

Electromagnetic hypersensitivity

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The term electromagnetic hypersensitivity (EHS) relates to individuals attributing symptoms to exposure to electromagnetic fields (EMF). Typically EHS individuals suffer from a wide range of non-specific symptoms such as neurasthenic or skin symptoms. Often they attribute the symptoms to one or a few specific EMF sources. Prevalence of self-declared EHS was reported to be between 1 and 10 percent in different countries.

A substantial part among EHS individuals claims to be able to perceive EMF in their daily life immediately or within a few minutes after exposure. This ability to perceive low levels of EMF was repeatedly investigated by so-called provocation studies. In such a study, participants are repeatedly exposed to an active field or sham condition in a blind manner and have to detect the correct field status (presence or absence of field). In most of these provocation studies is also evaluated whether EMF exposure triggers the occurrence of symptoms. In addition, epidemiological studies have been accomplished to investigate a potential association between long term exposure and health related quality of life. Provocation studies demonstrated that the large majority of individuals who claims to be able to detect low level RF-EMF are not able to do so under double-blind conditions. If such individuals exist, they represent a very small minority and have not been identified yet. Similarly, most of the provocation studies did not identify a link between exposure and acute occurrence of symptoms. Regarding health consequences from long term exposure the situation is less clear. To date, in epidemiological studies exposure assessment is often limited and it is difficult to differentiate between biophysical and placebo effects (i.e. development of symptoms out of concerns). There seems to be a pattern that the more sophisticated the exposure assessment was carried out, the less likely an effect was reported in an epidemiological study. Nevertheless, longitudinal studies are still missing on this subject.