RESPONSE TO HHS REQUEST FOR COMMENT

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INTRODUCTION

The number of people diagnosed with intolerance to electromagnetic fields (EMFs) has increased significantly since the introduction of cellular telecommunication devices from the 1980s. The syndrome of specific symptoms associated with this exposure to man-made EMFs has been internationally recognised as a physiological disorder and not psychological. Its prevalence is now reported to be in the region of 10 % in three industrialised countries [Belpomme et al 2021, McCredden et al 2026].

BACKGROUND

The specific symptoms of sensitivity to electric, magnetic and electromagnetic fields, such as physical pains, headaches, fatigue and weakness, were first described in the scientific literature in 1733, and for hypersensitivity in 1746. Subconscious adverse effects for radiofrequency (RF) were recorded in 1896, with conscious symptoms in 1932, and differentiation into three progressive phases in 1974 [Firstenberg 2020, Sadchikova 1974].

These physiological symptoms were not the result of heating bodily tissue by one degree or more over 6 or 30 minutes, the current standard originally adopted based on three studies of behavioural disruption in rats and monkeys from 1976 to 1984. In contrast, non-thermal effects of RF were indicated, for instance, when a given deposition of RF energy which raised body temperature by the same amount over one hour did not cause cataracts if continuous, but did cause cataracts if pulsed [Carpenter 1962].

All living cells are sensitive to magnetic fields and this can explain many of the symptoms caused EMFs [Henshaw et al 2025]. Some people are genetically hypersensitive to EMF [de Luca et al 2014]. Symptoms are sometimes delayed and often the result of cumulative exposures [Bevington 2026].

DISCUSSION

These physiological symptoms caused by EMF exposure are disabling for people badly affected. They can cause loss of employment, housing and family.

These physiological symptoms of exposed to cellular telecommunication radiation can be reduced or prevented in three ways. Firstly, shielding where possible, but this can be expensive or difficult and can restrict equality of access for those affected. Secondly, people can be advised not to enter EMF zones liable to cause these symptoms, but this fails to provide equality of access. Thirdly, the levels of EMF exposure can be reduced to non-thermal levels safe for all people, below current thermal limits which do not protect all people [ICBE-EMF 2022]. Non-thermal levels have been adopted since 1935 and were advised by the ICNIRP in 2002 for individual governments in their General Approach.

RECOMMENDATION

The solution chosen by most countries which have responded to this growing health need is that suggested by the WHO's ICNIRP, the adoption of non-thermal limits. For those who are hypersensitive to RF, a level of 0.005 V/m, which includes a safety margin of ten times, has been suggested [Bevington 2024], based on current evidence. Cell phones can receive signals at similar power levels.

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