

SHUNGITE: The Electropollution Solution Special Report

by Valerie Burke

Public concern about our increasing exposure to electromagnetic radiation is on the rise. Despite claims by government and industry about “no health risks,” proactive consumers are looking for solutions. One that has recently appeared on the scene is a shiny black rock called shungite.

EMF (electromagnetic frequency) protective remedies are a dime-a-dozen on the internet, but what can we believe? How do we separate fact from fiction? Is shungite a healing miracle or fanciful hoopla?

As someone with a background in science, I look there first. I am a health and science writer with a background in both the physical and biological sciences. In addition to many years as an RN and as an advanced practice psychiatric nurse, I have spent the last fifteen years in integrative and functional medicine. What many don't know is that my *first degree* was in geology—so it's really no surprise that the healing powers of crystals have captured my heart and soul.

Even with this extensive background in science, experience has taught me that science has its limitations and other bodies of wisdom should not be so quickly discarded. Science—or what we Westerners generally consider “legitimate science”—often lags behind the wisdom of the ancients, and I have seen many well-meaning scientists blinded by their biases.

We live in a sea of **radiation** and it's getting worse. Computers, cell phones, cordless phones, smart meters and Wi-Fi—it's all around us. Research is mounting about the potential health risks of our long-term exposure to this unnatural radiation.

We are electrical beings. Everything in the natural world produces an electromagnetic field, from animals to humans to the earth herself. German studies show that living cells emit something called biophotons—weak electromagnetic fields that help them communicate with one another. [1]

It makes sense that EMFs from manmade devices could not help but interact with our own electromagnetic fields, for better or for worse. But do cell phones cause **brain cancer**? What about DNA damage? Reproductive problems? We can't point to definitive data—*yet*. But as any electrosensitive individual will tell you, the symptoms are real.

Many are beating the drum for shungite. In this article, I will review what we know about this mysterious rock and attempt to sort through the quasi-scientific mumbo jumbo while dispensing with a few untruths. Shungite has some impressive research behind it. Truth be told, *I am a fan*, but the data needs to be put in perspective. Before I get into shungite, I'll bring you up to speed on the latest science about the risks of EMFs.

The National Institute of Environmental Health Sciences defines EMFs as “invisible areas of energy, often referred to as radiation, that are associated with the use of electrical

power.” A wide range of electronic devices emit EMFs including baby monitors, cell phones, cordless phones, Wi-Fi routers, smart meters, and other wireless devices.

Cell phones... can't live with 'm, can't live without 'm. Although many continue to discount the risks, *there is plenty of data to make my alarm bells ring.*

Cell phones emit microwave radiation in the 2 to 5 Gigahertz range. In 2016, the National Toxicology Program released disturbing preliminary results from the largest-ever cell phone study, showing a link between cell phone radiation and **cancer**. [2] Rats exposed to the frequency of radiation emitted by cell phones develop two kinds of cancerous tumors: gliomas in the brain and schwannomas in the heart. Sadly, these results are in alignment with several observational studies finding links to the same types of tumors in humans, plus acoustic neuromas and meningiomas. [3]

After an extensive scientific review, in 2011 the IARC (International Agency for Research on Cancer, part of the World Health Organization) released a report classifying cell phone radiation as a possible human carcinogen. [4] In 2015, 190 independent scientists from 39 countries sounded the alarm for stricter controls on cell phone radiation.

Yet, in spite of all this, the US government continues to insist cell phones are *completely safe*, and the CDC even *deleted* cautions from their cell phone fact sheet. [5]

One study found that using a cellphone for just 20 minutes per day increases brain tumor risk by 300 percent over the course of five years. [6]

Whatever risks cell phones and other electronic devices pose to us, they pose an *even greater risk* to our children. Holding a cellphone to your ear allows between 10 and 80 percent of the EMFs to penetrate two inches into your brain—which is especially concerning for infants and children whose heads are smaller and delicate brains are still developing.

Cell phone radiation may be harming our children even before birth. In a study published in the journal *Epidemiology*, researchers found a 25 percent increase in emotional problems, 34 percent increase in peer relationship issues, 35 percent increased hyperactivity, and 49 percent more behavioral problems among children whose mothers used cellphones during pregnancy, compared to moms who did not. [7]

Unlike ionizing radiation that produces damage by heating up tissues, low-level radiation in the radiofrequency and microwave part of the spectrum causes biological effects without raising temperatures. According to EMF expert Martin Blank, PhD, these frequencies “stress” cellular proteins in human cells. This may explain many of their harmful effects such as **inflammation**, cardiovascular disease, and cancer. [8]

EMFs have been shown to cause serious mitochondrial dysfunction from free radical damage. Mitochondria are the tiny energy powerhouses inside our cells. Free radical damage is linked to anxiety, dementia, autism, ADHD, cardiac arrhythmias, depression, and infertility.

Dr. Martin Pall of Washington State University has published a number of papers about the mechanisms by which EMFs inflict damage to plants, animals and humans. He has concluded that EMFs damage voltage-gated calcium channels (VGCC), allowing calcium to flood into your cells. This triggers a biochemical cascade resulting in massive numbers of free radicals that damage your cell membranes and mitochondria, break your DNA, accelerate aging, and drive up your risk for chronic disease. [9]

Rates of **chronic disease** are soaring. Since 1990, we have seen an explosion of autoimmune, neurological and metabolic diseases. Alzheimer's has increased by 299 percent, depression by 280 percent, and chronic fatigue by a staggering 11,027 percent. [10] Many experts speculate that mitochondrial damage from EMFs is a major factor.

EMFs are now directly associated with the following:

- Reproductive effects (e.g., reduced sperm count and motility, reduced fertility)
- DNA damage and oxidative stress
- Brain cancer
- Cognitive problems (impaired reaction time, memory, brain fog)
- **Insomnia**
- Fatigue and malaise
- Tachycardia
- Digestive disturbances
- Cataracts

To learn more about the health risks of EMF exposure, Ann Louise Gittleman has written an excellent and very readable book on the subject, **Zapped**.

Now that you have an evidence-based understanding of the risks of radiation, let's take a look at one of the tools that we can use to help shield us from this growing 21st Century threat: *shungite*.

If you've never heard of shungite, you're not alone. This mystery mineral first came into my awareness when I was researching crystals with EMF-protective properties. Many crystals and minerals are described by energy workers as protective against radiation, but there is little science behind most of these claims. Not to completely discredit the body of what I would call "intuitive knowledge," *but it's nice when empirical studies actually exist!* Shungite is unique in that there is actually a scientific basis for its claims—or at least some of them.

Shungite has wide-ranging health (and industrial) benefits stemming from its unique molecular structure. It is touted as offering everything from radiation protection to treating infections, inflammation, **allergies**, high blood pressure, osteoarthritis, digestive problems, and skin conditions. In Russia, shungite has been studied extensively for the treatment of depression, trauma and many mental/emotional problems.

Shungite is the world's oldest hydrocarbon-based rock. [11] It's not a mineral in the strictest sense of the word, although it's often referred to as one. Shungite comes from only one place on Earth—an area known as Karelia, which is a geographic area divided between Russia and Finland (just north of Saint Petersburg).

In 1887, shungite was named after the village Shung'a in Russian Karelia, near the shore of Onezhskoe Lake. The Karelian rock formation, known as the Zazhoginsky deposit, contains about 35 million tons of shungite and shungite rock.

Shungite may be new to Westerners, but the Karelians have been using it medicinally for centuries. Shungite lore dates back to the reign of Ivan the Terrible, at which time it was simply referred to as "local slate."

As the story goes, in the 18th century, Peter the Great noticed shungite's powerful healing effects and constructed a shungite spa for his soldiers. Many had been poisoned by a type of ore they were processing. Men who drank water from a nearby spring that ran through the shungite deposit recovered in just three days—much faster than normal. This is the origin of "shungite water".

Shungite dates back two billion years to the Precambrian era. *Yes, that's billion with a B!* This was a time when life on our planet was limited to primitive single-celled organisms. For reference, our solar system is about 4.6 billion years old. Shungite formed when organisms accumulated and mixed with mud and silt on the bottom of a brackish water body. Geothermal heat and compression transformed these organic materials into liquid hydrocarbons—probably much like oil—which *slowwwwwly* became petrified into rock.

Shungite has unique physical and chemical properties due to its microstructure (atomic structure, conductivity, and magnetic properties). [12] It consists of unusually large, hollow, and stable carbon structures with a high oxidative and reductive capacity, which is where shungite derives its antioxidant properties. The mineral's conductivity is one way you can distinguish between real shungite and a fake.

Shungite contains carbon, silicate minerals, iron, titanium, **magnesium, potassium, calcium**, sulfur, aluminum, and a significant list of other elements. Some are claiming that shungite contains "all the elements in the periodic table," but this really appears to be an exaggeration. [18]

There are different grades or classes of shungite, based on its carbon content. In the literature, I noted three-grade and five-grade classification schemes, but the three-grade is most widely used. Originally, the term "shungite" indicated only those specimens that were 98 percent pure carbon, but now it is used more broadly to indicate any rock that contains some shungite.

The box that follows is the classification scheme used by Regina Martino in her book *Shungite: Protection, Healing and Detoxification*. [13]

- Type I Shungite (aka Elite or Noble Shungite): Purest form of shungite with carbon content at least 98 percent; shiny silvery semimetallic luster; does not lend itself to cutting and shaping; accounts for only one percent of all available shungite
- Type II (aka Black Shungite): 50-70 percent carbon; because it's easily shaped and polished, this is the type typically used for sculptures and jewellery; black in colour with semi-dull luster (unless polished)
- Type III (aka Grey Shungite or Shungite Rock): 30-50 percent carbon; grey in colour with dull or matte luster

This scheme begs the question, what about 70 to 98 percent carbon, and zero to 30 percent carbon?

Another classification scheme divides shungite into low carbon (5 percent), medium carbon (5-25 percent), and high carbon (25-80 percent) varieties. The problem with this is, it leaves out the most valuable type of shungite—the 98 percent carbon variety.

Why does carbon matter? The more carbon your sample has, the stronger its wonderful properties. The reason for this is a molecule called a fullerene. What on Earth is a fullerene, you might ask?

In 1985, laboratory chemists synthesized unique, hollow, carbon-rich molecules shaped like soccer balls. They named these new molecules “fullerenes” (or “buckyballs”) after the late Buckminster Fuller, famous for his geodesic dome architectural structures.

Fullerenes were basically molecular hexagons and pentagons bound together into hollow cages. Each carbon atom served not only to hold the molecule together, but also as a point of attachment for an external atom or molecule. This structure gave rise to a staggering number of chemical combinations. Fullerenes became the “tinker toys” of nanotube technology, giving rise to all sorts of innovations from drug delivery systems to solar cells to bulletproof vests.

In 1991, *Science Magazine* distinguished fullerenes as the “molecule of the year,” and in 1996, the scientists who originated them were awarded the Nobel Prize in Chemistry.

When synthesized in the lab, fullerenes were considered nonexistent in nature. But in 1992, they were discovered *in shungite!* [14] To this day, scientists remain mystified about how these unique molecules were able to form. They require very high temperatures and pressures; therefore, the top two theories of origin involve lightning strikes and meteorites.

Fullerenes are not abundant in shungite, despite what you might read. In fact, they've only been found in elite (noble) shungite and black shungite, with a greater proportion in the elite. [15] [16] [17] [18] One analysis estimated fullerenes to represent only 0.0001 to 0.0001 percent by weight. [19]

Shungite contains seven types of fullerenes, containing between 24 and 70 carbon atoms, but from what I understand, only the larger fullerenes (60 and 70 carbons) have the desired stability.

Naturally occurring-fullerenes have the additional property of encapsulating water and gases (helium for one) inside their hollow carbon vaults.

Natural fullerenes are members of a highly exclusive club. Since their discovery in shungite, they have been found in fulgurites (glassy rocks produced by lightning strikes), meteorite impact craters, lava flows, coal, fossilized dinosaur eggs, and cosmic dust from planetary nebulae. Personally, I vote for the meteorite impact theory.

The Karelians have utilized fullerenes for centuries without knowing what they were. It's believed the healing properties of the spring water that flows through shungite outcrops is a result of the fullerenes. Shungite is one of nature's gifts for cleansing the environment, but it may have equally impressive effects for cleansing our bodies. Shungite can be consumed orally or applied topically via shungite **water**, or the stones can be worn on or close to the body.

Thanks to shungite's unique structure, it grabs onto many different things including chemicals, volatile organic compounds, drugs, chlorine, fluoride, and radioactive particles. It also kills a wide variety of bacteria, viruses, phages and other pathogens. [20] Shungite can neutralize a significant number of toxins because it holds a massive quantity of hydrogen, making it very effective for water purification.

Shungite studies, as well as anecdotal evidence, point to a long list of potential health benefits. [13] Some of these are backed up by studies. Others are simply mentioned in articles. Often a study is described but no citation is provided, making the validity difficult to ascertain. I think a good deal of literature probably exists in Russia, which is difficult to access. Adding to the struggle, many of the studies are in Russian!

- Inflammation
- Elimination of free radicals (antioxidant effects, reduced cellular damage)
- Antibacterial and antiviral
- Antihistamine (suppressing allergies)
- Anticancer (slowing cancer cell growth)
- Pain reliever
- Immune booster, faster healing and tissue regeneration
- Protection from ionizing radiation, non-ionizing radiation (including EMFs), geopathic stress
- Enhanced detoxification
- Benefits reported for high blood pressure, osteoarthritis, respiratory tract infections, diabetes, gastrointestinal conditions, skin conditions such as psoriasis, and faster recovery for cancer patients following radiation therapy

Shungite's healing properties were first examined by Ukrainian scientist Grigory Andievsky. He arrived at the conclusion that fullerenes act as adaptogens in the body, working at a cellular level but also systemically.

Thanks to its soccer ball shape, a natural fullerene attracts free radicals that end up stuck to it, covering its entire surface. Having numerous free radicals side-by-side on a fullerene leads to their transformation into a neutral compound. A fullerene does not lose its molecular composition and continues to attract more free radicals.

A natural healthcare clinic in the UK cites a study at National University Pharmacy in the Ukraine that found a significant drop in liver inflammation among **hepatitis** patients drinking fullerene water, although the author did not provide a citation and I was unable to find the study.

In 2006, research was presented at a scientific congress in Russia, entitled "Shungite and the Protection of Human Life." At this meeting, a large volume of scientific data was presented covering most of the health benefits summarized above. Now let's take a look at one particularly special application of shungite: radiation protection.

Shungite offers protection against both ionizing and non-ionizing EMFs. It's not clear what the full range of frequencies might be that it affects. Several studies suggest shungite offers protection from ionizing radiation, such as ultraviolet and X-rays. A 2017 rodent study discovered a topical shungite preparation imparted significant protection to hairless mice exposed to UVB radiation due to **antioxidant** and anti-inflammatory effects. [21]

In her book, Regina Martino describes a study at the Ukrainian Academy of Medical Sciences involving volunteer cancer patients. The group drinking water exposed to shungite had their blood panels return to normal within two to three weeks of radiation therapy, whereas the control group took three to four months.

The Grigoriev Institute for Medical Radiology at the national Academy of Medical Science of Ukraine exposed rats to radiation. The rats given shungite water for 15 days showed a 95 percent survival rate, compared to 63 percent for the control group not given shungite water.[22]

What about shungite and *non-ionizing* electromagnetic fields—the kind emitted by computers, TV and radio, power lines, cell phones, cordless phones, smart meters, and Wi-Fi devices? These EMFs represent radiation in the radiofrequency and microwave frequency ranges, and they surround us all day, every day. For evidence about shungite's effects on these, we must dive into the fascinating field of bioenergetics.

Regina Martino has been conducting experiments on shungite since 2006. She studies the impact of natural objects, such as minerals and crystals, on the energetic bodies of living beings, which includes our subtle energy centers or chakras. She defines bioenergetics as the science that studies these "vital fields." The following is how I understand it, based on what I gleaned from her book.

Energetic fields move out from our bodies like ripples on a pond. In most people, the vital field extends out from the body about five to eight feet. Our vital fields are almost immediately affected by any change in our internal or external environment, including food, water, toxic exposures, emotions, lifestyle, and overall health.

If there is a persistent disturbance reducing the vital field, it can lead to physical or emotional illness. Chronic exposure to electromagnetic radiation is one of those disturbances. Many people are unaware of how EMFs are affecting them until they are away from them for a while.

In repeated experiments, Martino has been able to measure the effects of shungite—and hundreds of other **minerals**—on human vital fields. She has developed a highly reliable, reproducible way to measure these energetic fluctuations. She has found that shungite, more than any other rock, is able to realign the chakras and optimize the vital field. Essentially, shungite transforms artificial EMFs into biologically compatible frequencies, thereby neutralizing their negative impact. In other words, it transforms harmful radiation—not by eliminating it but by changing its properties. This can happen whether the shungite is in direct contact with your body or just nearby.

In particular, shungite greatly increases or concentrates of the vital field in the first chakra, or “root chakra.” The density of our energy (density here is a good thing) is directly linked to the strength of our first chakra. When we feel weak or depleted, our energy density is low, but when it’s high we experience greater resistance to external disturbances and a better capacity to recover from illness or emotional trauma. Martino writes much more about this in her book.

Here is another way to understand it. In *The Book of Stones* Robert Simmons writes: [23]

When we bring the crystal into our electromagnetic field, two things occur. The electromagnetic frequencies carried by the stone will vibrate with related frequencies in our own energy field through the physical law of resonance, creating a third larger vibration field. The nervous system is attuned to these shifts in energy and transmits this information to the brain. Here the frequencies stimulate biochemical shifts that affect the physical body and shift brain function.”

German studies have demonstrated that electromagnetic radiation from crystals impacts our biophotons. When crystals are placed on or near us, our brain patterns actually change. [24] The effects can be profound when a crystal encounters like-frequencies, a phenomenon known as “resonance.” Shungite appears to transform manmade EMFs into waveforms that are more compatible with our biology.

There are three primary ways shungite can be used:

- Wear shungite jewelry, or carry a piece in your pocket
- Place shungite forms around your home or workplace
- Drink shungite water, or apply it topically

Type I Shungite is the purest and most powerful form of the mineral, but it's also the most expensive. Because this type is not easy to shape or polish, it is most often used in its raw form. It is the only type I recommend for making shungite water, which is discussed in the next section.

Type II shungite (black shungite) can be carved and polished into forms, such as **spheres and pyramids**. It's typically used for jewellery, palm stones and larger sculptures placed around a space to mitigate the effects of EMFs coming from your devices, as well as from your neighbours. Many individuals report feeling better when wearing these stones. You may or may not "feel" the energy of a piece of shungite, but sensing is not required in order for you to reap its benefits. Shungite jewellery should be metal-free or at least have a minimal amount of metal, because metal is essentially an EMF antenna.

Besides writing, my lifelong passion for art has led me into designing **healing jewellery**, and my stone of choice is shungite. I also have a collection of **shungite gardens** for the home and workplace—striking combinations of EMF protective crystals. *My feeling is that EMF protection should be as beautiful as it is functional!*

According to Martino, when shungite is carved into forms, each form has its own unique effects and **emanations**. She notes pyramids for their high power and range. For example, a pyramid with 2.8-inch sides emanates 9.8 feet from its flat side and 11 feet from each edge. On the other hand, spheres emit a more uniform and harmonious energy that's better for living rooms and bedrooms. As an aside, shungite placed on or around an electronic device does not interfere with the function of the device.

Ideally, you would place shungite both on your body AND around your living space, creating overlapping shields of protection. Electromagnetic fields are ubiquitous today—we can't see them and we can't escape them, so the more sources of protection we have, the better.

Does shungite need cleansing?

Amazingly, it does not! It is a self-cleaning mineral that does not hold on to negative energies. This is related to the fact that it transforms energy, rather than absorbing it.

How to choose a stone? Let it choose you. "Every single stone has its own special vibration. That's why different people are called to a different stone, because it's in alignment with what there is...that particular vibration is when a person comes in here and they can walk through, not notice many extraordinary stones, but all of a sudden, they are attracted to a particular stone. That sense of attraction is intuitive intelligence, as far as I'm concerned. And it's the most important thing that happens here and maybe a lot of places in life; pay attention to that sense of attraction because it's your right brain, your intuitive intelligence is communicating."

Shungite has been used commercially in Russia for water purification since the 1990s, and studies continue worldwide. [27] According to *Dancing with Water*: and other sources, shungite is effective in removing many types of pathogenic bacteria and other microbes, **heavy metals**, radioactive particles, nitrates, pesticides, volatile organics,

pharmaceuticals, chlorine, and fluoride. Shungite water's ability to neutralize contaminants is said to come from its capacity for holding a tremendous amount of hydrogen.

A recent study laid the groundwork for potentially utilizing shungite in the cleanup efforts at Fukushima. Shungite was found to have the ability to remove impressive amounts of radioactive contamination from water. The results were published in the May 2017 issue of *Carbon*. [28] [29]

As some of the previously mentioned studies reveal, shungite water is known for its antioxidant effects, leading many to start brewing up their own. Shungite is said by some to “restructure” water into a more biologically beneficial form, although I lack a clear explanation of this. Many different protocols for making shungite water can be found on the Internet, but a word of caution is in order. I recommend using *only Type I shungite* (elite shungite, 98 percent carbon or higher) from a reputable source.

Some folks are using black shungite, but from the chemical analyses that have been published, there is a risk of leaching heavy metals into the water that you do not want to ingest in large quantities—particularly **aluminum**, copper, iron, and nickel. Black shungite has between 30 and 50 percent non-carbon elements, which are all water soluble to various degrees and can concentrate in shungite water. [20] The risk is much lower from elite shungite due to its high carbon content, so it's worth the investment.

I use Regina Martino's protocol for making **shungite water**. The ratio she recommends is 100 grams (3.5 ounces) of elite shungite per litre of water. Here's how you make it.

Rinse the shungite pebbles to remove dirt and dust. Combine them with water in a glass or ceramic carafe. I use filtered water and a gallon-sized drink dispenser with a stainless-steel spigot for ease of pouring. Let the shungite and water mixture sit overnight, or for three days for maximum effect. Consume one to two glasses per day. Refill your container when the water level gets low.

The shungite keeps indefinitely without becoming negatively charged—at least in the energetic sense. That said, there is some risk of the pebbles picking up impurities such as nitrates, chlorine, fluoride, or even mold, so she advises purifying the pebbles in the sun every four to six months. She also recommends changing out your shungite pebbles every two to three years if you're using heavily chlorinated or polluted water.

This is a pretty neat trick for you campers out there—pack some shungite for your next camping adventure!

Shungite baths allow you to soak your entire body in shungite love. Simply add 400 to 500 grams (about a pound) of shungite pebbles to very hot bath water. When it has cooled to tolerance, climb in and soak until it's no longer warm, at least 15-20 minutes.

Unfortunately, there is no shortage of dishonest individuals who would love to take your money in exchange for fake shungite. My number one rule is, know your source and buy only from a reputable supplier.

The good news is, there is a very reliable way to tell if your shungite is fake. Genuine shungite conducts electricity, which is a rare property for stones and crystals. Other than natural metals like gold, silver and copper, most minerals are good insulators but poor electrical conductors. A few minerals are semiconductors such as galena, pyrite, graphite, sphalerite, cinnabar, and several others, but these do not conduct electricity like shungite.[30]

I check my shungite using a digital multimeter. If you don't have a multimeter, people have done the same process using a basic flashlight battery, and a couple pieces of wire.

Now for a little “mineral identification 101.” Genuine shungite is rarely pure black and will have inclusions, imperfections, flecks and veins of other minerals, such as pyrite and mica. Look for little light colored or metallic flecks and veins, which is a sign you have the real deal.

Shungite looks much like the mineral galena (**lead** ore). However, galena is much softer than shungite and has very different cleavage.

Galena cleaves into cubes, in three perpendicular planes. On the other hand, elite shungite has a conchoidal fracture—meaning, the cleaved surfaces show concentric rings. If you're familiar with obsidian (volcanic glass), it's like that.

Galena is also *very heavy* for its size—it has a high specific gravity. Shungite is much lighter because it has a much lower specific gravity.

By now, you have a good overview of the latest information about shungite. The evidence for shungite's water purification ability is certainly compelling. Its ability to mop up radiation and help cleanse our bodies of free radicals is also impressive, because reducing free radicals brings us a step closer to lowering our risk for cancer, chronic disease, and premature aging. Shungite is also antibacterial and antiviral, which is important in this age of increasingly resistant superbugs.

More studies are needed, especially in the West. Russia had a jumpstart on us by virtue of its proximity to shungite. Nevertheless, the existing body of data should give us hope.

It is tempting to place an inordinate amount of faith in objects that promise us safety, so beware of overconfidence. EMF exposure is cumulative. Even if these stones provide some measure of protection, they are not a license for limitless exposure. We love our technology but we must be smart about its use.

The foundation of your EMF defence plan should be minimizing your exposure while supporting your body's innate ability to protect and heal itself. EMF jewellery should only be used as a “supplement,” an added boost. The only *sure* way to protect yourself is to reduce your exposure... unplug, reconnect with nature, eat well, do your emotional “clearing,” and support your body's detoxification processes.

You cannot completely eradicate EMFs from your life, but you *can* minimize your exposure. Here are a few tips for reducing you and your family's EMF load:

- Keep your cellphone away from your head, and increase your distance from EMF-emitting devices as much as possible
- Limit cellphone use to areas with excellent reception because the phones use more power (and therefore emit more radiation) where reception is poor
- Turn off your Wi-Fi router and cellphone when not in use
- Unplug your bedroom
- Consider eliminating wireless altogether, and opt for Ethernet cables instead
- Do not allow your children to use cellphones
- Sprinkle a little shungite into your life!

Details: www.theshungiteexperience.com.au

References

- [1] M. Bischof. "**Biophotonen: Das Licht in unseren Zellen**" (German), Zweitausendeins, ISBN-10: 3861507412.
- [2] M. Wyde et al. "Report of Partial findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats (Whole Body Exposure)," June 23, 2016 <https://doi.org/10.1101/055699>
- [3] D Schipper, "**Does Cell-Phone Radiation Cause Cancer?**" Consumer Reports, September 28, 2015
- [4] "**IARC classifies radiofrequency electromagnetic fields as possibly carcinogenic to humans,**" Press Release, IARC, May 31, 2011
- [5] D Hakim, "**At C.D.C., a Debate Behind Recommendations on Cellphone Risk,**" The New York Times, January 01, 2016
- [6] I Yakymenko et al. "**Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation.**" Electromagnetic Biology and Medicine 35, no. 2 (July 07, 2015): 186-202. Accessed September 14, 2017. doi:10.3109/15368378.2015.1043557
- [7] H Divan et al. "**Prenatal and Postnatal Exposure to Cell Phone Use and Behavioral Problems in Children,**" Epidemiology. 19(4):523-529, JUL 2008; DOI: 10.1097/EDE.0b013e318175dd47
- [8] ML Pall. "**Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects,**" Journal of Cellular and Molecular Medicine. 2013;17(8):958-965. doi:10.1111/jcmm.12088

[9] M Pall, “Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action,” *Reviews on Environmental Health*, April 2015, 30(2) <https://doi.org/10.1515/reveh-2015-0001>

[10] R Lear, “**The Root Cause in the Dramatic rise of Chronic Disease**,” August 2016, Academia PDF, 50 pages

[11] J Craig et al, “The palaeobiology and geochemistry of Precambrian hydrocarbon source rocks,” *Marine and Petroleum Geology*, February 2013, 40:1-47, <https://doi.org/10.1016/j.marpetgeo.2012.09.011>

[12] SV Krasnovyd et al, “Local structure and paramagnetic properties of the nanostructured carbonaceous material shungite,” *Nanoscale Res Lett*. February 2015, 10:78 doi: [10.1186/s11671-015-0767-9](https://doi.org/10.1186/s11671-015-0767-9)

[13] R Martino, “Shungite: protection, healing, and detoxification, Rochester, VT: Healing Arts Press, 2014

[14] M Brown, “**Nature, It Turns Out, Made a Molecule Long Before People Did**,” *The New York Times*, July 10, 1992

[15] VA Melezhik et al, “A giant Paleoproterozoic deposit of shungite in NW Russia: genesis and practical applications,” *Ore Geology Reviews*, January 2004, 24(1-2): 135-154, <https://www.sciencedirect.com/science/article/pii/S016913680300043X?via=ihub>

[16] PR Buseck, “Geological fullerenes: review and analysis,” *Earth and Planetary Science Letters*, November 2002, 203(3-4):781-792 [https://doi.org/10.1016/S0012-821X\(02\)00819-1](https://doi.org/10.1016/S0012-821X(02)00819-1)

[17] G Parthasarathy and M Vairamani, “Testing for fullerenes in geologic materials: Oklo carbonaceous substances, Karelian shungites, Sudbury Black Tuff: Comment and Reply,” *Geology*, January 2004, 31(1):e32-e33 DOI: <https://doi.org/10.1130/0091-7613-31.1.e32>

[18] PR Buseck et al, “Fullerenes from the geological environment,” *Science* July 1992;257(5067):215-217 DOI: [10.1126/science.257.5067.215](https://doi.org/10.1126/science.257.5067.215)

[19] O Mosin and I Ignatov, “**Structure and composition of natural carbonaceous fullerene containing mineral shungite**,” *International Journal of Advanced Scientific and Technical Research*, 3(6), November-December 2013, ISSN 2249-9954 (Bulgaria)

[20] MV Charykova et al, "Chemical composition of extracts from shungite and 'shungite water,'" Russian Journal of Applied Chemistry January 2006, 79(1):29-33 ISSN 1070-4272 **DOI: [10.1134/S107042720601006X](https://doi.org/10.1134/S107042720601006X)** Accessed January 6, 2018

[21] EJ Sajo et al, "Antioxidant and Anti-Inflammatory Effects of Shungite against Ultraviolet B Irradiation-Induced Skin Damage in Hairless Mice," Oxidative Medicine and Cellular Longevity August 2017, Article ID 7340143, **<https://doi.org/10.1155/2017/7340143>**

[22] SPTI Kurotchenko et al, "Shielding effect of mineral shungite during electromagnetic irradiation of rats," Bulletin of Experimental Biology and Medicine, November 2003, 136(5):458-459

[23] R Simmons, A Naisha, and R Hazel, The book of stones: who they are and what they teach, Berkeley, CA: North Atlantic Books, 2015

[24] Institut für kinesiologische Pädiatrie (Translation: Institute for kinesiological Pediatrics), Dr. Köhl, Reutlingen

[25] EMF protection shungite radiation from a light switch. March 22, 2016. Accessed September 14, 2017. **<https://www.youtube.com/watch?v=D0qHSD4D7O>**

[26] "This Shungite Plate on Your Phone Will Absorb Harmful EMF Radiation." Waking Times Media. September 23, 2016. Accessed September 14, 2017. **<https://wakingtimesmedia.com/shungite-plate-phone-will-absorb-harmful-emf-radiation/>**

[27] A Turkayeva et al, "Chemical and microbiological nature of produced water treatment biotechnology," International Scientific Conference "Environmental and Climate Technologies," Energy Procedia May 2017, 113:116-120, **[doi:10.1016/j.egypro.2017.04.032](https://doi.org/10.1016/j.egypro.2017.04.032)**

[28] "Treated carbon pulls radioactive elements from water," Science Daily January 2017

[29] A Khannanov et al, "Oxidatively modified carbon as efficient material for removing radionuclides from water," Carbon May 2017, 115:394-401 **<https://doi.org/10.1016/j.carbon.2017.01.025>**

[30] C Ralph, "**[Conductive Minerals and Your Metal Detector](#)**," ICMJ's Prospecting and Mining Journal, August 2014

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