



## ELECTROMAGNETIC 'HYPERSENSITIVITY'

For some time, a number of individuals have reported a variety of health problems that they have attributed to exposure to electromagnetic field (EMF) emissions, such as those produced by mobile phones and base stations. These individuals have often been described as being electromagnetic (EM) 'hypersensitive'.

The EMF levels to which these individuals are exposed are, according to the World Health Organization (WHO), generally well below recommended exposure limits and are certainly far below those known to produce any health effects.

Reported sensitivity reactions include a wide range of non-specific symptoms including dermatological symptoms (such as tingling or burning sensations), neurasthenic and vegetative symptoms (such as fatigue or concentration difficulties, heart palpitation and digestive disturbances).

In October 2004, the WHO conducted a workshop of hypersensitivity in Prague, Czech Republic. Following that workshop, the WHO concluded:<sup>1</sup>

- EM hypersensitivity<sup>2</sup> is characterised by a variety of non-specific symptoms that differ between individuals
- While those symptoms are real, there is no scientific evidence of causal link with EMF exposure
- There are no grounds to use EM hypersensitivity as a diagnostic classification
- There is no indication that lowering internationally accepted EMF limits would reduce the prevalence of symptoms associated with EM hypersensitivity.

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<sup>1</sup> The workshop summary is available from the WHO's website at [http://www.who.int/peh-emf/meetings/hypersens\\_summary\\_oct04.pdf](http://www.who.int/peh-emf/meetings/hypersens_summary_oct04.pdf).

<sup>2</sup> The WHO prefers the expression "Idiopathic Environmental Intolerance" to EM hypersensitivity, which implies a causal relationship between the reported symptoms and EMF: [http://www.who.int/peh-emf/meetings/hypersens\\_summary\\_oct04.pdf](http://www.who.int/peh-emf/meetings/hypersens_summary_oct04.pdf).

Subsequent to the WHO workshop, a team of scientists from the Justus Liebig University Giessen, Germany, has published a review of literature published between 2000 and 2004 pertaining to EM hypersensitivity and EMF from mobile phones.

Of the thirteen studies that met the reviewers' criteria for experimental quality, no evidence of exposure and effect could be found.<sup>3</sup> The reviewers concluded that:

Altogether, there was little evidence for a particular population subgroup who is able to perceive electromagnetic fields in an experimental double-blind setting at a much lower threshold than the general population. No specific symptom cluster was found to be caused by exposure to mobile phone radiation.

Another recent review encompassed both radiofrequency (associated with mobile communications systems) and extremely low frequency EMF and listed 31 studies of note published before January 2004. This group of reviewers also found "no robust evidence to support the existence of a biophysical hypersensitivity to EMF".<sup>4</sup>

The MMF supports the WHO's view that treatment of sufferers who relate their symptoms to EM hypersensitivity should focus on the health symptoms and clinical picture by performing:

- A medical evaluation to identify and treat any specific conditions that may be responsible for the symptoms
- An assessment of the workplace and home for factors that might contribute to the presented symptoms
- A psychological evaluation to identify alternative psychiatric/physiological conditions that may be responsible for the symptoms.

*September 2005*

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<sup>3</sup> Seitz, H, Stinner, D, Eikmann, Th, Herr, C, Roosli, M. Electromagnetic hypersensitivity (EHS) and subjective health complaints associated with electromagnetic fields of mobile phone communication---a literature review published between 2000 and 2004. *Science of the Total Environment*, June 20 [e-publication ahead of print], 2005, available at <http://www.sciencedirect.com>.

<sup>4</sup> Rubin, GJ, Das Munchi, J, Wessely, S. Electromagnetic hypersensitivity: a systematic review of provocation studies. *Psychosom Med*. Mar-Apr; 67(2): 224-32. 2005, available at <http://www.psychosomaticmedicine.org>.