# The effect of mobile phone use on symptoms and neuroendocrine function in 'normal' and 'hypersensitive' users

Submission date Recruitment status Prospectively registered 21/12/2005 No longer recruiting [ ] Protocol [ ] Statistical analysis plan Registration date Overall study status 10/01/2006 Completed [X] Results [ ] Individual participant data Last Edited Condition category 09/10/2008 Mental and Behavioural Disorders

## Plain English summary of protocol

Not provided at time of registration

# Contact information

## Type(s)

Scientific

#### Contact name

**Prof Simon Wessely** 

#### Contact details

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# Additional identifiers

Protocol serial number N/A

# Study information

Scientific Title

## Study objectives

Exposure to pulsed 900 MHz Global System for Mobile Communications (GSM) radiofrequency fields will be associated with higher symptom reporting and altered neuroendocrine function in comparison to exposure to unpulsed radiofrequency fields or a 'sham' condition.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

The study has been approved by the Institute of Psychiatry/South London and Maudsley NHS Trust Ethical Committee (Research)(reference: 131/02)

## Study design

Double-blind, within participants, randomised controlled trial

## Primary study design

Observational

## Study type(s)

Other

## Health condition(s) or problem(s) studied

Sensitivity to radiofrequency fields / electrosensitivity

#### **Interventions**

Each participant will be exposed to each of three conditions: pulsed 900 MHz GSM radiofrequency fields, unpulsed radiofrequency fields of the same mean power, and a sham (placebo) condition. Each of these conditions will last for 50 minutes. The order these conditions will be presented in for each participant will be determined using block randomisation.

## Intervention Type

Other

#### Phase

**Not Specified** 

## Primary outcome(s)

Our primary outcome will consist of self-reported headache severity during exposure, recorded using a 0-100 mm visual analogue scale.

# Key secondary outcome(s))

Secondary outcomes will include: self-reported severity for nausea, fatigue, dizziness, skin itching, tingling or stinging, sensations of warmth or burning on skin, and eye pain or dryness.

Neuroendocrine outcomes will include: plasma levels of cortisol, adrenocorticotropic hormone, growth hormone and prolactin.

Secondary outcomes will be recorded during each of the three experimental provocations.

## Completion date

# **Eligibility**

## Key inclusion criteria

Two samples will be tested, consisting of 'control' and 'sensitive' participants. To be eligible for the sensitive group, participants must report experiencing often headaches within 20 min of using a GSM mobile phone. Only participants who do not attribute any symptoms to mobile phone signals will be eligible for inclusion in the control group.

## Participant type(s)

**Patient** 

## Healthy volunteers allowed

No

## Age group

Adult

#### Sex

All

## Key exclusion criteria

Participants will be excluded if: under 18, over 75, pregnant, suffering from a psychotic illness, currently using antidepressants, or if they report severe symptoms at baseline while in the testing room.

## Date of first enrolment

01/09/2003

## Date of final enrolment

30/06/2005

# Locations

## Countries of recruitment

United Kingdom

England

Study participating centre Mobile Phone Research Unit

London United Kingdom SE5 9PJ

# Sponsor information

## Organisation

Mobile Telecommunications and Health Research programme (UK)

# Funder(s)

## Funder type

Not defined

## Funder Name

Funded by the UK Mobile Telecommunications and Health Research programme (MTHR)

# **Results and Publications**

Individual participant data (IPD) sharing plan

# IPD sharing plan summary

Not provided at time of registration

## **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient- facing?
Results article	Results	06/03 /2006		Yes	No
Other publications	Within participants double blind randomised provocation study:	15/04 /2006		Yes	No