

# EMF hypersensitivity/ — a stress

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**Does a particular sensitivity to electromagnetic fields (EMF) exist, in other words can people perceive these fields with their senses or “experience“ their presence?**

**What should we understand by the term “EMF Hypersensitivity“? Do particular people suffer from the influence of EMF or is it “all in the imagination“ due to fear of these very waves? Is it a particular talent, a benefit or even a curse? This question is being looked into scientifically in many laboratories. Independent of other findings and investigations and after others have already had their say, this article examines the issue of EMF hypersensitivity and its variants from the viewpoint of a woman who has to deal with those affected every day and who has also instigated appropriate investigations.**

## A few words of introduction:

EMCE (**E**lectro**M**agnetic **C**ompatibility with the **E**nvironment) and related subjects are being discussed at great length at the moment. This topic is about the effect of electromagnetic waves on the environment and on people – commonly called “electro-smog“. However, the popular term is liable to be misunderstood because, unlike atmospheric smog, it disappears as soon as the transmitter is switched off. The fact is that these waves are both not sensible and invisible. Their technical “nature“ is not easy to comprehend, either. This, combined with the fact that these waves have only been used for around 100 years (and are even created artificially) has led some laypersons to get carried away with speculation, while others express rejection, suspicion and apprehension. Praised by users and feared by others because they are mostly stronger than the naturally occurring fields, they exist in addition (the allegory of the overflowing barrel is often quoted) and because there is rarely an escape from them, leaving people exposed “unprotected“.

The fact that the “effect“ can also be positive interests few people involved in the public discussion, in some cases the effect is a matter of course. Sometimes, however, many positive properties are only interpreted into it – and many negative ones as well. However, the fact is that we cannot shut them out of our lives any longer. Electromagnetic waves have been used alongside public communication for a long time



# hypersensitivity syndrome?

in the most varied areas: The police, fire departments or doctors use them as radio communication services for their tasks. And it is likely that hardly anyone would like to do without radio and television, either. But in medicine too, the influence of EMFs on tissue and bones has its applications: Both in diagnostics and therapy, electromagnetic waves of varying frequencies and strengths are being used.

And that is also the crux of the matter: The decisive factor in considering the question of whether and to what extent electromagnetic waves may have an effect, is above all where they take effect, with which intensity and at which frequency. The level of the field strength, the exposure time, and so on, as well as the action mechanisms must all be differentiated. For instance, the mutual interference of machines (referred to as EMC) cannot be taken as evidence of a supposed impairment or even danger to people and environment by electromagnetic waves – along the lines of “If it even has an effect on machines, just how strong (and how dangerous) will its influence be on people“. On the other hand, an influence of this kind must not be ruled out *a priori*. Neither may living organisms (human beings) be subjected to possible danger in return for a certain benefit. For this reason investigations have been conducted for decades to determine the possible health effects of electromagnetic waves (after reading this article, do take a look at Dr. Ruppe’s contribution on reproduction and EMF exposure) and for establishing suitable limits.

Diverse studies have shown that the psychological effect accompanying the increasing expansion of the new radio technologies can be so strong that the mere presence of radio devices or antennas can induce fear and even impair the health and cause pain, even if they are not yet operating (Newsletter 4/2004, Dr. Kaul „Fear of the pulses used in mobile telephony“).

On the other hand, again and again people are quoted who claim that they are „electrosensitive“, meaning that they can “feel“ electromagnetic fields, and sometimes also suffer from their effects. Here too, there have been a number of different studies and investigations attempting to prove these assertions. An interesting issue – however usually a vexatious one for those affected according to their own statement. Reason enough to make this a topic for our Newsletter and to ask a specialist: Dr. Birgit Stöcker from the *Verein für Elektrosensible e.V.* in Munich, a body which has been in existence since 1989 and has advised around 3000 affected persons and in some cases monitored them for years, reports from her own experience after working for 15 years with people affected by electrosensitivity and after acquiring a comprehensive empirical knowledge by studying extensive literature and diverse pilot studies with physicians and environmental laboratories, ministries, federal agencies, politicians and scientists. She assesses the subject below.

Birgit Stöcker

“In line with the current state of the discussion, our organisation sees **EMF hypersensitivity** as primarily being a stress syndrome, characterised by increased activity of the sympathetic nervous system, heightened action potentials, and the release of stress factors such as free radicals, adrenalin (epinephrine), noradrenalin, histamine, cholesterol, and so on. This means the question is not: “How does the individual deal with electromagnetic radiation?”, but rather: “How do sick or healthy people manage with stress?” In line with individual tolerance in the face of these stress factors, those affected suffer from unspecific symptoms, such as dizziness, headaches, chronic tiredness, sleeplessness, Ménière’s disease (auditory vertigo) and even epilepsy. Or they complain about fluctuating blood pressure, breathlessness, and cardiac arrhythmias right up to heart attacks. Because these problems generally disappear after switching off the electromagnetic source, according to the people concerned, we are talking here about an early warning system of the body, which should not be underestimated.

In my opinion, diagnosing EMF hypersensitivity is very simple, as stress factors can be measured in the laboratory. If necessary, the causality between EMF and the release of the said factors can be established by *in vivo* or *in vitro* provocation with electromagnetic fields (e.g. by a 15 minute call using a mobile or DECT telephone). Therapeutically, orthodox medicine can offer enough in the way of beta blockers, calcium antagonists, calcium channel blockers, and anti-epileptics while naturopathy offers vitamins, dietary supplements, homoeopathic medicines and other products.

In cases where this stress phenomenon is suppressed (perhaps also caused by a direct electromagnetic cause) damage may sooner or later arise (**electro-injuries**), which make up a large proportion of the diseases of modern civilization. In particular, these include changes to the nervous and hormone sys-

tems, cardiovascular effects and effects on immunity, disturbances of the body’s metabolism to deal with proteins, fats, carbohydrates and minerals, cell proliferation (cancer) as well as genetic consequences. As a rule, a “radiation sickness” like this is irreversible. It does not only occur in cases of electrosensitivity but can affect all members of society, without the exposure being perceptible.

Diagnostics and therapy are commensurate with the symptoms displayed. Provocation with EMF may demonstrate causality, for instance through measurements of changes in blood pressure or immunomodulation. Today it is DNA testing above all that provides clarity. Nevertheless, the medical connections can often only be recognized with difficulty as environmental ailments and the diseases of modern civilization are generally a synergism of multiple exposures. What we are seeing is shown in the graphic on page 25.

In my opinion, EMF hypersensitivity is to be seen as another problem, in fact as a sensory disorder in the sense of an increased perception of EMF. Earlier neurological/neuropathical damages are already underlying; e.g. the condition following meningitis, borreliosis (Lyme disease) or multiple sclerosis, cases of a brain-stem syndrome, brain tumour or of having undergone a fracture of the skull.

Diagnosis calls for a comprehensive neurological check-up where, as a rule, sensibility results from the particular clinical picture. Such patients should not be subjected to *in vivo* provocation. The therapy corresponds to the basic disease diagnosed. If no cure is possible, the stimulus paths must be attenuated (for instance by Lexotanil). One new phenomenon is **electro-allergy**, which primarily occurs in young people as frequency sensitivity. As a rule, we do not encounter here the classical case history of a growing environmental disorder (like heavy metal intoxication, allergy, chemical sensitivity, EMF hypersensitivity and electro-injury). Instead, people react to the

individual frequencies with which they mainly have contact, for example the frequencies of the mobile phone that is used all the time. On the other hand, they do not normally show any altered reaction to computers or low-frequency equipment.

As the description of the EMF hypersensitivity problem shows, the biological effects have been completely misunderstood over the last few decades. As a result of increasingly technological developments

and above all the introduction of mobile telephony, the evaluation of these effects is starting to change. In my opinion, if we now classify the biological effects found in thousands of studies worldwide in the four categories outlined here, it demonstrates the existence of a completely logical electromagnetic syndrome."

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