

Epidemiological Study (cross-sectional study)

Prevalence of headache among handheld cellular telephone users in Singapore: a community study.

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Aim of study (according to author)

The prevalence of specific central nervous system symptoms among cellular telephone users was investigated in a cross-sectional study in Singapore.

Background/further details:

A mobile phone user was defined as a person who used the mobile phone at least once each day on average.

Endpoint/type of risk estimation

- CNS symptoms: headache, dizziness, difficulties in concentration, loss of memory, unusual drowsiness or tiredness, sense of warmth behind or around the ear, burning sensation to the ear and face, tingling sensation to the face, and visual disturbances

Estimate of prevalence

Exposure

- mobile phone/mobile communication system, digital mobile phone
- type of exposure: personal
- assessment by questionnaire (mobile phone use, duration per day, times per day, use of hand-free equipment)

groups of exposure:

Reference group 1:	no mobile phone use
group 2:	mobile phone use
group 3:	duration per day: < 2 min
group 4:	duration per day: 2 - 60 min
group 5:	duration per day: > 60 min
group 6:	times per day: 0
group 7:	times per day: < 5
group 8:	times per day: 5 - 10
group 9:	times per day: > 10
group 10:	hand-free equipment used: never
group 11:	hand-free equipment used: some of the time
group 12:	hand-free equipment used: all of the time

Population

Study group: men and women, aged from 12 to 70 years


Group characteristics: healthy Singaporeans

Observation period: January 2000

Study location: Bishan, Singapore

Exclusion criteria: brain surgery, stroke, post-trauma headache

Further parameters acquired by questionnaire (age, sex, occupation, marital status, ethnic group, general health status, nature and severity of CNS symptoms)

Study size 	cohort
number participating	808
rate of participating	45

Remark: 781 individuals included in analysis

Statistical analysis using Cox proportional hazards regression (adjusted for age, sex, ethnic group, use of video display terminal, and occupational group), Chi-square test

Results/conclusion (according to author)

362 individuals (44.8 %) used a mobile phone.


Headache was the most prevalent symptom among mobile phone users as compared to non-mobile phone users (60.3 % versus 54 %; adjusted prevalence rate ratio: 1.31; CI: 1.00 - 1.70). The use of mobile phone was not associated with a significant increase of CNS symptoms other than headache.

Limitations (according to author): The participation rate was low and could bias the findings.

(Study character: epidemiological study, cross-sectional study)

Study funded by

- not stated

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