

The Use of EMF Filters for Electromagnetic Hypersensitivity

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✓ Fact Checked

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STORY AT-A-GLANCE

- › If you're Type 1 or Type 2 diabetic and are electrically hypersensitive, your blood sugar may increase when you're exposed to dirty electricity
- › Risk factors for electromagnetic hypersensitivity include spinal cord damage, whiplash, brain damage, concussion, chemical and heavy metal toxicity, impaired immune function and bacterial or parasitic infections such as Lyme
- › Dirty electricity has been shown to worsen multiple sclerosis (MS), and many MS patients report improvement when installing EMF filters to remove dirty electricity from their environment
- › Dirty electricity may also worsen asthma, heart problems, anxiety, infertility, tinnitus and other health problems
- › Test reveal microwave radiation causes red blood cells to aggregate and clump together, which can raise your risk of stroke, heart attack and other health problems

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In this interview, Magda Havas, Ph.D., discusses the benefits of electromagnetic field (EMF) filters. These devices are particularly important for those who are electrosensitive.

Most people just don't want to believe EMFs are problematic because electricity and electric, wireless devices are so incredibly convenient and provide us with many

logistical benefits. Most public health authorities also insist EMFs are safe. I was initially a skeptic myself, as was Havas.

I intellectually acknowledged there might be cause for concern, but I thought I could simply sidestep any danger by living a healthy lifestyle. Then, about a year and a half ago, I attended a presentation by Havas and Dr. Dietrich Klinghardt, which served as a powerful catalyst for changing my views – to the point I started taking aggressive steps to remediate and lower my exposure to EMFs.

Delving Into the Research

Havas is an associate professor at Trent University in Canada. Initially, her research focus was acid rain and metal pollution. In 1990, while teaching a course called "Pollution Ecology," she decided to include electrosmog as well.

"I had heard that children who live near power lines have an increased risk of developing leukemia," Havas says. "I thought this would be a different type of pollutant that I could introduce into the class. I update my lectures every year because the world of chemical toxicology changes so dramatically.

I began to look at the literature and found that it was really confusing. There were a lot of studies showing that, yes, children who live near power lines have a greater risk of developing various types of cancers ... I felt it wasn't time for me yet to enter this field because that wasn't my area of expertise. My area of expertise was chemical toxicology.

One day, my husband was visiting his brother in Wales. They were walking the dog late at night near a nuclear power plant. They went under some high-voltage transmission lines. My brother-in-law was a chemical mechanical engineer. He whipped out a fluorescent tube from under his coat and held it up under the power line. It lit up.

My husband came back and told me about this, because he knew I was interested but had put it on hold. That evening I unscrewed one of the tubes

from our kitchen, under the cabinets. I did the same thing near a high-voltage transmission line, and it lit up. That sort of intrigued me. I didn't understand the physics of it. I do now, but it took me a while.

I asked a friend of mine, a physics professor at my university, 'Do you think this could cause childhood leukemia?' It was his response that really turned me onto this research. His response was, 'Definitely not.' I think when you ask someone for their opinion about something, it's really important to find out what that opinion is based on, so I just asked him.

He said, 'There's not enough energy. It's not ionizing radiation. There's not enough energy to cause cancer, so you have nothing to worry about.' That wasn't a satisfactory answer. At that point, I decided that I was going to demolish the literature. I was going to go through absolutely everything very, very carefully, and figure out for myself whether I thought this was a real factor ..."

Tracking Down EMFs Effect on Cancer Cells

It took her three years to conclude the EMF childhood leukemia link was real, albeit the effect is small. She then scoured the occupational literature, looking at people who work in high electromagnetic occupations. Again, the literature showed there was an increased risk of leukemia, but also brain tumors and breast cancer.

From there, she began to look at natural EMFs to find out how the human body reacts to them. "I went from childhood leukemia, some residential exposure, to occupational exposure, to natural electromagnetic fields," she says. "And then a friend of mine suggested I look at the healing effects of electromagnetic therapies."

At this point, there didn't appear to be a predictable pattern to the effects she was finding. This finally changed once she delved into the research on pulsed electromagnetic fields (PEMF) to heal bone fractures. This is a well-established therapy that has been used since the 1960s. One of the documents stated PEMF should not be used on cancer patients, although it didn't specify why.

"What PEMF therapy does among other things is it increases cell division. When you have increased cell division in bone, that's good, because it's going to promote healing. But if you have increased cell division of cancerous cells, then that's not good. I sort of had an aha moment.

At that point, I realized that low-frequency EMFs can cause cancer and can definitely promote the growth of cancer. Since then, the research is just basically supporting all of that information. I went from studying extremely low frequency EMFs to doing research, and introducing it into my courses."

Dirty Electricity Can Have Marked Effect on Behavior

Around 2003, Havas was approached by a mother whose daughter was electrically hypersensitive. She asked Havas to conduct a study at the daughter's school, to evaluate the effects of EMF filters such as the Stetzer filter, which reduce dirty electricity. At the time, Havas was unfamiliar with dirty electricity, but reluctantly agreed to conduct the experiment.^{1,2}

"I was very skeptical that you can put something in an electrical outlet and that would clean the electricity and everyone would be happy and healthy after that," she says, noting that she really did not expect to find any effects of these filters.

"When I finally got to analyzing the data, I was absolutely shocked by what I found ... At that time, electrical hypersensitivity was attributed to less than 1% of the population. We didn't have a large enough sample size in the school. Even if one teacher was electrically hypersensitive, it wouldn't show up, because we didn't have a large enough sample size.

But we found that about 44% of the teachers improved while the filters were plugged in. We did a before and after, and because they didn't know what was going on, it wasn't a placebo effect. It was totally blinded. They thought we were evaluating their teaching ability. They had no idea what we were doing.

We told them we couldn't tell them because it would affect the results. But at the end of the study, we'd reveal all the information. We had a custodian who plugged filters in on the weekend. These are just little boxes that you don't really notice.

We did that study and found that teacher health improved, and student behavior improved. Many of the symptoms that improved in the school were those we associate with attention-deficit hyperactivity disorder. This was quite intriguing to me."

EMFs and Diabetes

After completing that experiment, Havas met Dave Stetzer, co-creator of the Graham-Stetzer filter (along with the late Dr. Martin Graham), and was able to learn more about his research first-hand. He told her he was prediabetic, and whenever he was in an environment with a lot of dirty power, his blood sugar increased.

Since blood sugar is an objective assessment, and something you cannot consciously control, Havas decided to study³ EMFs effects on diabetics. What she discovered was that if you're Type 1 or Type 2 diabetic, and are electrically hypersensitive, then your blood sugar will increase if you're exposed to dirty electricity.

"There's something called 'brittle diabetes,' which is a form of diabetes where people can't control their blood sugar. It suddenly goes up or it suddenly goes down, and it's not related to their activity, their food or medication. I really think that brittle diabetes is environmentally triggered.

I think one of the triggers is electromagnetic pollution, whether it's dirty power or higher radio frequencies. One of the people we worked with was a woman in New York, who was a Type 2 diabetic. She didn't take any medication ... If she measured her blood sugar and it was high, she would take a 20-minute walk, and it would come down to a normal, acceptable level.

On days when it rained or she didn't feel like walking outside, she would walk on an electric treadmill. Whenever she walked on the treadmill, her blood sugar actually skyrocketed, went way up, which is not what you would expect.

One of the things doctors recommend is exercise for their patients. They don't distinguish between walking outside or walking on a treadmill, but treadmills give off dirty power. They also have a high magnetic field.

So, if you're a diabetic and you're electrically hypersensitive, you might actually do more damage to your body because of the stress the electrosmog generates in the body. Hence, your blood sugar goes up."

EMFs Worsen Multiple Sclerosis

Another school experienced a dramatic reduction in asthma attacks, and the principal, who had multiple sclerosis (MS), improved almost immediately once Stetzer filters were installed. Intrigued, Havas started working with people diagnosed with MS. In the video, she shares a number of stories from her case files, some of which are rather dramatic. Here's one example:

"A woman told me, 'Tell me when you're coming for the interview and the measurements. I'll leave the door open. Just knock and come in because it'll take me too long to walk to the door to open it for you.' That particular woman, within six weeks, was not only able to walk without any assistance and open the door. She told me she actually went on a vacation with her husband and was dancing.

I kept thinking, 'No one's going to believe me, because I could barely believe my own eyes' ... I began to videotape these individuals. The videotape was my proof ... Many different types of MS benefited. Not everyone we tested benefited, but the vast majority had some improvement, not only in their physical ability, but also their cognitive abilities. It was really quite obvious."

MRI scans further showed that MS patients who had used EMF filters for several years had a decrease in the sclerosis in the brain. Not only did filtering EMFs improve the symptoms, but it actually allowed the body to heal itself. Results of this investigation into the effects of EMF on MS were published in 2006.⁴

Conditions That Increase Your Risk of Hypersensitivity

Havas became very interested in finding out how to diagnose electromagnetic hypersensitivity⁵ (EHS), which is recognized by the World Health Organization.⁶ (EHS is also sometimes referred to as idiopathic environmental intolerance, meaning the cause is unknown.) According to Havas, a number of conditions can increase your risk of EHS, including:

Spinal cord damage and whiplash	Brain damage and concussion
Chemical toxicity, such as high levels of mercury, lead, PCBs or other neurotoxins	Bacterial and/or parasitic infections such as Lyme
Impaired immune function and lupus	The very young and the very old

Tinnitus Shares Pathophysiology With EHS

Researchers have also found a significant association between tinnitus and EMF hypersensitivity, hinting at a shared pathophysiology between the two conditions.⁷ In this study, 89 EMF hypersensitive patients were compared to 107 controls, matched for age, gender, living surroundings and workplace environment.

Nearly 51% of EMF hypersensitive patients had tinnitus, compared to just 17.5% of controls. While prevalence was significantly higher among those sensitive to EMFs, tinnitus duration and severity did not differ between the two groups. According to the authors:

"Our data indicate that tinnitus is associated with subjective electromagnetic hypersensitivity. An individual vulnerability probably due to an overactivated cortical distress network seems to be responsible for both electromagnetic hypersensitivity and tinnitus. Hence, therapeutic efforts should focus on treatment strategies (e.g., cognitive behavioral therapy) aiming at normalizing this dysfunctional distress network."

EMFs Effect on Heart Rate

One organ that is particularly sensitive to EMFs is your heart. To investigate, Havas conducted an experiment⁸ with people who claimed EMFs caused heart palpitations, very frequently when entering certain stores, or the mall.

"They felt as soon as they walked in, their heart rate would rise. They would have kind of an anxiety attack and have to leave the store as quickly as possible," Havas says.

"Often, they said they would make a list, go in and do the shopping as quickly as possible and leave, because the longer they stayed in the store, the worse they felt. They would develop brain fog, become dizzy and nauseous."

Using heart rate variability technology, Havas and Jeffrey Marrongelle, a chiropractor who does energy medicine, assessed 25 people, some of which claimed to have EHS and others who had never even heard the term.

The participants were exposed to microwave radiation from the base station of a cordless phone, which emits nonstop radiation. Interestingly, while no real relationship could be found between those who claimed to have EHS and the exposure, people who were fit and in good health had the greatest response.

"Basically, what they experienced was a stress response. There was an increase in their sympathetic and a decrease in their parasympathetic response, with an increase in either heart rate or a change in the heart rate, in terms of arrhythmia

...

This was a double-blind study that was really very powerful, showing this is not something that people can actually regulate themselves.

Just one example, we had a person who had a heartrate of about 65. They were lying down on a mat. The cordless phone was behind their heads, so they couldn't see it and didn't know when it was turned on or off. Their heart rate zoomed up to 120 beats per minute while they were lying down.

Most people would have to go up at least a flight of stairs in order to get that kind of response from their heart. As soon as the phone was disconnected, their heart rate returned to normal. While this was a more extreme case, there were several people who had that kind of response."

EMFs Effects on Blood

Havas has also conducted many tests on her own blood over the years. She noticed that after working on the computer, her blood was coagulated and viscous.

After spending eight minutes on a PEMF mat, her blood was free-flowing again. Continuing her tests, she realized that whenever her body had been exposed to microwave radiation, whether from a Wi-Fi router, a cordless phone or cellphone, it went into rouleau formation (aggregates of red blood cells). She explains:

"There are virtually no cells that are single cells. Everything is just clumping together. We know that the effect of that is really quite damaging. It could cause a stroke. It could cause a heart attack. It certainly reduces your circulation in your fingers and toes, for example, leading to cold extremities and a tingling sensation.

All these tests we were doing was to try to alert medical doctors to what they can do in office to diagnose someone with EHS. Things like blood sugar, heart rate and blood coagulation are some of the things that can actually be done, so that doctors can do the diagnostics ...

There are some people who respond only to microwave radiation. They don't respond to anything else. Others respond primarily to dirty power. Dirty power and microwaves are virtually ubiquitous. They're everywhere ... I think dirty electricity is really a missing link.

There are very few people in the world studying the biological effects of dirty electricity. There has been a huge amount of research looking at electromagnetic interference, which is another thing that dirty electricity does.

Engineers are very familiar with this. They very often will shield against that to protect sensitive electronic equipment. They don't realize that by protecting the equipment, you're also protecting human health. That's really important."

Remediation Tools

Before you begin remediation, you need a couple of tools to actually measure the EMFs in your home or office. Here, it's important to realize that not all devices accurately measure all three types of EMFs – the electric fields, magnetic fields and radiofrequency fields. Havas recommends three different types of meters:

- The Acousticom 2
- The TriField meter (while it measures electric, magnetic and radio frequencies, it's really only good for measuring magnetic fields. It's not an accurate tool for measuring electric fields or radio frequencies)
- A Microsurge (Stetzer) meter, which measures dirty electricity, and at least one Stetzer filter, to allow you to determine how much you can reduce the dirty power at any given location

"I think if you have these three different devices, and you know what the levels are, what you're looking for ... then you can go around your house and find out what you're exposed to. It's really quite simple," she says.

"There are ways of going around doing the measurements. The more you play around with it, the more comfortable you become with it. You'll find some real surprises when you have the meters, because things that you think might be turned off or aren't radiating may be and increasing your exposure. Doing your own testing is something I highly recommend."

As for the Stetzer filter, most homes will probably need at least 20. A large home may need anywhere from 40 to 80 filters in larger homes. At about \$40 apiece, the investment can be significant. You can, however, get a discounted bulk rate if you call **Stetzer Electric**. You won't find the discount online; you'll need to make a phone call and you can get the price down to around \$25 per unit.

It will be important to also purchase a meter, otherwise you will have no idea how serious your problem is and where to place the filters. Typically, two to three need to be installed in your bedroom (the most important), rooms that have computers, and the room close to your circuit breakers.

Ideally, readings should be below 50 and even better below 35. If installing a filter doesn't lower the reading by at least 20%, it is probably best to find a different location for the filter.

It also would be best to have a knowledgeable electrician evaluate your home for any wiring errors as that cannot be fixed by the filters. What's more, anything you plug into an improperly wired (code violation) circuit will increase harmful magnetic fields. A surprisingly large number of homes have wiring errors and can be as high as 30% or more in some areas.

Beware of Smart Lights

I've previously written about the dangers of LEDs and fluorescent light bulbs, but Havas brings up yet another, even worse, type of bulb – so-called smart lights that you can turn on and off with your smartphone.

"They radiate microwaves as high as your Wi-Fi router or your wireless phone," she says. I went to a lighting conference in Germany two years ago. I was giving a talk on different types of lighting and looking at the spectrum, looking at all the different frequencies they emit, including ultraviolet and the relative ratio of blue to red, all that kind of stuff.

The lighting industry was sponsoring this conference, so I said, 'Can you send me a good-quality lightbulb?' They said, 'No problem.' They sent me one and it was probably the worst bulb I've ever tested. It was one of these smart bulbs that as soon as you turn it on, it's emitting microwave radiation.

I remember talking to the president of the company when I went to Germany. I showed the results ... I said, 'Your lightbulb was one of the worst because of this microwave radiation. You know, it's making people sick.' He said, 'I had no idea. But the entire industry is going that way, and we don't want to be left out.'"

On Ground Current

Havas explains:

"It turns out you can have electricity flowing through the ground. This is happening more and more often. In part because of the way we use electricity in North America; with the way that we distribute it and transmit it.

We have so many multiple grounds that the electricity from an area of high electrical conductivity can move to an area where there's less electrons, so they just move through the ground. When you have moving electrons, you can create a current.

There are farms mostly in Wisconsin, Minnesota and Iowa that have a really serious ground current problem with their dairy cows. These cows are just constantly lifting their feet because they're being exposed to ground current. But it's not the 60-cycle that's most damaging. It's the dirty power [100 kHz] flowing through the ground that is causing it ...

There are people who claim that the best thing you can ever do is get grounded. I would agree with that, provided you're in an area where you don't have a ground current problem. It's like you can drink clean water, you can drink dirty water. They have very different effects.

If you have dirty electricity flowing through the ground, getting grounded means it's now entering your body, because it comes right in through one leg and down the other basically.

These devices that you plug into your electrical outlet that you then put on your bed so that you're grounded at night, people who use them are beginning to tell me that after a couple of days or a couple of weeks, they're actually beginning to feel quite ill.

My guess is that they've got dirty electricity coming through the ground, into their sleeping area, and hence, making them sick. You have to be very, very careful where you're grounded ..."

More Information

The EMF topic is a big one, and we've not covered every angle here. For more information about the mechanisms of harm, see "[Study Links Cellphone Radiation to Heart and Brain Tumors](#)," in which I review mechanisms of action proposed by Martin Pall, Ph.D., Alasdair Philips and Paul Héroux, Ph.D.

You can also peruse Havas' website, MagdaHavas.com, where you'll find a number of video presentations, historical references and general information about EMFs.

Links to her studies can be found in the reference section below. Five case studies⁹ were also published for the World Health Organization Workshop on Electrical Hypersensitivity in 2004, which you can read in full, and one of her most recent papers,¹⁰ "When Theory and Observation Collide: Can Non-Ionizing Radiation Cause Cancer?" can be found in the journal Environmental Pollution.

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