Non-Ionizing Non-Thermal Radiation Is NOT Harmless

January 11, 2022

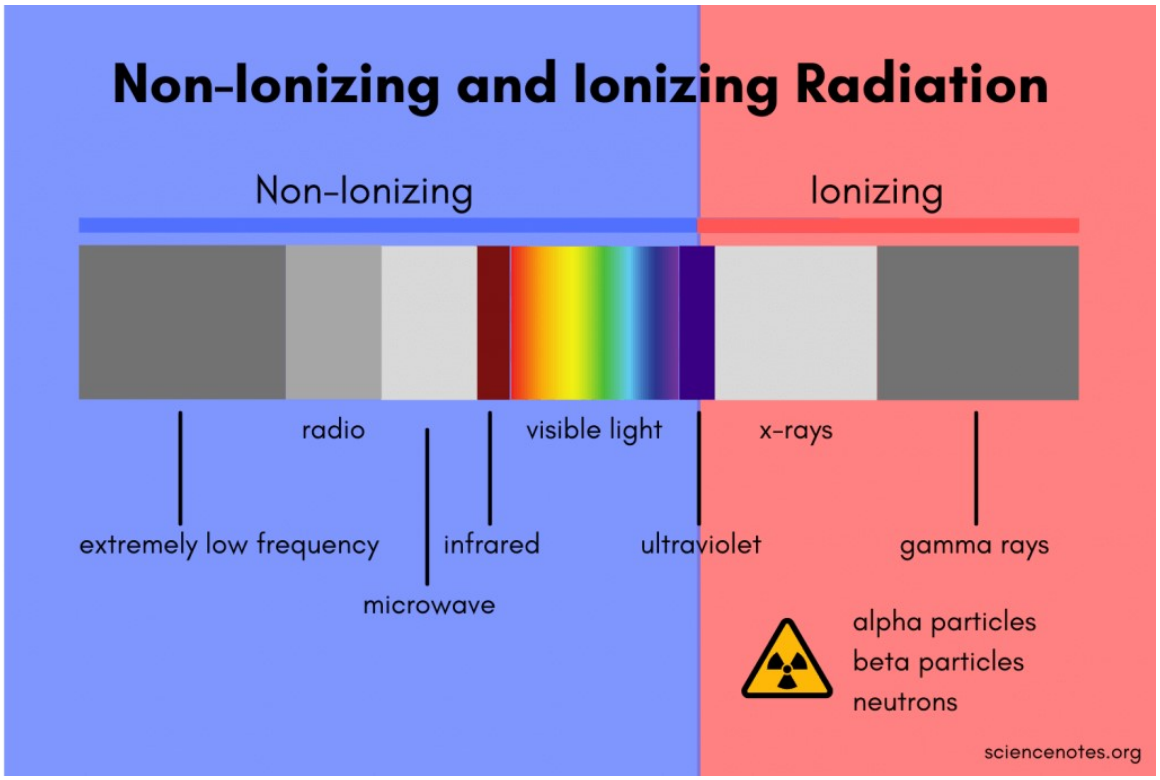
This is part of a continuing series on contemplating not only studies but also logical thinking and the context of history in relation to non-ionizing radiation and health for humans.

One of the most common points of resistance to reducing EMF exposure is the persisting idea that non-

ionizing radiation is not harmful. Some will concede that non-ionizing radiation is only harmful when it raises the temperature of the tissue.

This understanding comes from a combined modern physics and modern allopathic medicine model working together to give birth to an idea that only ionization of atoms or chemical bond breakage can cause disease in animals. They also generally claim that only thermal non-ionizing radiation can have detrimental effects that are solely from heating and not other aspects of the radiation itself.

Modern physicists are focused on the energy and wavelengths not having enough power per photon to cause biological damage.



Modern allopathic medicine trains medical doctors to diagnose disease and so they are focused on whether this type of radiation creates a diagnostic condition shortly after exposure similar to what ionizing radiation does.

The person that makes the claim that non-ionizing radiation is not harmful comes from this type of perspective. But has our knowledge advanced? Does it make sense from a human history perspective to introduce quintillion times more energy in pulsed frequencies to our environment than what occurred on it naturally and then expect that it doesn't affect life on this planet?

If you are reading this and identify with the modern medicine and physics position please hear me out.

THE PROBLEM WITH EMF RESEARCH AND THE ALLOPATHIC MODERN MEDICINE MODEL

Let's address the modern allopathic medicine model first. This model is focused on disease diagnosis rather than optimal health and function. Every prescription is written after a diagnosis of disease or a symptom that someone has. Doctors are trained to diagnose and THEN treat. Most of medical school is learning symptoms in order to give a proper diagnosis of disease and then prescribing the corresponding treatments and drugs. Doctors and nurses learn the physiological mechanisms of those current approved treatments for the specific diseases. Doctors also use labs in combination with symptoms to determine what the diagnosis is. All the focus is put on labeling the patient with a disease so that an approved treatment can be prescribed. If a person has all the symptoms but the labs show up as not reaching the metrics that would allow the diagnosis then there is no diagnosis and no treatment.

This is very common with cancer diagnosis. Labs can be monitored that give clues to cancer forming in the body but until those numbers go past a certain point there is no cancer in this model and there is no treatment for you and "nothing they can do but monitor"... but after you get the correct number for diagnosis then there is magically a treatment available and something for the doctor to do.

The problem with the allopathic model is that it is focused on a point in time when the body has already suffered so much that it is worthy of a diagnosis. What is going on before that point?

In regards to non-ionizing EMF radiation from low to high frequencies there have been thousands of studies that show *correlations* to cancer and even tumor development with exposure. Most studies show that it takes a long time for disease to develop. In the allopathic paradigm short studies are performed and results often show "no effect" because the parameters they are looking for in this paradigm are a diagnosis of a disease... but the problem is that there are many studies that show harmful biological effects from EMFs immediately! These biological effects aren't worthy of a diagnosis of disease in the allopathic model but they ARE in fact causing a shift *away* from normal or optimal function in the human body. This disruption of the norm alone can be detrimental.

Take the visible spectrum of light as an example. This is a non-ionizing and non thermal type of radiation and in that way it is similar to low and high frequency EMF radiation.

Blue light is non-ionizing yet it's very well known and virtually universally accepted that blue light suppresses melatonin and has a profound effect on circadian rhythms. Have you ever tried to sleep with the light on? That can have a huge negative impact on your ability to fall asleep.

Researchers are starting to understand that humans have developed over all of human history without blue light at night. The sun has various spectra of light that are filtered by the atmosphere at different times of the day that communicate with photoreceptors in the skin and our cells that direct what metabolic processes and hormones need to be created at various times of the day.

Similar biological effects are being found from various types of non-ionizing, non-thermal EMF. EMFs acts on voltage gated calcium ion channels and create inflammatory responses because of the calcium flooding into the cells. There is now irrefutable evidence of physiological responses to low frequency electric fields, magnetic fields, and high frequency wireless radiation. The only debate is how it affects us long term and whether it is responsible for the increases in diseases or not. We know that it is detrimental and disruptive to normal function.

We also know that certain frequencies and intensities can be used as therapy in some cases to influence cells in beneficial ways when modulated and dosed properly. PEMF is and FDA approved frequency treatment. It is non-ionizing and non-thermal and has enough of a biological effect to be a treatment for stimulating bone growth and fusing fractures back together when it is used at frequencies that have been studied and shown to do that. If non-ionizing and nonthermal radiation can have an effect on cells to stimulate bone growth then it is interfering with normal biological processes of the body (this time in a beneficial way). Is it too hard to make a connection that it could be used to cause a harmful disruption in the normal healing functions of the body?

If anyone looks into the work of Dr. Martin Pall on voltage gated calcium ion channels they will see one clear mechanism of action that both wireless and low frequency electric and magnetic fields can cause damage and harm normal biological function in the body.

With disease model studies you can see the research from the National Toxicology Program Cell Phone study and the Ramazinni Institute study out of Italy.

I hope this information helps to open the minds of skeptics on this topic to a different perspective than you now have. Intelligent people are always open to new information because we know information is always changing as we discover new data and science progresses. Being skeptical isn't a crime or a bad thing. It's good...but we just need to be open skeptics.

The implications don't mean we have to get rid of all our technology either. It just means we need to be

smarter about how we use it and develop ways to use technology that respects our ancestral heritage as humans with human biology living on this planet with light during the day, darkness at night, varying magnetism throughout the month and seasons, and being nearly completely free of pulsating AC electricity for all of human history up until the late 1800s, less than 200 years ago.

EMF RESEARCH AND MODERN PHYSICS UNDERSTANDINGS

Modern physics has challenges as well. The challenge is mostly related to the collision of physics as a field of study with the allopathic diagnostic medicine model. Physicists must lean on the medical researchers and their studies to determine safety of technology that is produced by engineers in the field of physics and electronic engineering.

I personally think that electrical engineers who work on sensitive equipment have some of the most valuable knowledge to contribute to the understandings of how electrical signals and frequencies can cause interference and dysfunction in biological systems that also run on voltage changes. Circuit boards inside many of our devices and even vehicles are tested extensively in electromagnetic compliance labs for safety on their own. In order to prevent malfunctions in sensitive electrical devices many engineers must incorporate shielding on wires, circuit boards, and device enclosures in order to prevent malfunction. This ensures proper voltages and frequencies are traveling where they need to go in the most pure form possible to prevent malfunctioning or suboptimal functioning.

Think of how complex the biological system like the human body is that runs on voltages and current. Could malfunctions or dysfunctions occur when exposed to foreign electrical signals? Signals that the body was not designed or developed to be exposed to? If the body was thought of more as a delicate and complex electrical wonder much like a super computer perhaps we'd be more careful about our advances in technology from 60 Hz electricity through 2G, 3G, 4G, and now 5G wireless networks.

Speaking of 5G

There is a lot of hype on 5G as well. With this topic it is all about balance and taking a step back to look at things historically and be curious enough to ask questions and look at the research and also take into account the fact that there definitely are special interests that are making trillions of dollars on this technology. Ionization is one way that frequencies on the EM spectrum can do damage and one way of understanding energy's interaction with biological systems.

Our bodies have developed built in processes for dealing with normal/natural ionizing radiation from the sun and we've adapted over thousands or millions of years to deal with these hormetic stressors.

The body has even found beneficial ways to use ionizing radiation...UVB interacts with cholesterol in the skin to form Vitamin D.... near infrared wavelengths activate cytochrome C oxidase to stimulate ATP production in the mitochondria.... wavelengths of natural visible light signal circadian rhythm cues in every cell in the body...there are many more examples as well.

Humans haven't had the same time to develop/evolve physiological responses for the non-ionizing non-thermal mechanisms that cause damage or dysfunction. Also, think about this...radio frequencies emit

24/7 whereas ionizing radiation from the sun disappears at night giving your body a break to repair any damage done from excess exposure to natural ionizing radiation during the day. Furthermore, the infrared wavelengths contained in the sun act as repair agents while ionizing UV is present (https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0625.2005.00397.x). This is the beauty of natural human EMF exposure that is consistent with the history of our environment and exposures on Earth.

Alternating current is also a modern phenomenon humanity didn't have before the late 1800s ...pulsed electricity. We restart hearts with pulses of voltage. Electrodes cause involuntary muscle contractions with micropulses. The earth gives us constant DC WITHOUT the oscillations at 50 or 60 hertz back and forth every second. These oscillations cause contractions and release of calcium into the cells as voltage is detected over the cell membranes and voltage gated channels. This depletes magnesium stores and leaves us deficient and unable to rest when we are surrounded by unshielded 60 Hz electrical wires all night long while we sleep.

In testing over 1500 homes and the body voltage in thousands of beds I have found it's normal for there to be anywhere from 1,000 -10,000 millivolts of pulsed AC electricity on the body plus harmonic and transient frequencies in the kilohertz and megahertz range that ride on the electrical lines of our homes. That's 1,000 to 10,000 times more than all of human history before around the 1940s when residential electrification began to become widespread in the United States.

Back to wireless...5G is using many of the same frequency ranges as 3G and 4G but are simply saturating those further and then also introducing millimeter waves as point to point communication to help increase bandwidth/speed.

WiFi is unnatural and modulated usually at around 10 Hz pulzes at 2.4 GHz. 10 Hz is roughly the same as alpha brainwaves.

In my opinion all AC digitally modulated fields not found on earth before 1888 are unnatural and it makes logical sense for our health as humans to attempt to recreate an environment that our bodies have adapted to live in for thousands or millions of years. If these frequencies have an effect on the peroxynitrite inflammatory responses in our bodies then that is a big deal that can lead to chronic illness and people simply not feeling well.

I don't personally feel that all the studies on cancer deserve the attention that they get. It's interesting and should be studied....BUT once you have cancer the damage has already been done. That's an ending point that develops over years and years. I'm more interested in how exposures ruin people's quality of life. How does it affect sleep, libido, mood, energy levels, etc... general quality of life?

The mechanism of action and the fact that non-ionizing non-thermal radiation does have a physiological effect is absolutely proven with Dr. Pall's survey of over 30 peer reviewed studies. We know unnatural EMFs affect us biologically but scientists are still studying just how they do that and to what extent... cause cancer? (long term studies do show this) cause insomnia? inflammation? permeable blood brain barrier? tinnitis? ('The Frey Effect' - a known syndrome where people can hear radio frequencies and it causes discomfort and annoyance)

There are doctors in Germany that use radio frequencies in the same range as our cell phones to open blood brain barriers of their patients in order to administer medication that needs to pass the BBB (Dr. Henry Lai)

There are MANY correlations but our world is dynamically changing. Many times throughout history we've ignored correlations to our own peril.

Our ancestors relied on those correlations to decide what foods were poison and the ones that weren't. Yes we should pay attention to the science but we shouldn't ignore the multitude of studies that show harmful effects and wait for everyone to agree. The wireless debate and 5G have become a huge controversy and we are at a tipping point in human history. We have the ability to use technology in a safer way. That is what we hope to guide people through and pave the way for with Shielded Healing.

The full home EMF assessments our team performs are an eye opening experience to help uncover what hidden modern stressors are found in the home. Our home build consultations guide people through the process of building from the foundation up with a healthy ancestral EMF environment in mind. This includes modern EMF stressors from wireless, AC magnetic and electric fields, so called "dirty electricity" (transients/EMI), artificial light, and even natural anomalies in the earth's field called telluric currents or geopathic stress.

Hope you've enjoyed this. I will be writing more thoughts on this topic in another follow up article about non-ionizing non-thermal radiation and how to navigate the science and medical literature on this topic.

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