

# What is 5G? How To Protect Yourself from EMF Exposure

Kathryn Kos, M.Ed., NTP



**What is 5G?** As 5G technology starts to roll out across America and the world, concerns are rising as to the safety of these unprecedented frequencies. Today we are exploring all things 5G: what it is, the health concerns associated with it, and things you can do to protect yourself and your family from not only 5G technology but electromagnetic frequencies in general.

## What is 5G, Exactly?

5G is the fifth-generation wireless technology that is currently being rolled out across the globe. This latest ‘upgrade’ is 45 times the frequency of the current 4G model and the wireless data speeds run-up to a gigabit per second. This upgrade means you can load entire movies onto your wireless devices in about 1 to 2 seconds. What it means for our health, however, remains virtually unknown.

The levels of electromagnetic frequencies (or radiation radiofrequency) emitted by 5G technology have never been tested on humans. The studies into EMFs, in general, are in their

infancy stage, no doubt influenced by the substantial monetary incentives that these large tech companies have to promote their new products and innovations.

## What is 5G? Are EMFs Dangerous?

The problem with 5G technology and electromagnetic frequencies, in general, is that the human body itself is an intricate electromagnetic system. Our body's mitochondria, as well as multiple systems, including the nervous system, run on an electrical charge. It's the interaction of these human-made artificial electromagnetic frequencies with our natural frequencies that create disharmony and disease.

Not all EMFs are dangerous, and we *need* certain natural kinds of electromagnetic frequencies to survive. The earth and solar system both have natural EMFs. What renders an EMF "dangerous" depends on a few things.

The **danger of EMFs hinges** on four main pillars:

- Frequency: More energy is carried in higher frequencies, the more energy, the more risk involved
- Strength: The stronger the electric and magnetic fields, the more risk involved
- The density of Power: The more energy cause by electromagnetic waves in a given area, the more risk involved
- Duration of Exposure: the more time spent exposed, the more harm done.

When it comes to 5G we're looking at a *much* higher frequency, operating as high as 90 gigahertz, when all previous generations maxed out at five gigahertz. The rate at which this new technology will operate is unprecedented—effectively turning us into lab rats.

Since 5G towers do not operate at long-range, implementing it will require littering densely populated areas with these towers. This increase in towers will inevitably also mean 5G will increase the duration of exposure, since most workplaces, schools, and city centers, in general, will be flooded with these new 5G towers.

## Health Concerns Associated With 5G

Although there have not been many studies as of yet with 5G, there are *many* studies on the dangerous effects of EMFs.

The unprecedented increase in gigahertz with little to no real exploration into the safety of this technology means that we humans are the testing grounds for 5G. Like so many times before, it seems these multinational corporations would instead ask for forgiveness than permission, rendering the population helpless and often unaware that they are being harmed.

The attack on humans by EMFs mirrors the truly tragic impact that Glyphosate (Roundup) and other pesticides and herbicides have had on the soil of our country, and our health. Were

incessantly being told something is ‘safe’ until we’ve gone so far down the path that people are dying left right and center. Thankfully there are a few things you can do to protect yourself and your family from the harm caused by 5G and EMFs in general.

**Potential health effects include:**

- Oxidative stress
- Headache
- Insomnia
- Immune system dysfunction
- Thyroid Dysfunction
- Infertility
- Blindness
- Deafness
- Fatigue
- Migraines
- Depression
- Cancer

The safety recommendations that do exist are based on 6-foot tall adults and have no consideration for the growing bodies and brains of children or babies. There is no doubt that the technology places a burden on our human health, and unfortunately, it likely won’t be until its ‘too late’ that the science truly catches up to this fact. We’ve seen it time and time again throughout history: “Glyphosate isn’t harmful” ... “trans-fats are healthy”... “sugar is healthy, it’s fat that makes you fat”!

The lies have permeated our society for a long, *long* time, and it’s time we take back our power and preventatively protect ourselves from the dangers of these untested modern innovations.

## **How to Protect Yourself Against 5G**

Unfortunately, the average individual has very little say when it comes to the roll-out of these 5G towers across the developed world. Short of moving off the grid, there are, however, quite a few things you can do to mitigate the harm of EMFs in general.

### **Switch-off 5G on Your Devices**

Other than refusing to purchase 5G devices (which is a great way to ‘vote’ with your dollar), turning off the 5G option may be your best bet. You can log in to your router and switch off the 5G function, and do the same for your smartphones.

### **Airplane Mode**

Other than keeping the 5G function of your cellphone turned off, you might also consider keeping your phone on airplane mode whenever you don’t need it. Be mindful that you cannot make or receive phone calls during this time, but it will protect you from any harmful EMF

interactions. This is a non-negotiable during the night time! Switch it on airplane mode and double-check that the wi-fi and Bluetooth functions are also both off.

### **Get Your wi-fi in Check**

Ideally, your house would be hooked-up to wired Ethernet—but this is not always realistic for every household. The second best thing you can do is to get the wi-fi box as far away from the bedrooms as possible, ideally keeping it in the garage or even a backyard shed. Turning off the wi-fi at night is also a great idea. You can set it up on an electrical timer, so you never forget!

### **Keep Electronics Out Of The Bedroom**

We spend 33% of our lives sleeping, so making sure that the bedroom is an EMF-free zone is key. Be mindful that anything plugged into a socket emits a certain amount of dirty electricity, so opt to have zero electronics in the bedroom. If you do have a TV or other devices in the room, don't just turn them off at night: unplug them.

### **Shield Yourself**

There are various companies that specialize in shielding devices and materials to protect you from EMFs. Note that the best they can do is create a barrier between you and the dirty electricity because canceling it all together generally means the device itself will not work.

With cell phones, for example, there is a mixed consensus on the usefulness of EMF protection cases. Since a cellphone requires these frequencies to work, putting an EMF case around it can often trigger the phone to push out an even greater signal to try and get better reception.

These shielding tools are ideal for placing between you and a laptop or computer. Without one of these EMF blocking shields, best to avoid having any technology placed directly on your body.

### **Distance is Your Friend**

Shields are a great way to protect your body from the harmful impact of EMFs, but realistically the ultimate way is to create distance between you and your devices. Consider keeping the actual EMF-emitting device at least an arm's length away when watching anything on a laptop, phone, or tablet— especially with children.

## **Summary**

The 5G wireless technology that is rolling out across America and the globe is 45 times more potent than our current 4G model. The giant leap in frequency in this untested technology suggests significant problems for our human health since our human bodies operate on its electrical systems.

There are many ways to protect your health from the new 5G technology and EMFs in general. Create distance between you and these devices, turning them off as much as possible (airplane mode, turning off wi-fi at night). Keep electronics out of the bedroom, avoiding ‘smart’ devices as much as possible, and shield yourself.

Although the science is lagging the roll-out of the technology itself, these preventative measures are crucial to avoid being a lab rat, as we have been *so* many times in the past (Glyphosate, trans-fats, the high-sugar/ low-fat movement). We are nature, and so living in harmony with it as much as possible will always breed long term health.

## References

Christ, Andreas, et al. “Age-Dependent Tissue-Specific Exposure of Cell Phone Users.” *Physics in Medicine and Biology*, vol. 55, no. 7, May 2010, pp. 1767–1783., doi:10.1088/0031-9155/55/7/001.

Kivrak, Elfidegizem, et al. “Effects of Electromagnetic Fields Exposure on the Antioxidant Defense System.” *Journal of Microscopy and Ultrastructure*, vol. 5, no. 4, 2017, p. 167., doi:10.1016/j.jmau.2017.07.003.

Kühn, Sven, et al. “Assessment of the Radio-Frequency Electromagnetic Fields Induced in the Human Body from Mobile Phones Used with Hands-Free Kits.” *Physics in Medicine and Biology*, vol. 54, no. 18, 2009, pp. 5493–5508., doi:10.1088/0031-9155/54/18/010.

Mihai, Cosmin Teodor, et al. “Extremely Low-Frequency Electromagnetic Fields Cause DNA Strand Breaks in Normal Cells.” *Journal of Environmental Health Science and Engineering*, vol. 12, no. 1, Aug. 2014, doi:10.1186/2052-336x-12-15.

Muscat, Joshua E. “Handheld Cellular Telephone Use and Risk of Brain Cancer.” *Jama*, vol. 284, no. 23, 2000, p. 3001., doi:10.1001/jama.284.23.3001.

Pall, Martin L. “Electromagnetic Fields Activation of Voltage-Gated Calcium Channels to Produce Beneficial or Adverse Effects.” *Journal of Cellular and Molecular Medicine*, vol. 17, no. 8, 2013, pp. 958–965., doi:10.1111/jcmm.12088.

Pall, Martin L. “Electromagnetic Field Activation of Voltage-Gated Calcium Channels: Role in Therapeutic Effects.” *Electromagnetic Biology and Medicine*, vol. 33, no. 4, Aug. 2014, pp. 251–251., doi:10.3109/15368378.2014.906447.

Pall, Martin L. “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*, vol. 30, no. 2, Jan. 2015, doi:10.1515/reveh-2015-0001.

Pall, Martin L. “Microwave Frequency Electromagnetic Fields (EMFs) Produce Widespread Neuropsychiatric Effects Including Depression.” *Journal of Chemical Neuroanatomy*, vol. 75, 2016, pp. 43–51., doi:10.1016/j.jchemneu.2015.08.001.

Repacholi, Michael H., et al. “Lymphomas in Eμ-Pim1 Transgenic Mice Exposed to Pulsed 900 MHz Electromagnetic Fields.” *Radiation Research*, vol. 147, no. 5, 1997, p. 631., doi:10.2307/3579630.

Schüz, Joachim, et al. “Cellular Telephone Use and Cancer Risk: Update of a Nationwide Danish Cohort.” *JNCI: Journal of the National Cancer Institute*, vol. 98, no. 23, June 2006, pp. 1707–1713., doi:10.1093/jnci/djj464.

“Standards and Guidelines.” *World Health Organization*, World Health Organization, 4 Aug. 2016, [www.who.int/peh-emf/standards/en/](http://www.who.int/peh-emf/standards/en/).

Webb, W. “The Problem with 5G.” *5G Radio Technology Seminar. Exploring Technical Challenges in the Emerging 5G Ecosystem*, 2015, doi:10.1049/ic.2015.0026.

---

### **About Kathryn Kos, M.Ed., NTP**



Kathryn Kos of Primal Musings is a mama of two boys, and two fur babies. She is a Nutritional Therapy Practitioner, and a writer/editor. Her book *Forties on Fire* is available on Amazon. In her own writing, she has recently shifted into the realm of wellness, personal development, and relationships. In her spare time, Kathryn enjoys CrossFit, hiking the high peaks, yoga, and bass fishing with her boys.