

Physician Heal Thyself – Walking the Talk of EMF-RF

Dr. Caroline Bearss, MA, ND, BBEC

Electromagnetic radiation is a controversial issue worldwide. Various studies globally have identified that extremely low frequency (ELF), radio frequency (RF) and microwave radiation (collectively called electrosmog or electromagnetic radiation – EMR) can negatively affect us over prolonged periods of time (acute exposures are not commonly seen except perhaps occupationally).

Experienced and knowledgeable medical professionals can provide the public with reliable, accurate information about the health risks associated with EMR as well as how to reduce these risks. At the same time, there is also a growing population that is becoming sensitive to EMR. Similar in nature to multiple chemical sensitivities, electro sensitivity presents with a range of physiological reactions to various sources of EMR. Some people are more sensitive to the strong electric and magnetic fields associated with high tension power transmission lines while others are more sensitive to RF from cell towers, cell phones and wi-fi. Reactions can vary from mild to severe and the onset can be slow to abrupt. The slower the onset and the milder the symptoms the more difficult it is to identify EMR sensitivity as the cause. Reported symptoms vary widely and can include:

- Neurological symptoms – headaches, dizziness, disorientation, nausea, tinnitus, insomnia, fatigue, anxiety, irritability, depression, flu-like symptoms, weakness, fever, difficulty concentrating, memory loss, tremors, muscle spasm, restless leg syndrome, muscle and joint discomfort, leg and foot pain, ear discomfort, tingling and numbness in extremities
- Dermatological symptoms – skin itching, burning, tingling, swelling, rashes and facial flushing
- Cardio-vascular symptoms – altered heart rate, arrhythmias, unusual cardiac sensations described as thumping, bounding or pounding, chest pain, chest pressure and shortness of breath not related to exertion
- Respiratory symptoms – asthma, sinusitis, nasal congestion, bronchitis and pneumonia
- Digestive symptoms – nausea, worsening of Candidiasis, irritable bowel and leaky gut symptoms, gluten and dairy sensitivities
- Ophthalmological symptoms – pain or burning of the eyes, unexplained deteriorating vision, pressure in or behind the eye, floaters and/or cataracts
- Immune system symptoms – allergies, increased susceptibility to colds and flues, auto-immune symptoms and diseases
- Miscellaneous – impaired smell, varied GI symptoms, excessive thirst, dryness of orifices, nosebleeds, elevated blood sugar, hypoglycaemia, redistribution

of toxic elements, deteriorating dental amalgams, enlarged thyroid, testicular and ovarian discomfort, and infertility

- More severe symptoms – internal bleeding, unconsciousness, paralysis and seizures
- Exposure tends to exacerbate existing conditions of Lyme, autism and multiple chemical sensitivities and those suffering with these conditions seem to be more susceptible to electro (EMR) sensitivity symptoms

Naturopathic doctors are trained to look up-stream to identify the source of symptoms and dis-ease. The list of symptoms associated with EMR sensitivity are warning signals of biological discord. For example, these symptoms may be signals that the immune system is in a state of allergic response to EMR, in which case prudent avoidance of EMR would be indicated. Undiagnosed EMR sensitivity is an obstacle to cure. The task of avoiding EMR, however, is becoming more and more difficult in a society that is becoming increasingly dependent on electrical devices and wireless technology.

I would like to propose to fellow naturopathic doctors that they look closely at the above list and question whether you notice these symptoms in yourself or in your family members. Include questions about exposure, number of electronic devices in the bedroom and work area, time spent on cell phones or around wireless networks in your intake or in your questionnaire. Then take note of when the symptoms are experienced. Similar to uncovering food sensitivities, this task can be challenging especially if symptoms are mild and the onset of symptoms is not immediate. Identify sources of EMR in your home, office and in public places. When exposed to known EMR sources, tune into how it makes you feel. Next, consider having your home and office inspected by an EMF specialist or building biologist for EMR sources. This is particularly important in your sleeping area which is a critical area of the home to be EMR-free, as EMR has been shown to affect melatonin levels and thus, interfere with sleep and regeneration. Naturopathic doctors can conduct inspections themselves and meters can be purchased at www.safelivingtechnologies.ca. Alternately, EMR inspectors, can be found at www.buildingbiology.net.

By first tuning into these issues ourselves, on a personal level, we will be able to act as agents of education and change in our professional environment. By healing ourselves and our environments we can more clearly understand what is required to help others.

In addition to an EMR inspection of our homes and offices, the following actions can be taken to greatly reduce the controllable sources of EMR in our environments. Please feel free to use this list – what I call an “EMR Cleanse” for yourself, your family and clients.

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EMR Cleanse

Appliances – Extremely Low EMF:

- Inspect your home/office and note all of the electrical devices, tools and appliances – from refrigerators to electric toothbrushes
- In the areas of your home/office where you spend long periods of time, make sure you keep all electrical devices away from you by at least one metre.
- If possible, have an EMF inspection of at least your sleeping area, identifying the specific electrical circuits that elevate your body voltage to above 20 milli Volts (mV) and either install a “demand switch” or “demand remote” to switch these circuits off at night. Switching them off manually each night is also an option.
- If an EMF inspection is not an option, keep all electric devices such as electric clocks, radios, TVs, telephone answering machines, voltage converters and other electrical devices one metre or more from beds; choose battery operated alarm clocks
- Arrange beds away from any major appliances or electrical panel boxes in the bedroom or on adjacent walls
- Avoid the use of electric blankets, heating pads or water beds
- Stand back at least one metre from operating a toaster, electric kettle, electric stove or oven or toaster oven when immediate attention is not required
- Avoid the use of microwave ovens or stand away by one metre when in use
- Cook on rear elements of electric stoves instead of front elements to provide safer distance from source of EMF
- Avoid use of electric hair dryers, especially on children
- Avoid or use extra caution when using electrical appliances when pregnant
- If you choose to use a wireless device, recharge away from the sleeping area
- If possible, sleep on bed systems without any metal and ideally made of natural organic material

Cell Phones, Cordless Phones and Wireless devices – Radio and Micro wave frequencies:

- Limit time spent on cell phones – use speaker phone away from your body; use text messaging over speaking
- Avoid wireless ear attachments such as Blue Tooth – instead use an air-tube headset – the air portion of the wire interrupts transmission of RF to the head
- Use a wired land line for Internet and phone; if not possible, unplug the wi-fi at night
- Strongly discourage children and adolescents from using cell phones
- Limit passenger use of cell phones or similar communication devices in the car to limit exposing others to second hand RF radiation
- Limit the use of other communication devices such as PDA, BlackBerry, Bluetooth and iPhone

- Do not use a cell phone when reception is poor (less than three bars) – to avoid surges of increased power from the device
- Do not carry a cell phone on your person when it is turned on as it will be transmitting signals to the base station – keep it in a separate area – hand bag, backpack, etc.
- Avoid using a cell phone when pregnant or while carrying small children
- Avoid living, working and schools that are within 1.25 km from a cell phone base, tower or antenna
- Use hard-wired baby monitors and security systems as opposed to wireless types
- In the case of high RF readings (greater than 50 uW/m²) in the sleeping areas, consider RF shielding material for canopies and drapes and/or RF film for the windows. In extreme conditions or in cases of extreme sensitivity, with the guidance of a trained specialist, RF shielding paint can be applied to the bedroom walls

Computers:

- Always use a wired internet connection rather than wi-fi
- Never use your laptop computer on your lap while using AC power (while plugged into an electrical outlet) – use battery power instead
- While working on your laptop when plugged in, use a wired extension key board and wired extension mouse
- You can also use a grounded copper sheet or Mu-metal (a nickel-iron alloy that has a high magnetic permeability making it effective in shielding magnetic fields) under your laptop when in use on a table to limit EMF from emanating downwards
- Locate the computer tower, surge protectors, voltage converters, cables and wires as far away from your person as possible – at least one metre
- Do not locate a computer on a common wall with a bed, crib, sofa or reading chair
- Avoid work areas, businesses and public areas that have wireless installations such as wi-fi
- Lobby against the use of smart metres on homes for measuring utility consumption and the use of WLAN (wireless local area network) and Wi-Max (wireless metropolitan area network) in cities
- Upgrade monitors from an old cathode ray tube (CRT design) to a low-emission liquid crystal display (LCD)
- Avoid low voltage lighting, fluorescent lighting including compact fluorescent lights (CFL). Use incandescent or light emitting diode (LED) light fixtures/bulbs. Avoid use of rotary and sliding dimmer switches to control light levels as they are a source of magnetic and radiofrequency fields

As more emerging information comes forth about the electromagnetic world and its biological impacts, it is my hope that as a profession we will become an authority for how we can support and heal those affected by EMR. This journey has just begun, and in the words of Lao Tzu, “the journey of a thousand miles begins with a single step”.

UPDATE

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