



Electromagnetic Pollution

Protecting yourself from the harmful effects of electromagnetic frequencies (EMFs)

People who desire to maintain good health will eat healthier food, exercise, take supplements and avoid harmful substances. Yet, even those actively working on their health often overlook an invisible influence that may be having an adverse effect on them. That influence is electromagnetic frequencies or EMFs for short.

We are immersed in a sea of EMFs in modern society. Cell phone towers and cell phones, radio and TV signals, Bluetooth and WiFi, satellite signals, radar, high voltage power lines and even household wiring and appliances emit EMFs. WiFi, Bluetooth and cell phones have become a universal part of our culture, and people often spend large amounts of time each day using these devices, which means that the EMFs the average person is exposed to today are radically different than what they would have been exposed to, even a few decades ago.

Although we don't know what the consequences of this will be, there is a growing body of research which suggests excessive exposure to EMFs is harmful. Very little of the research done over the past 25 years on this subject gets reported to the general public and what is reported is often contradictory. Some studies suggest EMFs are harmless, while others indicate they are harmful.

How Dangerous are EMFs?

The extent of the dangers or harm from EMFs is not yet fully understood. According to Nicolas Pineault, in his book *The Non-TinFoil Guide to EMFs*, about 30% of the studies which have been done were funded by companies that produce EMF technology. The other 70% are funded by what are presumed to be independent researchers. As happens with research in general, the results appear to be skewed by who funded the study.

In studies done within the industry, 27% found negative effects on human beings. In independent studies 68% found negative effects. Researchers who have found harmful effects have also had funding cut for their research, a situation that has occurred with similar research into GMOs, pesticides and other potentially harmful substances.

Here's one example of research that indicated potential harm. The United States Navy spent about 50-100 million dollars on a study that was published in 1984. Their research showed that exposure to harmful electromagnetic frequencies resulted in altered hormone levels, immune processes, cellular function and even modified brain wave activity in humans. It also showed that certain frequencies could cause birth defects in chicken embryos and sterility in male animals.

In this issue of *Sunshine Sharing* we'll talk about why you might want to reduce your exposure to EMFs and how you can protect yourself from their potentially harmful effects.

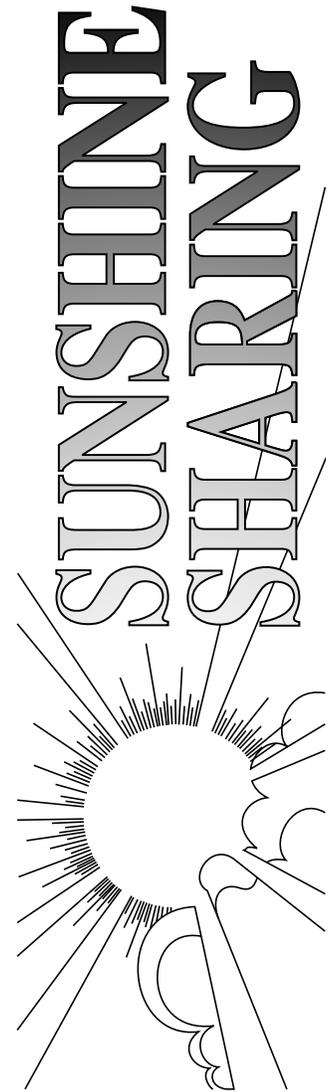
Life is Bioelectric

It is easy to focus on the chemical and structural nature of living things and ignore the energetic or electrical component. Plants, animals and people are bioelectric: they generate electromagnetic fields that can be observed and influenced.

We know that energy fields exist in living things but we're still learning how they operate. Various healing traditions have tried to understand and describe these energy fields or flows in the body with concepts such as meridians, auras and chakras.

There are also people who use energy to stimulate healing, using various devices that affect these fields. They use magnets, electrical pulses and lasers operating at different frequencies.

Continued on page 2



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Important Notice

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Continued from page one

Living things also respond to EMFs that are generated naturally in the environment. So, it is important to consider how EMFs generated by our electronic world are affecting us. Lets explore these interactions.

Understanding the Potential Risk of EMFs

We already know that certain types of radiation are harmful. For example both X-rays and gamma rays can cause cellular damage if we're exposed to high levels of them. Scientists call this type of radiation ionizing radiation and recognize its potential for harm.

Lower frequencies, such as radio or microwaves, are known as non-ionizing radiation. Non-ionizing radiation is considered harmless in small enough doses. It does generate heat which is dangerous in high dosages. We can get burned from excessive exposure to light for instance, and microwave radiation can cook food.

The assumption has been made that as long as we aren't exposed to enough non-ionizing radiation to cook or fry tissues that we're OK. Based on these assumptions, the United States and other industrialized nations have established minimum safety exposure limits for various kinds of radiation. Many people exceed these recommendations because of their constant use of EMF devices.

Furthermore, research suggests that there are complex biological effects with weak, non-thermal electromagnetic fields (EF), modulated radio frequencies (RF) and microwave fields below what will heat up tissues. We'll explain what the different types of EMFs are in *Understanding EMFs* on page 3.

Here's what some of the studies suggest.

Potential Dangers of Excessive EMF Exposure

To start with, just like some people can become highly sensitive to chemicals in the environment, some people appear to become sensitive to EMFs, a condition known as extreme electro-hypersensitivity (EHS). Symptoms of EHS include dizziness, anxiety, depression, headache, difficulty concentrating and remembering (brain fog), joint pain, tinnitus, irritability and general poor health.

There are studies suggesting EMF exposure to the head (such as talking on a cell phone) may adversely affect your brain. It can reduce memory and cognition, cause oxidative damage in the brain, alterations in mood leading to behavioral problems and headaches.

There is some possibility that exposure to RF may increase the risk of brain tumors, breast cancer and other forms of cancer. This is a subject of debate, but the World Health Organization did classify RF radiation as a "possible carcinogen" in 2011.

Research suggests that EMFs may be adversely affecting children, a big concern since many young people now spend a large part of their day on smart phones and other electronic devices. The research suggests this decreases attention span, contributing to ADHD, reduces memory and attention and can cause headaches. It may also increase a child's risk of diabetes, cause problems with bone growth and contribute to the development of leukemia.

There are studies that show carrying a cell phone in one's pocket can reduce male fertility and cause damage to the testes in men.

There is also research suggesting that cell phone radiation disrupts female hormones.

Reducing Your Exposure to EMFs

Considering the potential dangers of EMFs, here are some things you can do to reduce your exposure to them.



If at all possible avoid living within a quarter of a mile of cell phone towers, microwave relay stations, electrical substations, high voltage power lines or radar (airports). With the proliferation of cell towers,

this may become increasingly difficult, especially if you live in a big city. However, if you suspect EMFs from these sources are making you sick, it's wise to contemplate moving to an area where there are lower levels of EMFs. This is especially important if you already have poor health.

Next, reduce your use of devices that emit EMFs. Here are a few suggestions.

- Avoid talking on cell phones for long periods of time. Keep calls short. Use wired phones where possible.
- Minimize time spent surfing the web and playing games on smart phones, tablets or computers. Try reading a book, doing arts and crafts or doing something physical for exercise instead.
- Avoid using the microwave or get rid of it entirely.
- Don't buy smart appliances. Turn off WiFi capability for TVs and other similar devices. Use wired connections, such as ethernet, where possible.
- Don't have WiFi in your home unless you really need it. If you do need it, shut it off at night when going to bed. Also shut off electrical devices such as TVs and smart appliances.

Third, since the strength of the EMF emission drops off dramatically with increasing distance, keep electrical devices as far away from the body as practical. For example:

- Don't sit too close to computers or computer monitors. This includes not putting laptop computers on your lap
- Keep your cell phone away from your head by using the speaker phone or a wired, rather than a Bluetooth headset. Or use an airtube headset which doesn't put the speakers next to your ears.
- Avoid carrying your cellphone in your pocket.
- Keep your cell phone and all other electrical devices such as digital clocks or phone chargers as far away from your bed as you can while sleeping.

Finally, you may wish to consider using devices that help to shield you from EMFs. These devices are experimental and it's unclear how well many of them work. Nevertheless, you can do a little research on devices for EMF protection on the internet and make up your own mind whether they are worth experimenting with.

Continued on page 4

Understanding EMFs

The electromagnetic spectrum, pictured below, is a range of electrical and magnetic vibrations that travel through space. Longer vibrations, like radio waves, are at the lower end of the spectrum and shorter waves, like x-rays and gamma rays, are at the high end of the spectrum. Visible and invisible (infrared and ultraviolet) light are in the middle. The higher the frequency, the shorter the waves. The length of the various waves is compared to the size of various objects in the graphic.

Just about everyone knows that electromagnetic frequencies (EMFs) at the high end of the spectrum can be dangerous. The question to ask is, how safe are the EMFs on the lower end of the scale. There are four types of EMFs that we're regularly exposed to in modern society. They are radio frequencies (RF), magnetic fields (MF), electric fields (EF) and dirty electricity (DE).

Radio Frequencies (RFs)

Radio frequencies are used to send radio, TV and satellite signals. RFs include cell phone transmissions, WiFi and Bluetooth and microwave ovens. Every wireless device in your home uses these frequencies.

A microwave oven uses a much more powerful RF than a cell phone or Bluetooth headset, but the frequencies are often in similar ranges. A microwave typically operates at around 2.45 GHz, which means the RFs it emits vibrate 2.45 billion times per second. A 4G smartphone operates at 2.7 GHz (2.7 billion times per second) and WiFi networks are typically 3.85 to 71 GHz. The 5G networks that are rolling out right now operate between 3.85 and 71 GHz.

The fact that microwave ovens can cook food using RFs indicates that these frequencies can affect living tissue. The question is whether frequent low doses have a harmful effect or if the harmful effects are from more powerful RFs, such as those emitted by a microwave oven or microwave relay tower.

Magnetic Fields (MFs) and Electrical Fields (EFs)

When you go to the hospital and get an MRI you're being exposed to both a magnetic field (MF) and an electrical field (EF). MRI stands for Magnetic Resonance Imaging, which means that the machine is measuring how your body responds to the MF radiation.

MFs are generated by electrical current running through wires, transformers and electric motors. High voltage power lines and transformer stations generate very strong MFs. The wires, electric motors and transformers in your home are generating much smaller MFs but the closer you are to these devices the stronger the field.

When anything electrical is on, it produces a MF, but household wiring, power strips, ungrounded electrical appliances, power cords, chargers and electric lights also produce an EF even when they aren't turned on. So anything that's plugged into an electrical source is producing an EF.

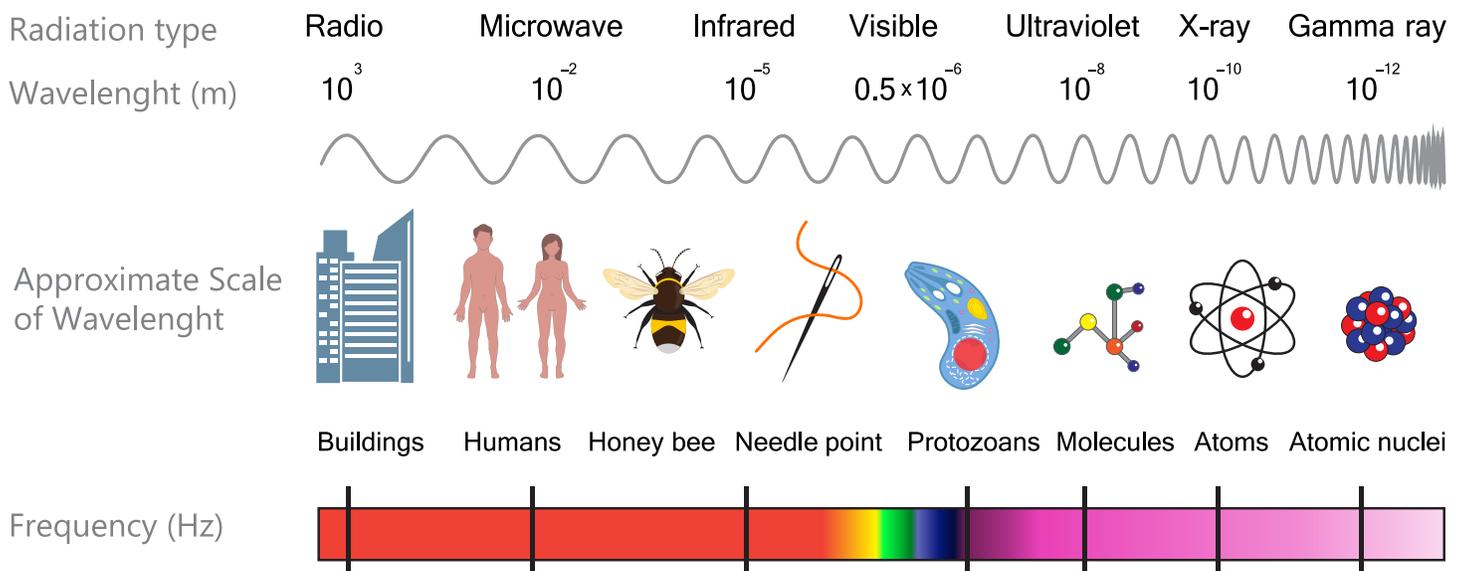
Dirty Electricity

The electricity in your home is oscillating or vibrating because it's AC (alternating current). It changes the direction of flow (or oscillates) sixty times per second (60 Hz) in North America or 50 Hz in much of the rest of the world.

Improperly installed electrical wires, fluorescent light bulbs, dimmer switches, energy efficient light bulbs, smart TVs, chargers for electricity and solar panel inverters all mess with this frequency. This means they can fluctuate the MFs and EFs being emitted in your home from between 300 Hz to 10 MHz. This is called dirty electricity (DE) and is another source of exposure to MFs and EFs.

Determining Your Exposure to EMFs

If you're exhibiting any symptoms associated with excessive exposure to EMFs (see page 2) or just want to see what EMFs you're being exposed to, you can purchase EMF testers on the internet. Get one that can test RFs, MFs and EFs so you can take steps to minimize your exposure.



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Continued from page 2

Strengthening the Body to Resist EMFs

The body has an ability to resist all negative influences. So, worrying about the dangers of everything potentially harmful to health isn't a good way to live. If you live an overall healthy lifestyle, you'll be more resistant to all negative influences, including EMFs. In particular, eating a lot of fresh raw fruits and vegetables will give the body more energy and nutrition to resist the potential adverse effects of EMFs.

Supplements may also be helpful. This is also an area of experimentation and potential debate. The following recommendations are based on my personal observations over the course of more than 34 years of experience working with EMFs.

Chinese Blood and Qi Formula

A *Chinese Qi and Blood Tonic Formula* has proven helpful for strengthening the body and helping people who regularly work around EMFs (computers, etc.) to resist their effects. Its Chinese name, Sheng Mai, means to "generate the pulse," referring to its ability to nourish the blood and increase vital energy (qi).

The formula contains many major tonic herbs used in TCM to fortify the body and has been helpful for boosting the entire system with people undergoing chemotherapy and radiation for cancer. These herbs include astragalus, Asian ginseng, ganoderma (or reishi), eucommia and lycium.

Anyone who has to work around EMFs on a regular basis and is experiencing fatigue, brain fog, reduced immunity or other similar symptoms may find it beneficial to take this formula.

Super Foods and Greens

A number of high energy herbs have also proven beneficial in fortifying a person against EMFs. These include spirulina, wheat and barley grass, various seaweeds like kelp, and bee pollen. A *Whole Food Green Drink* containing these and other foods may be very helpful in fortifying the body against EMFs.

Spirulina was one of the first herbs I used for helping the body resist EMFs. You can take the single herb or an *Algae Blend* that combines it with blue-green algae and chlorella. This blend is particularly helpful if you experience mid afternoon slumps in energy or start to lose focus and concentration after working on a computer for long periods. Take 2 capsules with breakfast, 2 with lunch and 2 more in the mid-afternoon.

Bee Pollen may also be very helpful. It is a high energy food that contains every nutrient needed by the body. You can take 4-6 capsules or about 1 teaspoon per day. If you suffer from pollen allergies, start with very small amounts and slowly increase your intake.

Other Helpful Options

Many potentially harmful environmental influences, including EMFs, cause oxidative stress on the body; making sure you have plenty of antioxidants is important. This is primarily done by eating a lot of fresh (preferably raw) fruits and vegetables, but may also be aided by taking an *Antioxidant Formula* containing ingredients like mangosteen, lycium, açai berry, sea buckthorn and turmeric.

Above all, it's important to cultivate a positive mental attitude. A person who nourishes their mind with wholesome, uplifting ideas and thoughts, as well as nourishing their body with healthy food, is more likely to resist all negative environmental influences, not just EMFs. That alone may be a reason to reduce your time on these electronic devices as social media and the internet is often filled with negative content. Reducing our exposure to it and even taking a complete break from it once in a while is healthy for the soul as well as the body.

Additional Help and Information

For more information about protecting yourself from the potential dangers of EMFs contact the person who gave you this newsletter. You can also consult the following resources:

The Non-Tinfoil Guide to EMFs by Nicolas Pineault

Radiation Nation by Daniel T. Debaun and Ryan P. Debaun

<http://www.consumerhealth.org/electromagnetic-pollution/>

<https://emfacademy.com/>

High Quality Products with Ingredients Found in

Electromagnetic Pollution

Algae Blend

Super Algae

Blue-Green Algae, Spirulina and Chlorella

Antioxidant Formula

Thai-Go

Mangosteen fruit & pericarp, Grape fruit & skin extracts, Blueberry fruit, Red Raspberry fruit, Lycium fruit extract, Açai berry, Pomegranate fruit, Sea Buckthorn fruit, Grape seed extract, Green Tea leaf extract and Apple fruit extract

Super ORAC

Green Tea leaf, Mangosteen pericarp, Turmeric root extract, Acai berry, Quercetin, Resveratrol and Selenium

Chinese Qi and Blood Tonic Formula

Trigger Immune

Astragalus root, Asian Ginseng root, Ganoderma mushroom, Barrenwort leaf, Eucommia bark, Lycium fruit, Rehmannia root tuber, Achyranthes root, Bai-Zhu Atractylodes rhizome, Hoelen sclerotium and Ligustrum fruit

Whole Food Green Drink Formula

GreenZone, Ultimate Powder

Rice, Flax seed, Spirulina, Quinoa, Chia seed, Chlorella, Millet seed, Alfalfa leaf, Broccoli flower, Kale leaf, Asparagus stem, Beet root, Chicory root and Acerola fruit