Radiation-detector controlled electrophysiological reactivity (EEG and ECG) due to mobile phone radiation

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The main objective of this study is to investigate whether radiofrequency electromagnetic radiation, induced by a mobile phone placed on the body, causes a change in electrophysiology.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON38568

Source
ToetsingOnline

Brief title
Electrophysiological reactivity due to mobile phone radiation

Condition

- Other condition

Synonym
changes in electrical heart and brain activity (ECG and EEG)

Health condition

tijdelijke verandering van elektrofysiologische uitkomstmaten (ECG, EEG, respiratie en GSR)

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit Maastricht
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: ECG, EEG, Mobile phone, radiation

Outcome measures

Primary outcome

A change in one of the following parameters due to mobile phone radiation:

- ECG (heart rate)

- EEG (power of the different band widths)

Secondary outcome

not applicable.

Study description

Background summary

Mobile phones are used worldwide and its usage is still increasing. Also due to mobile phones, people are nowadays almost continuously exposed to radiofrequent electromagnetic radiation.
The problem with research published thus far about the possible effects of mobile phone radiation is, that in many of them, there were suspected conflicts of interest. Furthermore, most of the studies investigated averaged condition effects, in which the effects of the electrophysiological parameters (EEG and/or ECG) were quantified with the aid of an averaged estimation of the exposure condition (in which the radiating mobile phone was present). In this study we will also examine, next to these averaged condition effects, the effects directly following radiationpeaks.
EEG and ECG signals are nested within each test subject, that is why we will use multilevel analysis, to take this nesting into account.

Study objective

The main objective of this study is to investigate whether radiofrequency

electromagnetic radiation, induced by a mobile phone placed on the body, causes a change in electrophysiology.

Study design

Single-blind, randomised intervention study

Intervention

Placement of a dialling mobile phone on the body.

Study burden and risks

The experiments involve non-invasive measurements, without any risks. Furthermore, there are no benefits to subjects
and / or risks associated with participation in this study. The exposure to electromagnetic radiation is comparable to normal mobile phone usage.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Female, 18-30 years old, good understanding of the dutch language

Exclusion criteria

cardiac or neurological abnormalitie/disease in the medical history

Study design

Design

Study type:	Interventional
Intervention model:	Crossover
Masking:	Single blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	09-12-2013
Enrollment:	65
Type:	Actual

Ethics review

Approved WMO

Date:	30-07-2013

Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
ClinicalTrials.gov	NCT01872806
CCMO	NL44004.068.13