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Abstract
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The effects of 884 MHz GSM wireless communication signals on headache and other symptoms: an experimental provocation study.

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Source

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Abstract

Findings from prior studies of possible health and physiological effects from mobile phone use have been inconsistent. Exposure periods in provocation studies have been rather short and personal characteristics of the participants poorly defined. We studied the effect of radiofrequency field (RF) on self-reported symptoms and detection of fields after a prolonged exposure time and with a well defined study group including subjects reporting symptoms attributed to mobile phone use. The design was a double blind, cross-over provocation study testing a 3-h long GSM handset exposure versus sham. The study group was 71 subjects age 18-45, including 38 subjects reporting headache or vertigo in relation to mobile phone use (symptom group) and 33 non-symptomatic subjects. Symptoms were scored on a 7-point Likert scale before, after 1(1/2) and 2(3/4) h of exposure. Subjects reported their belief of actual exposure status. The results showed that headache was more commonly reported after RF exposure than sham, mainly due to an increase in the non-symptom group. Neither group could detect RF exposure better than by chance. A belief that the RF exposure had been active was associated with skin symptoms. The higher prevalence of headache in the non-symptom group towards the end of RF exposure justifies further investigation of possible physiological correlates. The current study indicates a need to better characterize study participants in mobile phone exposure studies and differences between symptom and non-symptom groups.

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