

About EHS

EHS can manifest as sensitivity to ELF-EMF (electric and magnetic fields, and 'dirty electricity', originating from the electricity grid and electrical equipment), to RF-EMF (radiation from all kinds of wireless technology), or to both.

EHS symptoms: EMF can cause a whole range of symptoms, indicating that it affects multiple bodily systems. Short-term symptoms vary from headaches, dizziness, concentration and memory problems, to strong fatigue, sleep problems, skin rashes, tinnitus, heart palpitations, flu-like symptoms, digestive problems and more. These symptoms can be severe and debilitating. Prolonged exposure can certainly lead to a deterioration in health.

Many people with EHS have self-diagnosed. Time and again, they find that avoiding and limiting exposure helps. The symptoms then disappear. But in this world, which is so digitally connected and full of electricity, it is difficult to lead a normal life. A lot can be done by keeping distance from sources, by shielding against high-frequency interference, the electrical system can be modified (shielded cables, mains-isolated switches, separation of 'dirty' and 'clean' circuits, installation of filters, use of direct current) and getting rid of all harmful electrical appliances. But those are just the technical adjustments – they're costly. It is even more difficult to deal with the widespread scepticism, and often the lack of any form of support that would otherwise be customary. People are thus excluded and left to fend for themselves. The burden of scientific proof regarding the existence of their condition is placed on the vulnerable individual.

Estimates of how many people are affected can be found in *The Prevalence of People With Restricted Access to Work in Man-Made Electromagnetic Environments* by Michael Bevington DOI:[10.15436/2378-6841.19.2402](https://doi.org/10.15436/2378-6841.19.2402):

"in addition to subconscious sensitivity, the prevalence of IEI-EMF/EHS is between about 5.0 and 30 per cent of the general population for mild cases, 1.5 and 5.0 per cent for moderate cases and < 1.5 per cent for severe cases. The prevalence of people restricted in their access to work in a man-made electromagnetic environment is estimated at 0.65 per cent of the general population, at about 18% of the general population with moderate IEI-EMF/EHS."

What do we know about the physical mechanisms underlying EHS?

The World Health Organisation recognises EHS as a self-reported condition, but emphasises that there is insufficient scientific evidence to classify it as an official medical diagnosis. Most studies done focus on the EHS individual and their behaviour. Nevertheless, an increasing number of studies carried out over the past decade point to a physical basis for EHS.

See *Reliable disease biomarkers characterizing and identifying electrohypersensitivity and multiple chemical sensitivity as two etiopathogenic aspects of a unique pathological disorder* by Dominique Belpomme, Christine Campagnac and Philippe Irigaray DOI:[10.1515/reveh-2015-0027](https://doi.org/10.1515/reveh-2015-0027)

Irigaray and Belpomme also found a high percentage (~80%) of EHS self-reporting patients with increased OS in their peripheral blood in: *Oxidative stress in electrohypersensitivity*

self-reporting patients: results of a prospective in vivo investigation with comprehensive molecular analysis. *Int J Mol Med.* (2018) 42:1885–98. doi: 10.3892/ijmm.2018.3774

See also Yael Stein MD, Iris G. Udasin MD - Electromagnetic hypersensitivity (EHS, microwave syndrome) – Review of mechanisms – 2020 - doi

<https://doi.org/10.1016/j.envres.2020.109445>

This international consensus report pleads for the acknowledgement of EHS as a distinct neuropathological disorder and for its inclusion in the WHO International Classification of Disease: .The Critical Importance of Molecular Biomarkers and Imaging in the Study of Electrohypersensitivity. A Scientific Consensus International Report. *Int. J. Mol. Sci.* 22, 7321. by Belpomme, D., Carlo, G.L., Irigaray, P., Carpenter, D.O., Hardell, L., Kundi, M., Belyaev, I., and many others, 2021. <https://doi.org/10.3390/ijms22147321>.

See also Electro-hypersensitivity as a Worldwide, Man-made Electromagnetic Pathology, by Belpomme, Dominique & Irigaray, Philippe. (2022). [10.1201/9781003201052-11](https://doi.org/10.1201/9781003201052-11).

It is also thought that EHS may have a genetic cause, as the detoxification process is disrupted in many people with EHS. See Metabolic and Genetic Screening of Electromagnetic Hypersensitive Subjects as a Feasible Tool for Diagnostics and Intervention by Chiara De Luca and others <https://doi.org/10.1155/2014/924184>

And see the pilot study Skin Fibroblasts from Individuals Self-Diagnosed as Electrosensitive Reveal Two Distinct Subsets with Delayed Nucleoshuttling of the ATM Protein in Common by Laurene Sonzogni and others <https://doi.org/10.3390/ijms26104792> All of the EHS group in this study turn out to be radiosensitive to X rays with a delayed DNA repair.

This study could also provide a lead for a mechanism underlying EHS: .Hypothesis: ultrasonography can document dynamic in vivo rouleaux formation due to mobile phone exposure by R.R. Brown <https://doi.org/10.3389/fcvm.2025.1499499>

Diagnosing and treatment

The primary method of treatment when EHS should mainly focus on the prevention or reduction of EMF exposure, that is, reducing or eliminating all sources of high EMF exposure.

EUROPAEM, a consortium of international researchers and health professionals, give in [The EUROPAEM EMF Guide](#) comprehensive guidelines aimed at the prevention of health problems from electromagnetic radiation, and has developed the guide to provide a systematic approach to the diagnosis, treatment and prevention of health problems caused by electromagnetic radiation.

Also in [SBM-24](#) one can find practically proven safe levels of EMF. For example: in the case of EHS, RF-EMF radiation levels must be below 1 $\mu\text{W}/\text{m}^2$. What to do now in the world outside numbers of 30,000 $\mu\text{W}/\text{m}^2$ are quite common? 10-1000 $\mu\text{W}/\text{m}^2$ will already lead to severe anomaly.

What can authorities do?

The exposure limits set by the authorities should also allow vulnerable groups to lead healthy lives. This is not the case at present. The gap between the standards recommended here – which are perceived as really helpful – and those applied by the government is so wide that it is clear the government must take constructive measures to ensure these people can lead a life with dignity.

- Lower exposure limits , no need for cell mast to radiate inside the house
- EMF free zones, - time periods, - facilities, - designs
- ALARA in general, preference for hard-wired connections, Lifi
- ALATA for the vulnerable, a life free from EMF must be made possible

This is urgent!

ICBE-EMF says [ELECTROMAGNETIC HYPERSENSITIVITY \(EHS\) IS A HUMANITARIAN CRISIS THAT REQUIRES AN URGENT RESPONSE.](#)