure limits for microwave radiation at levels at least ten thousand times higher than levels which, according to the Environmental Protection Agency, were causing reports of illness from all over the world. Levels that are at least ten thousand times higher than the levels that had forced me to leave behind my home, my family, and my friends, and to run for my life, never to be able to return home again.

The Cellular Phone Task Force, along with over 50 other grass roots organisations and individuals around the US, became involved in a legal challenge of the FCC's absurd standards and its pre-emption of local control. This was taken all the way to the US Supreme Court. Dozens of cities, towns and public officials, including several US senators and representatives, submitted briefs urging the High Court to hear our case. But in January 2001, the Supreme Court, without comment, declined.

You will hear statements by supposed experts - always the same few, in the pay of the telecommunications industry - to the effect that cell phones/cell towers/microwave radiation have been proven safe in countless studies. It is an easy lie, one that the news media have been eager to propagate. Such studies don't exist. Quite the contrary: it has been shown that, just as for X-rays, there is no safe level of exposure to microwave radiation, and it is so easy to demonstrate harmful effects that it takes some skill to design experiments that don't show them. It is harder to show effects today than 10 years ago because now the entire planet is exposed, making it impossible to do experiments with 'unexposed' controls. But most experiments still show effects anyway - effects on heart rhythms, on brain waves, on the blood-brain barrier, on sleep, on the eyes, on the gonads, on the skin, on hearing, on calcium, on melatonin, on glucose, on metabolism, on human well-being. If you look, you will find. Zorach Glaser reviewed over 5,000 such studies for the United States Navy during the 1970s alone. After 1982, the United States ceased funding Glaser's cataloguing work. But the flood of alarming research occurring all over the world continued.

From the volume of literature I have seen, certain results stand out in my mind.

In the 1960s, Allan Frey was the first to discover that people and animals can hear low-energy pulsed microwaves. He also did some of the earliest work showing how heart rhythms are disturbed by microwaves, and how the blood-brain barrier is compromised, letting large molecules leak across, exposing the brain to potential damage.

Ophthalmologist Milton Zaret was the first to describe cataracts caused by low-energy

microwaves. Canadians Tanner, Romero-Sierra and Bigu Del Blanco worked with parakeets, chickens, pigeons and seagulls. Birds avoided microwave fields if they could, and collapsed within seconds if they couldn't. Defeathered birds showed no such distress, and these researchers then showed that feathers act as antennae conveying microwave energy to the birds. Thirty years later, Alfonso Balmori Martínez has carefully documented the decline and disappearance of white storks, house sparrows, and free-tailed bats from the vicinity of cellular phone base stations.

The idea that there is an exposure threshold, below which microwave radiation can be considered safe, has been disproven many times over. In Moscow, Igor Belyaev has found resonance effects on bacterial DNA that occur at exposure levels 10,000,000,000,000,000 times less than the average exposure from a cell phone. W Grundler, in Germany, has found effects on the growth of yeast cells, also at near-zero levels of exposure.

In the early 1990s, the government of Switzerland commissioned a study in response to people's complaints of insomnia near the shortwave transmitter at Schwarzenburg. Residents kept sleep diaries and did not know when the transmitter was on or off. The investigators found that the transmitter was disturbing sleep up to several miles away, and because of this finding that particular radio station was permanently shut down.

An early warning radar station was due to be decommissioned at Skrunda, Latvia after the end of the Cold War. Before it was shut down, a coordinated effort was made to determine whether the station had had any environmental effects. Teams of researchers found such effects wherever they looked, even at extremely low levels of exposure: smaller growth rings in trees, premature ageing in pine needles, chromosome damage in cows, decreased memory, attention, learning, and pulmonary function in school children, increased white blood cells in adults, and an altered sex ratio (more girls) in children born during the years of the radar's operation.

In Germany, Wolfgang Volkrodt linked forest die-back to microwave radiation rather than acid rain. Wolfgang Löscher and Günther Käs documented illness in dairy cows caused by cell towers. This included decreased milk production, infertility, abortions, birth deformities, behavioural problems and early death. Autopsies revealed that the cows died of acute circulatory collapse and bleeding from several organs.

In France, Roger Santini has found that the closer people live to a cell tower, the more likely they are to experience dizziness, nausea, memory loss and other neurological symptoms. Claudio Gómez-Perretta has obtained similar results in Spain. The Dutch government sponsored double blind experiments in a laboratory. People exposed to a cell tower signal experienced dizziness, nervousness, chest pain, shortness of breath, numbness and tingling, weakness, and difficulty concentrating.

The late Neil Cherry found that childhood cancer rates in San Francisco were a function of proximity to the antenna-laden Sutro Tower. Olle Johansson and Örjan Hallberg showed that the rise and fall of asthma and certain cancers during the 20th century closely paralleled changes in public exposure to radio waves in every country they looked

at. They showed that radio waves are as big a factor in causing lung cancer as cigarette smoking.

Leif Salford's recent work on the blood-brain barrier has verified the earlier work of Allan Frey and others, but with additional, ominous findings. First, sometimes, decreasing the amount of radiation 1,000 times increased the damage to the brain (demonstrating the 'window' effect). Second, animals exposed to a cell phone once for two hours were found to have areas of brain cell death two months later. Salford has called cell phones 'the world's largest biological experiment ever'. His work provides solid support for those who warn that every cell phone call damages brain cells, and that cell phones, like cigarettes, harm both users and nearby non-users. His findings are particularly alarming in light of surveys – by Santini in France, and by Sandström and Mild in Sweden – which include: headaches, migraines, chronic fatigue, agitation, sleep disorders, tinnitus, nervous and connective tissue pains of unexplained origin, and susceptibility to infection. The appeal calls for a massive reduction in exposure limits; no further expansion of cell phone technology; cell phone- and antenna-free zones; a ban on cell phone use by children; and a ban on cell phones and digital cordless phones in schools, hospitals, nursing homes, public buildings and public transportation.

The California Department of Health Services has concluded that, on the basis of a telephone survey, 120,000 Californians - and by implication one million Americans - have left their jobs because of electromagnetic pollution in the workplace. The people who have left their homes for such a reason are not being counted by anyone.

'Electrical sensitivity' is a popular, but inaccurate, term for suffering caused by this universal pollutant. The problem is much more widespread than is commonly assumed, and growing daily. By the time people realise that electromagnetic fields are directly causing their pain or illness, their lives are often already ruined. They find that reliable information is hard to come by and harder to understand; that there is little support for

**The following are urgently needed:**

- **Sanctuaries.** Radiation-free zones. Places without radio antennae, cell phone service, or television cable (cable is often a significant source of radiation). These sanctuaries are needed right now, to save lives.
- **Legal help.** Environmental and disability rights attorneys who are able to take on this issue.
- **Funding** for land acquisition and legal expenses.
- **Volunteer** help for phone calling, letter writing, grant writing, and so on.

**Keep in mind these two principles:**

- **Distance counts.** The power drops off as the square of the distance. Antennae should be few, and as far as possible from people and environmentally sensitive areas.
- **Digital hurts.** Digital (pulsed) technology is more harmful at lower levels of power than analog. The mandated replacement of all analog TV, radio, and telecommunications transmissions with digital during the next few years is very dangerous.

them, and no solutions offered; and that when they finally learn what they have to avoid, it is nevertheless impossible to do so.

The highest profile person yet to announce that cell phones, cordless phones and computers make her ill is none other than Gro Harlem Brundtland, a medical doctor, master of public health, former Prime Minister of Norway, and until 2003 the Director General of the World Health Organisation. Yet even so public a figure on the world stage has been unable to draw the world's attention to our collective plight, or in any way slow down the growth of telecommunications, or even to put it on the map as an environmental issue.

This must happen. Too many intelligent, professional, useful people are wandering this country's barren deserts, homeless, ostracized, robbed of their civil rights, with no place to land. Too many have committed suicide because they have lost all hope, have suffered too long, have had to pick up roots and flee for their lives once too often.

Within the telecommunications industry, too many equipment testers, installers, and repairpersons with radiowave sickness are afraid to speak out, or do not even know why they are ill.

So many radars, antennae, and communication devices are being deployed for government, military, emergency, commercial, and personal uses in both the developed and developing worlds, and in space, that there is nowhere left to hide. Even radio astronomers are seriously talking about the far side of the moon as the only place left that is quiet enough, in the radio spectrum, to still be able to see the stars.

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