

## Radio-frequency Radiation Poses a Health Risk. Physicians Demand Overdue Precaution.

**More than 1000 physicians signed the "Freiburg Appeal" in 2002. It was translated into many languages. As many as 36,000 people from all over the world support its warning about the dangers of radio-frequency radiation. Today—ten years later—we as physicians and scientists call again on our colleagues and the wider global community, but also on all politicians around the world.**

### I. Evidence:

**Despite all warnings**, more and more **new wireless technologies** are introduced into our daily lives: cell phone networks, TETRA, LTE, cordless phones, Wi-Fi, baby monitors, wireless meters, digital radio and TV, and many others. All of these wireless technologies interfere with the biophysical organization of life with increasing layers and densities of electromagnetic fields.

**Human, animal, and plant life** is controlled by naturally occurring electromagnetic fields and signals. Technical electromagnetic fields with their extremely low to very high frequencies can interfere profoundly with the biological processes of cell communication and cell metabolism. Initially, the self-healing power of living beings will compensate for imbalances through finely tuned control mechanisms. Prolonged electromagnetic stress, however, may lead to a chronic impairment of this biologically meaningful organization of life and result in disease.

The consequences of this fundamental **impairment of self-regulation** have repeatedly been demonstrated in scientific studies: increased permeability of the protective blood-brain barrier, changes in brain wave activity, unbalanced release of neurotransmitters and hormones (especially the increase in stress hormones), immune system impairment, damage to genetic material, and lowered fertility, to name only a few of the best known examples. Oxidative cell stress—a major cause of many diseases—has been shown to be a central effect mechanism of radiation exposure.

**As physicians, we observe** a worrisome rise in mental health problems such as depression, burnout syndrome as well as sleep, anxiety, and panic disorders. This also applies to a multitude of other diseases: stroke (also in children), degenerative neurological disorders (e.g. early onset of dementia syndromes), headaches, autism, learning disorders, concentration problems, and behavioral disorders (ADHD), to name only the most prominent and most frequent symptoms and disorders. Our observations suggest that the increase in radio-frequency radiation exposures counts among the crucial environmental factors that are responsible for a steady increase in allergies, skin problems, pain syndromes, susceptibility to infections, high blood pressure, cardiac arrhythmias, epilepsy, metabolic disorders, and multi-system disorders.

Observable patterns of **temporal and spatial relationships** between the onset of these symptoms and disorders and the start of a radiation exposure (e.g. in the vicinity of a newly installed cell tower or after heavy cell phone use) strengthen the assumption of a causal relationship ever more frequently and clearly. The association between cell phone/cordless phone use and a clear increase in brain tumors has been documented in the scientific literature several times.

**Children and adolescents are most vulnerable.** After leukemia, brain tumors are the second most common cancer in children. In Europe the cancer rate

among older teenagers increases at 1.5 percent per year. In England frontal and **temporal lobe tumors in children** went up by **50 percent** from 1999 to 2009. And they increasingly display addictive behavior in the use of their cell phones and other online devices. Numerous appeals and resolutions, therefore, call for the special protection of children and adolescents, as, for instance, the European Environment Agency did in the fall of 2011.

The number of those who suffer from **electrohyper-sensitivity** is steadily growing. They can develop severe symptoms immediately or even several hours after the exposure to technical electromagnetic fields. As physicians, we welcome that Sweden has recognized electrohyper-sensitivity as a functional impairment. We would also like to point out and emphasize that the European Parliament has called on its member states "to follow the example of Sweden," and that U.S. State Governors have raised public awareness about the serious consequences of electrohypersensitivity. The initiative of the Austrian Medical Association, which has released a guideline for the diagnosis and treatment of EMF-related health problems and illnesses, hopefully will also catch on in other countries.

The observations made by physicians all over the world are consistent and increasingly confirmed by **scientific findings. Adverse effects** of electromagnetic fields and the fundamental impairment of biological control mechanisms well below current exposure limits have been demonstrated, in some instances for decades. The well-known report of the international BioInitiative Working Group (2007) has documented a multitude of health hazards and risks based on the evaluation of more than 1500 scientific studies. Since then numerous recent studies have confirmed the worrisome results and at the same time have shown that current exposure limits, which only consider damage caused by thermal effects, are completely unsuitable. The **World Health Organization** (WHO) classified RF radiation as possibly cancerogenic in May 2011 based on the increased risk of brain tumors among those who heavily use their cell phones for many years. And market-leading manufacturers of cell phones corroborate the association when they justify their patent applications with the argument of cancer risk.

In **numerous appeals and resolutions over the past years**, more and more scientists and physicians have pointed to the health risks associated with radio-frequency radiation exposures. In 2008 the Russian Radiation Protection Committee RNCNIRP gave a warning about the serious and irreparable consequences, and again in 2011, intensified its warning. The European Environment Agency called for urgent precautionary action in 2009. The European Parliament repeated the same call also in 2009.

**In a unanimous resolution in 2011, the European Council demands abandoning wireless communication policies that are seen as unsustainable in their current form.**

## II. Appeal:

**As physicians and scientists, we hereby call on our colleagues and the wider global community to support us with their signature in our fight for the protection of life. However, we also appeal to the politicians to ensure that the people are protected by the following precautionary measures, which also include fundamental human rights:**

- Protect the inviolability of the home by minimizing radio-frequency exposure levels, which penetrate through the walls of one's own home.
- Considerably lower radio-frequency radiation exposures as well as exposure limits to a level that reliably protects humans and nature from adverse biological effects of electromagnetic fields.
- Convert devices/transmitters that transmit continuously (e.g. cordless phones, wireless Internet access (Wi-Fi), and wireless meters) to technologies that only emit radio-frequency radiation on demand when being used.
- Children and adolescents need special protection: Children below the age of 8 should not use cell phones and cordless phones; children and adolescents between the ages 8 and 16 should not use cell phones or only use them in the case of an emergency.
- Attach clearly visible warning labels and safety guidelines for lowering the radiation exposure on cell phones and other wireless devices, including instruction manuals. An important reminder: Try not to carry a cell phone right next to your body when it is turned on.
- Identify and clearly mark protected zones for electrohypersensitive people; establish public areas without wireless access or coverage, especially on public transport, similar to smoke-free areas for nonsmokers.
- Promote the development of communication technologies and electricity use that is more compatible with health. Prefer wired solutions for home use and public facilities. Expand fiber-optic networks as the foundation of a modern, sustainable, and performance-based technology that meets the ever-increasing demand for higher data transmission rates.
- Provide government funding for industry-independent research and education that do not dismiss strong scientific and medical findings of potential risks, but rather work to clarify those risks.

**We also call on you as an individual: Prefer wired communication technologies. Inform yourself and pass this information on to your family, neighbors, friends, and politicians. You can make a difference by sharing information and making precautionary choices so that the protection of human health and the environment is not left to and limited by commercial interests.**

### **Signers** (Please write in capitals):

Last Name, First Name	Title	Occupation	Address: Country Place, Zip Code; Street, House No.	Email /Fax*	Signature
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**Physicians of the Competence Initiative for the Protection of Humanity, the Environment and Democracy e.V.**

More information and how to sign electronically at: [www.freiburger-appell-2012.info](http://www.freiburger-appell-2012.info)

\* If you provide your email/fax number, we can keep you informed about our further progress.

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