The invisible Sea of Waves – How It Affects Your Health



Over the course of evolution, we have all become accustomed to a natural electromagnetic "climate," composed of the Earth’s magnetic field [1, 2], the so-called Schumann resonances [3, 4], solar frequencies, and the oscillations of other celestial bodies [5, 6, 7]. Since the effect of any given field depends on both your specific location and the duration of exposure, it is worth taking a look at your workspace or sleeping area—the places where you spend the most time throughout the day. Furthermore, research suggests that our sensitivity to the influence of electromagnetic fields is heightened during the night.

Imagination or fact?

The invisible influence exerted by natural and artificial fields can be measured. In his research, Bergsmann [8] found that when people enter or leave an area disturbed by harmful frequencies, this is reflected in a statistically significant way in their heart rate variability (HRV). Bergsmann also points out that disturbances of the autonomic nervous system and chronic pain conditions of unknown origin can be associated with environmental stressors at a specific location. Heart rate variability measurement is a modern diagnostic method used to determine the heart's adaptability to various types of stress. It is also employed in competitive sports to track training progress.

Certain weather conditions (“sferics”) can also affect your well-being [9]. In a prospective study involving subjects who suffered from migraines or tension-type headaches, Walach, Betz, and Schweickhart [10] identified an influence exerted by “sferics.” Furthermore, the *föhn* (a warm, dry, downslope wind) can be detected through measurements of the erythrocyte sedimentation rate [11].

While the influence of the Earth's magnetic field is, on average, consistent across the globe (with the exception of a few local anomalies), the magnetic flux density—that is, the influence of electromagnetic energy emanating from the ground—varies from place to place, depending on the elements present and the structure of the Earth's crust (such as geological

faults or subterranean water veins). When the natural geomagnetic field undergoes significant alteration—which can occur due to natural causes, such as a solar storm—it may lead to adverse health effects, accompanied by non-specific stress-adaptation symptoms. These can range from increased production of stress hormones and a reduced production of the sleep hormone melatonin [12,13] to more severe outcomes, such as strokes and cardiovascular events [14,15,16].

What would happen in the absence of natural electromagnetic radiation?

Studies show that when organisms are shielded from the Earth's magnetic field, various types of disturbances occur [17]. Spending too much time in reinforced concrete structures—where one is cut off from natural fields—can lead to symptoms such as dizziness, vague aches and pains, sleep disorders, or stiff limbs [17]. The author Nakagawa termed this condition "magnetic field deficiency syndrome." Between 1974 and 1976, at the Isuzu Hospital in Tokyo, he treated 11,648 patients exhibiting signs of this syndrome by applying magnets to their bodies—thereby reintroducing a static magnetic field—and was able to significantly alleviate the reported complaints.

Research also suggests that the static geomagnetic field may be a prerequisite for certain bodily functions—which is not surprising, given that living organisms contain many electrically charged particles essential for these processes. In accordance with the laws of electrodynamics, these particles are set in motion when exposed to a static field—for instance, when you are out jogging: "Even when a person is in motion, they are moving through the magnetic field; much like conductive material moving within a magnetic field, it is plausible that an electromotive force is generated in the process. Consequently, this electromotive force will vary depending on whether one is moving from east to west or from north to south; the speed of movement will also be a determining factor" [17, p. 13].

Are you a living antenna?

Using a special device that shields against artificial interference fields and simulates only the naturally occurring geomagnetic field, the expert Kirschvink succeeded—in repeatable experiments involving EEG measurements—in demonstrating that humans possess a magnetic sense [18, 19]. Other researchers have also speculated about the presence of magnetite deposits within human cells [20].

In their model, Balaguru et al. [21] describe the human spine as an antenna that acts as a receiver for this bath of electromagnetic waves. The uppermost end is the point of greatest tension, which, according to the authors, could potentially weaken the blood-brain barrier and thereby impair the central nervous system. The realization that metallic dental materials or implants can also function as antennas—or become antennas through the release of minute particles—is still in the very early stages of research.

Artificial Fields

Artificial electromagnetic fields may be one of the causes of many mysterious symptoms—such as insomnia, depression, cognitive or memory difficulties, and digestive issues—occurring within an environment already laden with various other toxins [22]. Environmental medicine specialists have observed that these symptoms often subside when the level of radiation in an affected individual's environment is reduced. Artificial fields are generated by mobile network antennas, as well as by all wireless receivers found in indoor spaces. In terms of your health, your mobile phone is the primary source. Current safety guidelines are inadequate for truly protecting you from harmful effects [23]. There are virtually no studies on the impact of such fields under real-world conditions—that is, in environments containing a mixture of different fields, or involving long-term exposure.

While you can nowadays avoid the involuntary inhalation of tobacco smoke, the same is not possible when it comes to electromagnetic radiation. Depending on where we are and how consciously we choose to use sources that emit such radiation, we are all constantly exposed to it—in terms of both space and time—without ever having given our “informed consent”. Based on the current body of research, the effects vary significantly from person to person. This is hardly surprising, as each individual’s unique internal "vibrational mix" interacts with external frequencies, inevitably leading to different outcomes for everyone. Think of it like an allergy: while one person might be able to eat anything, another may react to specific foods—depending on their personal history and their own state of health.

What artificial electromagnetic fields do to your body

The artificial generation of electromagnetic fields imparts properties to them that do not occur in nature; for instance, they are "pulsed" (following a precise rhythm), which compels your cells to behave in a specific way. In their studies, Panagopoulos, Johansson, and Carlo [24, 25] point out that it is not the frequency or field intensity of artificial fields—intensities can, in fact, be significantly lower than those of naturally occurring fields—that affect organisms and potentially cause long-term health damage, but rather their unnatural characteristics. Unlike natural fields—which are either unpolarized or only partially polarized—artificial fields exhibit perfect polarization. This means that, rather than reaching us in the way natural radiation does—as a collection of individual rays with varying angles, directions, and intensities, to which our bodies have been accustomed throughout human existence (such as through naturally occurring solar radiation)—these artificial fields arrive in a completely uniform, identical form. Our organisms are not equipped to handle this. Under such exposure, for instance, our cells open up, allowing an influx of calcium. While calcium is fundamental to the healthy functioning of your cells, artificial fields cause an excessive amount of it to flow in. The result is pure cellular stress [26]—much like constantly pouring oil onto a fire. Depending on the current state of an organism, this will, sooner or later, lead to the breakdown of various cellular functions. As the level of exposure increases, a heightened sensitivity may also develop.

In their conclusion, Del Seppia et al. [27] point to a potential link between the ubiquitous, varied electromagnetic fields present in our modern, communication-driven society and the increased incidence of pain—possibly because certain fields heighten pain sensitivity while diminishing the body’s own pain-dampening mechanisms. In 2021, Rubik and Brown [28] investigated the possibility that these fields might even interact with viruses.

What you can do

Identify and reduce sources Observe how you feel in different places—at home, at work, on the train, or while on vacation. Avoid "radiation hotspots," or limit the time you spend in such locations. If possible, switch these sources off entirely. The closer a radiation source is to your body, the greater the potential risk. Experiment for yourself by following these measures for five consecutive days. Observe whether your sleep and mood improve:

• Switch your mobile phone to airplane mode when you are not actively using it for a call.

• Turn it off completely at night and keep it away from your sleeping area.

• When making calls, use in-ear headphones, a radiation-reducing air-tube headset, or the speakerphone to ensure the greatest possible distance between the phone and your body.

• Use a landline telephone, or access the internet at home via a wired connection on your laptop.

• Exposure to Wi-Fi/WLAN signals or "smart" utility meters can also originate from your neighbors. If the opportunity arises, bring this to their attention; often, it is simply a lack of awareness that leads people to inadvertently cause harm to themselves and others through their devices.

• Take special care to protect children. Their brains are particularly sensitive to radiation. Having a mobile phone switched on inside a stroller, or talking on the phone while holding a child—these are things that should never happen!

You can find further research findings and many useful tips here [29, 30, 31, 32].

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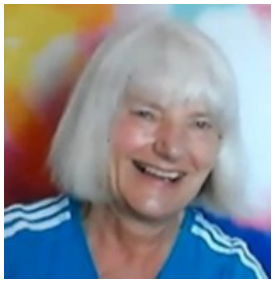
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