

Medical/biological Study (experimental study)

Effects of electromagnetic radiation from a cellular phone on human sperm motility: an in vitro study.

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Published in: Arch Med Res 2006; 37 (7): 840 - 843

Aim of study (according to author)

To investigate possible effects on human sperm parameters exposed to electromagnetic irradiation of a GSM mobile phone *in vitro*.

Background/further details:

The study population was composed of 27 healthy men with normal sperm parameters defined by the WHO. The sperm sample from each participant was divided into electromagnetic irradiation-exposed and not-exposed group.

Endpoint

- effects on reproductive ability: sperm quality

Exposure

General category: digital mobile phone, GSM

Field characteristics	Parameters
900 MHz pulsed (PW) exposure duration: continuous for 5 min	power: 2 W peak value power flux density: 0.02 mW/cm ² mean value magnetic flux density: 7.1 μT (1.7-7.1 μT)

Exposed system:
sperms

Methods

Endpoint/Measurement parameters/Methodology

- effects on reproductive ability: sperm concentration (Makler counting chamber), sperm motility (WHO grade: A: rapid progressive, B: slow progressive, C: nonprogressive, D: no motility)

investigated material: sperms

time of investigation: after exposure

Main outcome of study (according to author)

Statistically significant differences in sperm motility were observed in the rapid progressive, slow progressive and no motility categories. Electromagnetic irradiation exposure caused a subtle decrease in the rapid progressive and slow progressive sperm motility. It also caused an increase in the no motility category of sperm motility.

There was no statistically significant difference in the sperm concentration between the exposed and not-exposed group.

(Study character: medical/biological study, experimental study, full/main study)

Study funded by

- not stated

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