

## Microwave Sickness

<https://www.merriam-webster.com/medical/microwave%20sickness>

noun

: a condition of impaired health first reported in the Russian medical literature that is characterized by headaches, anxiety, sleep disturbances, fatigue, and difficulty in concentrating and by changes in the cardiovascular and central nervous systems and that is held to be caused by prolonged exposure to low-intensity microwave radiation

“Microwave sickness.” Merriam-Webster.com Medical Dictionary, Merriam-Webster, <https://www.merriam-webster.com/medical/microwave%20sickness>. Accessed 9 Nov. 2025.

## Electromagnetic hypersensitivity (EHS, microwave syndrome) - Review of mechanisms

<https://pubmed.ncbi.nlm.nih.gov/32289567/>

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Abstract

Electromagnetic hypersensitivity (EHS), known in the past as "Microwave syndrome", is a clinical syndrome characterized by the presence of a wide spectrum of non-specific multiple organ symptoms,

typically including central nervous system symptoms, that occur following the patient's acute or chronic exposure to electromagnetic fields in the environment or in occupational settings.

Numerous studies have shown biological effects at the cellular level of electromagnetic fields (EMF) at magnetic (ELF) and radio-frequency (RF) frequencies in extremely low intensities.

Many of the mechanisms described for Multiple Chemical Sensitivity (MCS) apply with modification to EHS. Repeated exposures result in sensitization and consequent enhancement of response. Many hypersensitive patients appear to have impaired detoxification systems that become overloaded by excessive oxidative stress.

EMF can induce changes in calcium signaling cascades, significant activation of free radical processes and overproduction of reactive oxygen species (ROS) in living cells as well as altered neurological and cognitive functions and disruption of the blood-brain barrier. Magnetite crystals absorbed from combustion air pollution could have an important role in brain effects of EMF. Autonomic nervous system effects of EMF could also be expressed as symptoms in the cardiovascular system. Other common effects of EMF include effects on skin, microvasculature, immune and hematologic systems.

It is concluded that the mechanisms underlying the symptoms of EHS are biologically plausible and that many organic physiologic responses occur following EMF exposure. Patients can have neurologic, neuro-hormonal and neuro-psychiatric symptoms following exposure to EMF as a consequence of neural damage and over-sensitized neural responses. More relevant diagnostic tests for EHS should be developed. Exposure limits should be lowered to safeguard against biologic effects of EMF. Spread of local and global wireless networks should be decreased, and safer wired networks should be used instead of

wireless, to protect susceptible members of the public. Public places should be made accessible for electrosensitive individuals.

## **Summary of seven Swedish case reports on the microwave syndrome associated with 5G radiofrequency radiation**

[https://www.degruyterbrill.com/document/doi/10.1515/reveh-2024-0017/html?lang=en&srsId=AfmBOorl1l4bln5zhrTtAdkDg8-KMPF\\_k2zOVqB\\_mWo4gNkc2l74CAuG](https://www.degruyterbrill.com/document/doi/10.1515/reveh-2024-0017/html?lang=en&srsId=AfmBOorl1l4bln5zhrTtAdkDg8-KMPF_k2zOVqB_mWo4gNkc2l74CAuG)

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### **Abstract**

The fifth generation, 5G, for wireless communication is currently deployed in Sweden since 2019/2020, as well as in many other countries. We have previously published seven case reports that include a total of 16 persons aged between 4 and 83 years that developed the microwave syndrome within short time after being exposed to 5G base stations close to their dwellings. In all cases high radiofrequency (RF) radiation from 4G/5G was measured with a broadband meter. RF radiation reached  $>2,500,000$  to  $>3,180,000 \mu\text{W}/\text{m}^2$  in peak maximum value in three of the studies.

In total 41 different health issues were assessed for each person graded 0 (no complaint) to 10 (worst symptoms). Most prevalent and severe were sleeping difficulty (insomnia, waking night time, early wake-up), headache, fatigue, irritability, concentration problems, loss of immediate memory, emotional distress, depression tendency, anxiety/panic, dysesthesia (unusual touched based sensations), burning and lancinating skin, cardiovascular symptoms (transitory high or

irregular pulse), dyspnea, and pain in muscles and joints. Balance disorder and tinnitus were less prevalent.

All these symptoms are included in the microwave syndrome. In most cases the symptoms declined and disappeared within a short time period after the studied persons had moved to a place with no 5G. These case histories are classical examples of provocation studies. They reinforce the urgency to inhibit the deployment of 5G until more safety studies have been performed.