



Association pour la santé environnementale du Québec
Environmental Health Association of Québec

How to cope with EHS

November 2019

**Association pour la santé environnementale du Québec / Environmental Health Association of Québec
(ASEQ-EHAQ)**

C.P. 364, Saint-Sauveur, Québec J0R 1R0 / P.O. Box 364, Saint-Sauveur, Québec J0R 1R0

☎ 514-332-4320 ☎ 450-227-4143 office@aseq-ehaq.ca

www.aseq-ehaq.ca / www.Environmentalsensitivities.com / www.ecoasisquebec.ca



Technology is in constant evolution. As such, we are now exposed to ever increasing levels of electromagnetic fields. Electromagnetic hypersensitivity (EHS) is an escalating syndrome that results from exposures to human-made electromagnetic fields (electrical installations/equipment and wireless technology). Of particular concern are radio ('high') frequency radiations (RFR), emitted by cell or mobile phones and other wireless transmitting devices (WTDs) – including cordless phones and Wi-Fi. These radiations are skyrocketing, due to the extremely rapid advances and dissemination of RFR-related technologies. For example, a few years ago, we passed a threshold, where there were more cellphones than people on Earth (Davies Boren, 2014).

Electromagnetic fields (EMF) are invisible, but they exist and have real, negative effects on our health. Although science is challenged by the rapid obsolescence of RFR technologies, which restricts the amount of data on human exposures, an extensive review of studies and most recent research have brought to light and confirmed these detrimental effects, such as biological, reproductive, developmental, carcinogenic and toxicant potentiation (e.g.: Miller et al., 2019; PCN, 2019). And now, the peaking, new generation 5G technologies, emitting millimeter (much higher frequencies) along with microwaves radiations, are adding more health concerns (Moskowitz, 2019). It is therefore necessary to reduce exposures. We have technology and ways to detect and eliminate, or at least, reduce these harmful radiations.

Electromagnetic hypersensitivity (EHS) has been studied for more than two decades in Sweden – where it is, in fact, recognized as a disability (e.g.: Johansson, 2006). These early studies, and recent ones (e.g.: Blank, 2014; Davis, 2013; Héroux, 2016; Milham, 2012; Singh & Kapoor, 2014), along with [medical expertise](#) (e.g.: AMA, 2012) and numerous patients' testimonies (e.g.: Ladberg, 2010), urge for precaution in regards to EMF exposure.



Diverse electromagnetic triggers have been linked to this condition (EHS):

RFR:

Radars (or other parabolic antennas)
Mobile phones towers
Wi-Fi (internet)
Bluetooth (internet)
Smart meters
Cell, mobile and cordless phones
Tablets and pads
Computers (including portable)
TV and radio

Electrical:

Power and transmission towers and lines
Transformers
Railway and tramway lines
Wiring and panels
Appliances
Lighting devices
Motors

These installations, devices, products and appliances are present everywhere in our environment. However, certain precautions and solutions exist, to safeguard or improve our health.

Creating safer environments: precautions and solutions

To begin with, it may be necessary to carry out an assessment of the electromagnetic fields (EMF) inside your home. Certain companies can do such an assessment and advise how to reduce the EMF in your home. The sources of emission inside your home have to be identified. This can be done by using a meter, which measures electromagnetic emissions or waves. Certain symptoms of EHS can be highly attenuated by staying away from the source(s) of EMF. However, it is necessary to also reduce to a minimum the electromagnetic pollution where you live.

1. Home:

- It is preferable to live more than one kilometer away from a high voltage electrical power line (aka, 'walkers'), and 10 times that distance from a cellphone tower. Distance from a transformer and from 'street' lines should be more than 200 meters;
- In your home, electrical panels should be *shielded*, and distance from them should be more than 5 meters;
- A specialist can measure the EMF in your home and advise accordingly, along with checking the electrical wiring and connections. He may find some



- electrical issues: for instance, wiring problems, stray current or bad grounding, and apply the necessary corrective measures;
- If your home has a smart meter, *opt-out* (this is critical, especially if located indoor). If located outdoor (and opting-out isn't possible), it should be at least 40 feet away;
 - Lighting:
 - o Avoid halogen lamps, since most are transformers-built-in and unearthed, and emit high EMF;
 - o Avoid low-energy bulbs (fluorescent, or CFL), since they contain toxic mercury and also emit high EMF;
 - o Instead, use incandescent light bulbs (low EMF) – the good old-fashioned ones, that emit a yellowish light and can be dimmed;
 - o Avoid 'blue-light' (most screens) at night, or at least 2 hours prior to sleep, since it 'damages' sleep (disrupting the body's natural/biological clock, the circadian rhythm).

2. **Wireless transmitting devices (WTD):**

Here are some solutions to eliminate WTD (WEEP, 2019):

- Cell phones = *Use a land line*. You may want to keep one cell (off) in your glove compartment for emergencies only. Otherwise, avoiding the use of cellphones will reduce drastically the EMF in your environment;
- Cordless phones = *Use corded phones* instead (speaker phones emit even less EMF);
- Wireless internet and Bluetooth systems = *Hard wire it*. This means wiring not only the connection, but also keyboards, mouse, printers, headsets, gaming consoles, etc. Also, avoid Wi-Fi areas as much as possible;
- Wireless baby monitors = *Use a corded, plugged-in, sound-activated model* and keep it well away from your baby.

Here are some solutions to reduce the RF emitted by WTD (PCN, 2019):

Distance is your friend! – When using a wireless device, keep your distance: for example, keep the cellphone away from your body (e.g.: not in your pocket);

Be savvy! – Use wireless devices strategically to reduce emissions and exposures:



for example, use only when the signal is strong, turn-on airplane mode, make brief calls, use a wired headphone, turn the wireless "off" for sleep, allow no cells for children...;

Keep it low! – Choose a low SAR (Specific Absorption Rate), efficient device: for example, find an adequate model, make sure of an optimal battery charge, and refrain from or deactivate the Bluetooth.

3. **Bedroom:**

- Sleep away from high EMF areas, such as the house power main and operational appliances (like refrigerator and freezer);
- There should be no Wi-Fi nor electronics in the bedroom (EMF disrupt sleep). Do not use a cell phone nor an iPod as an alarm clock: instead, use a battery powered clock;
- Electrical appliances should be avoided, or at least, turned-off and unplugged. Ideally, all electrical power should be shut-off in the bedroom while sleeping;
- Refrain from using electrical heating blankets or pads, and use hot-water bottles instead;
- Sleep with your head away from electrical outlets and as far as possible from electrical appliances (unless turned-off and unplugged), such as side-bed lamps;
- A bed (spring-box and mattress) without metallic parts is preferable, since metal is a transmitter of electricity/reflective of EMF. Also, it is best to keep metallic objects (such as lamps, tables, decoration, etc.) away from your bed;
- If you live in an apartment, avoid placing your head along the wall which is common with your neighbours.

4. **Electrical equipment**

- Place kitchen and laundry appliances on outside walls;
- Avoid stacking electrical appliances, as this increases EMF;
- Avoid staying near or for too long close to an electrical appliance (especially around the bed, the office or the kitchen). This stands true for less 'obvious' yet high EMF sources, such as furnaces, water heaters and pumps, radiant heating systems, etc.;
- Avoid using a microwave to heat your food;



- If possible, avoid using induction stoves, air conditioning units, and hair dryers;
- Unplug all electrical equipment when not in use. Even when turned off, it can still conduct 'dirty electricity' from power surges and bring it closer to you;
- Use overhead lighting or place lamps at a distance from where you will be sitting;
- If necessary, refrigerators can be put on timers, so they run periodically to maintain their temperature but don't have current running to them constantly;
- Some people turn the power off in their homes for short periods, to give their body a break.

5. **Electronic equipment:**

- Follow all of the above (#2) wireless transmitting devices (WTD) tips;
- Turn-off (and if possible, unplug) all electronic equipment (computer, printer, TV, DVD player, sound system, etc.) when not in use;
- Sit as further back and away as possible from your computer screen monitor (or others');
- If possible, use EMF filters and a 'blue-light' shields for all screens;
- Connect your laptop to an earthed outlet and do not place it on your 'lap'.

6. **In the car:**

- Sit as further back as possible from the engine;
- Do not use a GPS;
- Avoid using wireless devices (like a cell phone), because radiation is amplified and reflected back at you by the metal structure;
- Avoid being too close to the onboard DVD player and sound system (or disconnect those, if possible). The same applies to air conditioners and heaters inside the car, which use should also be limited.

7. **Your body**

- Avoid wearing metal on your body (jewellery, ornaments, eyewear, key holders, etc.), and keep away from metallic furniture;
- Only submit yourself to X-rays, MRI's or CT scans in emergency situations;



- If possible, have your mercury amalgams safely replaced (eco-dentist) and detoxify your body from heavy metals under the supervision of a recognized professional;
- At work, take frequent break away from electromagnetic sources;
- Indoors, there is usually a greater electromagnetic pollution. As such, getting outside more often (in the proper setting, i.e. away from triggers) will help you immensely;
- Spend time in nature – a forest, a lake, a beach, even a park: it is soothing and healing (negative ions in nature are beneficial to our health and mood). If possible, walk barefoot on the soil (natural), as this practice ('grounding') helps your body rebalance according to the electromagnetic field of the Earth.



In a snapshot...

Tips on how to best manage EHS:

- Precaution and prevention are the most efficient solutions;
- Carry out an assessment of the EMF inside your house (you may call a specialist);
- Avoid or reduce as much as possible your contact with EMF, taking into consideration:
 - your home in general (its location, wiring and lighting);
 - the necessity to eliminate or reduce drastically radiation (RFR) from wireless transmitting devices (WTD);
 - the importance of a safe electro-sanitized bedroom;
 - the do's and don'ts regarding electrical and electronic equipment;
 - precautions to be taken in the car;
 - tips to protect and heal your body.
- Reorganize work (at the office or at home) to create a reduced EMF environment.



References

Austrian Medical Association (AMA), 2012. *Guideline of the Austrian Medical Association for the Diagnosis and Treatment of EMF-related Health Problems and Illnesses (EMF Syndrome). Consensus Paper of the Austrian Medical Association's EMF Working Group*. Online: <http://www.ehsf.dk/dokumenter/7810-Austrian-EMF-Guidelines-2012.pdf>

Blank, Martin (PhD), 2014. *Overpowered: The Dangers of Electromagnetic Radiation*. New York: Seven Stories Press.

Davies Boren, Zachary, 2014. "There are officially more mobile devices than people in the world". *The Independent*, Oct. 7th, 2014: <https://www.independent.co.uk/life-style/gadgets-and-tech/news/there-are-officially-more-mobile-devices-than-people-in-the-world-9780518.html>

Davis, Devra (PhD, MPH), 2013. *Disconnect: The Truth About Cell Phone Radiation*. Environmental Health Trust.

Héroux, Paul (PhD, McGill), 2016. « Comment les champs électromagnétiques très faibles peuvent-ils influencer la biologie et la santé? ». Conference at Ecosphere, Montreal, August 13, 2016 ('Maison saine'): <https://maisonsaine.ca/zone-video/comment-de-tres-faibles-champs-electromagnetiques-peuvent-ils-influencer-la-sante.html>

Johansson, Olle, 2006. "Electrohypersensitivity: state-of-the-art of a functional impairment". *Electromagnetic Biology and Medicine*, **25**(4): p. 245-258.

Ladberg, Gunilla, 2010. *Forced to Disconnect: Electrohypersensitive fugitives in Sweden*. Gunilla Ladberg Pedagogik & Språk.

Milham, Samuel (MD, MPH), 2012. *Dirty Electricity: Electrification and the Diseases of Civilization*. Bloomington: iUniverse Star.

Miller et al., 2019. "Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices". *Frontiers in Public Health*, **7**(223): <https://www.frontiersin.org/articles/10.3389/fpubh.2019.00223/full>

Moskowitz, Joel M., 2019. "We have no reason to believe 5G is safe". *Scientific American*, October 17th 2019: <https://blogs.scientificamerican.com/observations/we-have-no-reason-to-believe-5g-is-safe/?amp>



Prevent Cancer Now (PCN), 2019. “Minimize Exposure to Radiation From Wireless Communications”. *Prevent Cancer Now*: [http://www.preventcancer.ca/main/wcds/Reminder on RFR \(2-pager\):
<http://www.preventcancer.ca/wp-content/uploads/2014/06/2pger.pdf>](http://www.preventcancer.ca/main/wcds/Reminder%20on%20RFR%20(2-pager).pdf)

Singh, S. & N. Kapoor, 2014. “Health implications of electromagnetic fields, mechanisms of action, and research needs”. *Advances in Biology*, Art. ID 198609, 24 p.:
<https://www.hindawi.com/journals/ab/2014/198609/>

Other resources:

Elöverkänsligas Riksförbund (EHS foundation, Sweden), 2019. Online: <https://eloverkanslig.org/>
See on their site “Wireless wake-up call”, by Jeremy Johnson, Ing. (TEDxBerkeley Conference):
<https://eloverkanslig.nu/video/tedx-jeromy-johnson.html>

Fauteux, André, 2016. « Champs électromagnétiques en nos demeures, trucs et astuces ». Conference at Ecosphere, Montreal, August 13, 2016 (‘Maison saine’):
<https://maisonsaine.ca/zone-video/champs-electromagnetiques-en-nos-demeures-trucs-et-astuces.html>

Fauteux, André, 2013. « Champs électromagnétiques : douze façons de se protéger ». *La Maison du 21^e Siècle : Saine et Écologique*, June 2nd, 2013 :
<https://maisonsaine.ca/actualites/champs-electromagnetiques-douze-facons-de-se-proteger.html>

Locations of cell towers in Canada – *interactive map*:
http://www.ertyu.org/steven_nikkel/cancellsites.html

Philips, Jean & Alasdaire, 2017. *Your Low EMF Home* (UK):
<https://www.powerwatch.org.uk/library/downloads/low-emf-home-3-lighting-2017-11.pdf>

Terre Vivante, 2019. « Moins de pollution électromagnétique dans votre chambre à coucher ». *Terre Vivante, l'écologie pratique* :
<http://www.terrevivante.org/199-protegez-votre-sommeil.htm>

WEEP, 2019. *Living with electrohypersensitivity: a survival guide*. WEEP: The Canadian initiative to stop wireless, electric and electromagnetic pollution:
<http://www.weepinitiative.org/livingwithEHS.html>