



# NAEM

National Association of  
Environmental Medicine





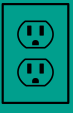
## EMF: Patient Handout

EMF, or Electromagnetic Frequency, exposure is an often unavoidable part of our daily life. While our bodies and the world around us naturally create some EMFs, the levels of our exposure has increased by factor of 1 quintillion (1,000,000,000,000,000 times) since pre-WWI.

EMF sensitivity is a relatively new and growing health concern for many of us. While it impacts everyone, those with higher EMF exposure levels and/or higher toxic loads are typically more reactive. HOWEVER, all of us should be aware of our sources of exposure and minimize or eliminate the source. AVOIDANCE is our best line of defense. Our bodies will thank us!

Importantly, EMF hypersensitivity and complex chronic cases may indicate other exposures and body burden for other toxicants, chronic infections, hormone imbalances, nutrient deficiencies, cell dysfunction, and immune dysfunction. It is very important to work with a trained clinician to help you determine other underlying causes and restore your body to health.

### EMF Sources

				
5G	RF	VLF/EF or MF	ELF/EF or MF	Dirty Electricity
High frequency fields: 5G-60G	Radiofrequency radiation: 3MHz to 300 GHz	Very low frequency electric and magnetic fields	Extremely low frequency electric and magnetic fields	Voltage and current distortions
Located in higher atmosphere but pervasive and still impacts our bodies	Includes radio/ tv antennas, 5G cell towers, WiFi routers, wireless smartphones & tablets, wireless headphones, cordless phones, smart watches, bluetooth devices, and smart meters	Emitted from dimmer switches, compact fluorescent lamps and LED bulbs, variable speed pumps on HVAC systems, swimming pools, and electronic devices	Emitted from electrical wiring, lamps and appliances	In some wiring in homes and businesses that create electric/ magnetic fields that are harmful, especially exposure during sleep

## Points of Increased EMF Exposure

Do you live near:	Does your home have:	Do you frequently use:
Power generating station Electrical substation High voltage electrical lines Radio or cell tower	Power transformer in yard WiFi in home/office 'Smart' appliances Alexa-type devices Smart meter near your bed Electrical panel near your bed	Cell phone Laptop or tablet on lap Wireless earbuds Smart watch LED bulbs, dimmer switches Electric induction stove Wireless hearing aids

## Potential Symptoms

Sleep disturbance/insomnia Headache Depression/depressive symptoms Fatigue/tiredness Concentration/attention dysfunction Memory changes Dizziness Tinnitus Irritability Loss of appetite/body weight Restlessness/anxiety/hyperactivity	Nausea Skin burning/tingling Heart rate variability, dysregulation, palpitations Numbness and tingling of hands and arms when using wireless mouse or computer Headache or ear pain when using cell phone Numbness, tingling in hand when holding a cell phone that is in use Symptoms when in proximity to: fluorescent lamps and/or CFL bulbs, appliances with motors,
---	--

## EMF Treatment

In addition to working with a trained clinician, there are some things you can do on your own:

- Grounding - spend time barefoot outdoors daily to help reset your electrical balance
- Yoga / deep breathing / meditation
- Infrared sauna
- Massage / lymphatic therapy - dry brushing

## EMF Avoidance

### #1 Create a Sleep Sanctuary

Sleep is essential to healing. Minimizing or eliminating EMF exposure at night allows your body to reset and strengthens its ability to manage EMF exposure during the day. You spend a third of your time sleeping so invest some time in making it a safe, nurturing environment.

- Minimize all sources of light, especially blue (electronic) light, so you sleep in the dark.

- Put in timers or switches that allow you to shut off WiFi and other sources of EMFs while you are sleeping.
- If you use your wireless phone as an alarm, move it to airplane mode which turns off both cellular and bluetooth exposure.
- Avoid having any laptops, tablets or e-reader devices in room unless powered down.
- If you have an electrical panel or smart meter outside the bedroom, add a shielding product. See resources below: [Safe Living Technologies](#).
- Invest in quality bedding made with natural materials such as cotton. Avoid memory foam as it off-gases toxic chemicals.
- If you need a new mattress, look for one not treated with chemicals to minimize off-gassing that adds to your overall toxic load.

### Clinical Pearl For Sensitive Individuals

For some people, creating a sleep sanctuary above is NOT enough. Even if you turn your WiFi off and other EMF sources at night, your bedroom may still have high EMF due to neighbors' WiFi, nearby cell towers or other external sources. NAEM recommends using an EMF and RF meter to test your bedroom's levels. If the RF measures above 10,000 uW/m<sup>2</sup> (or lower for very sensitive patients) then we would suggest using a properly grounded [bed canopy](#) to lower your RF exposure while sleeping. [Shielding paint](#) is also recommended for higher exposure as it reduces resonance. Please check with your clinician to see if they have an EMF/RF meter for you to borrow. There are also EMF consultants listed below in resources, who can help you determine the best solution for your needs.

## #2 Reduce your daytime EMF exposure

- Use speaker phone when talking. When not in use, keep device 10- 15 feet from body or put in airplane mode if device is near the body.
- Relocate WiFi routers away from primary living areas, desks and bedrooms.
- Avoid having any cordless phones in home.
- Hardwire internet connections.
- Minimize the use of wireless earbuds or earphones.
- Limit screen time and use appropriate blue light shielding apps on devices and eyewear.
- Avoid use of sources of dirty electricity: compact fluorescent, fluorescent or LED bulbs, dimmer switches, and appliances that use variable speed pumps. LED non-dimmer bulbs are the best option along with halogen incandescent bulbs.
- Use EMF Harmonizers
  - For personal, home and car EMF "harmonizers", the company [EMF Solutions](#) offers remediation products for cell phones and other wireless devices. Clinically these products have been shown to provide relief for some people with EMF sensitivity.
  - Importantly, there are many in the marketplace that have not been objectively tested. More research and testing labs are needed.

## EMF Additional Resources

If you still have symptoms, measuring current EMF exposure levels can help you create an avoidance and shielding plan. The following are the *ideal goals* for EMF readings based on sensitivity:

	RF Exposure	Electrical Fields	Magnetic Fields	Dirty Electricity
Typical Patient	<10 uW/ m2	<5 V/m daytime <1 V/m nighttime	<1 mG	<200 Graham-Stetzer units or <240 mV
More Sensitive Patient	<1 uW/ m2	0.01-0.1 V/m	<0.1 mG	<50 Graham-Stetzer units or <60 mV

Meters for electrical, magnetic and radiofrequency exposure:

- Option 1: Measures all three fields. Good for most occasions.
  - [Cemprotec 34](#) - measures all three fields: electrical, magnetic and radiofrequency.
- Option 2: Use two meters. RF meter is significantly better for testing high RF exposure.
  - [Tri-Field EMF meter Model TF2](#) - best for measuring electrical and magnetic exposure.
  - [Safe and Sound Pro II RF Meter](#) - best for measuring higher RF exposure.
- Dirty Electricity: the [Stetzer meter](#) is most accurate and recommended

Shields, Bed Canopies and Meters for Personal and In-home EMF Remediation:

- [Safe Living Technologies](#): remediation/protection technologies (bed canopies, etc.)
- [Shielded Healing](#): meters and filters
- [Less EMF](#): meters, shields and protective clothing
- [Shield Your Body](#): phone pouches, canopies
- [Tech Wellness](#): screening tool for internet/tech addiction, best air tube headsets
- [Earthing Harmony](#): earthing sheets made of cotton for grounding
- [Stetzer Electric](#): meters for dirty electricity and filters
- [EMR Shielding Solutions](#): meters, shielding products, paints
- [EMF Solutions](#): harmonizers for personal, home, and car devices

Advanced Home Remediation and Consultants for EMF Exposure:

- [Safe Living Technologies](#)- Engineers providing affordable instrumentation (meters) to measure in-home and office exposures, and valid remediation/protection technologies.
- [Building Biology Institute](#)- Building biologists who have expertise in EMF exposure and mitigation, as well as referral resource for experts in remediation materials and protection technologies.
- [Jeromy Johnson](#)- Engineer who does personal consultations for hard wiring Wi-Fi connections in the home.

EMF Policy, Research and Advocacy:

- [Bioinitiative Report](#): considered the international repository for all of the basic information on health effects of EMF/EMR.
- [Environmental Health Trust](#): resource for information, policies and science studies/graphics
- [Americans for Responsible Technology](#): Information "toolkit" with resources on 5G studies, legislation/resolutions and sample letters/graphics and lobbying basics.