

Electrical Sensitivity – Illness and Recovery

by Diane Craig (currently recovering from symptoms described as
“an autoimmune response partly triggered by manmade EMFs”)

Electromagnetic fields (EMFs) are everywhere. Naturally-occurring EMFs make life on earth possible. People and animals have energy fields. Manmade EMFs at higher energy levels have increased rapidly.

Like other substances, EMFs are potential stressors that can affect us. The effects can be beneficial (as when EMFs can stimulate the healing of bones), or benign (not perceived), or harmful. EMF stressors can be 24/7 (for example, from pulsed smart meter transmissions), intermittent (for example, from cell phone use), or rare. Negative EMF health effects can range from minimal to profound. EMF health concerns are not new - eg, Robert O. Becker, MD's book, The Body Electric, ©1985. Today, EMF health concerns are related to **radio frequency radiation**, **dirty electricity**, and **magnetic fields**. Overview:

EMF Type	Began	Cycles/second (Hertz, or Hz)	Nature of Cycles	Measurement	Other Information
Schumann resonance, fundamental (Direct current)	(Earth created 4.5 billion years ago)	7.83 Hz	Global Regarded as beneficial.	Global	Earth's molten magnetic core creates the magnetic field that surrounds earth and protects it from cosmic radiation.
Schumann resonances, 8 intervals (Direct current)	See row above	14.3, 20.8, 27.3, 33.8... up to 60 Hz	Local or global	Local or global	Lightning strikes influence the Schumann resonances. Do human inventions also contribute?
Electricity (Alternating Current)	1879 (Edison's light bulb)	60 Hz	regular sine wave.	Magnetic Fields are measured in Gauss units	Concerns: effects of high voltage overhead lines (HVOLs), other cumulative magnetic field exposures (eg in homes and offices).
Dirty Electricity , result of AC-to-DC conversion	...	60 Hz contaminated with ----->	chaotic High Frequency Voltage Transients (HFVT)	Measured in GS units [HFVT rate of change]	Book, <u>Dirty Electricity</u> by Samuel Milham, MD, MPH, available at Amazon or http://www.sammilham.com/
Radio frequency radiation (RFR) fields	Recent	3,000 Hz to 300,000,000,000 Hz (USA)***	Pulsed (digital). Radiate outward.	Power density measured in milli-Watts per meter squared.	Video, <u>Take Back Your Power</u> (re: smart meters; transmit ~13,000 times/day), www.takebackyourpower.net

*** 1kHz = 1 thousand Hz. 1MHz = 1 Million Hz. 1GHz = 1 Billion Hz.

Magnetic fields occur whenever electricity flows. Sources included power lines, electrical wiring and cords, computers, TVs, monitors and motors in both small and large electric appliances.

Dirty Electricity (also called HFVT) results when electronic devices convert electric alternating (AC) power to direct (DC) power. Quoting Samuel Milham, MD, MPH, “High frequency voltage transients

found on electrical wiring, both inside and outside buildings, are caused by an interruption of electrical current flow” (Dirty Electricity, page 57). HFVT also flow along outlets and electronic devices. HFVT health-effects reported at <http://www.stetzerelectric.com/category/research/> include increased cancer risks. Electronic-devices creating dirty electricity include computers, printers, phone chargers, low voltage lighting, dimmer switches, compact fluorescent light (cfl) bulbs, digital meters, and smart meters.

Radio frequency radiation fields radiate outward in a pulsating pattern. The technologies that use RFR include wifi, cell phones, remote (cordless) phones, satellite TVs, microwave appliances and transmitters (cell towers and antennas), Blue Tooth, radar, smart meters and “smart appliances.”

RFR is “non-ionizing” (this means energy excites electrons but doesn't remove them from an atom or molecule). The boundary between ionizing (heat-producing, cell-damaging) and non-ionizing radiation is fuzzy. Sufficient exposure to non-ionizing radiation (a matter of frequency, duration and intensity) may trigger an immune or other response. Non-ionizing radiation-producing devices are not required to be shielded. For concerns, see [International Commission for Electromagnetic Safety Monograph](#) [1], [the Bionitiative 2012 Report](#) [2], and [The American Academy of Environmental Medicine's letter](#) [3].

What is electrical sensitivity (ES)? Per Wikipedia, ES is “idiopathic (unknown cause) environmental intolerance attributed to electromagnetic fields” (10/13). ES is controversial. Some researchers report no correlation between symptoms reported by ES individuals and laboratory EMF exposure. See, however:

- [Dietrich Klinghardt, MD, PhD](#), discusses “Smart Meters & EMR – the Health Crisis of Our Time” [4]
- [An independent double-blind study](#), shows “evidence for a novel neurological syndrome” [5]
- [Magda Havas, PhD](#), calls ES “rapid aging syndrome” [6]
- [WHO](#), concludes that ES “symptoms are certainly real” and that ES “can be a disabling problem” [7]

What are electrical sensitivity symptoms? People report primarily neurological, cardiological and/or gastrointestinal symptoms, but other systems may be affected. One smart-meter symptoms list [here](#) [8].

How can individuals with ES recover? At www.electricsense.com, Lloyd Burrell and others with ES share that ES symptoms can go away in consistently low-EMF environments. They:

- **Eliminate or avoid the trigger.** Eg: replace smart meters with analog meters (decreases RFR and HFVT); replace clock radios with battery-operated clocks (reduces magnetic fields); replace cfl with incandescent bulbs (decreases HFVT); turn wifi and Blue Tooth to off (reduces RFR).
- **Protect** from nearby EMFs that can't be eliminated or avoided. Eg: shield one's property or body from cell phone tower and smart meter RFR; reduce HFVT in electric lines with Stetzerizer™ filters; measure RFR, HFVT and magnetic fields to monitor exposures. One comprehensive shopping resource is www.lessemf.com.
- **Strengthen** to become more resilient. Examples: practice prayer, meditation, stress reduction, yoga, etc.; work with medical practitioners trained in energy-related healing; healthy habits.

Caution: People with ES who reverse their ES symptoms in a low-EMF environment still have ES. Continued attention to maintaining a low-EMF environment is advised.

[1] "Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter," <http://www.icems.eu/papers.htm>

[2] "Rationale for Biologically-Based Exposure Standards for Low Intensity Electromagnetic Radiation," <http://www.bioinitiative.org>

[3] "To the FCC regarding the need to limit RFR transmissions," <http://aaemonline.org/images/FCCLtr.pdf>.

[4] <http://www.youtube.com/watch?v=PktaaxP17R1&list=FL2RBBTPr5SQ94YjtMPGIutw&index=92>.

[5] <http://www.ncbi.nlm.nih.gov/pubmed/21793784>

[6] <http://www.magdahavas.com/rapid-aging-syndrome-pemf/>

[7] <http://www.who.int/peh-emf/publications/facts/fs296/en/>

[8] http://origin.library.constantcontact.com/download/get/file/1114179096387-20/smart_meter_flyer_august_2013.pdf

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