

Epidemiological Study (study)

Einfluss der räumlichen Nähe von Mobilfunksendeanlagen auf die Krebsinzidenz.

Influence of proximity to mobile telephony transmitters on cancer incidence. (original article in German)

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Aim of study (according to author)

Aim of study conducted in Germany was to investigate whether people living close to mobile telephony transmitter have an increased risk for malignant tumors.

Endpoint/type of risk estimation

- all cancer: tumors of breast, ovaries, prostate, pancreas, intestine, skin, lung, kidney, stomach, bladder, and blood

Estimate of incidence by odds ratio (OR)

Exposure

- mobile phone/mobile communication system, digital mobile phone, BTS/base station
- type of exposure: residential
- assessment by list (patient lists of four general practitioners)

groups of exposure:

Reference group 1:	living in the outer circle in the period 1994 - 2004: distance to the next base station more than 400 m
group 2:	living in the inner circle in the period 1994 - 2004: distance to the next base station less than 400 m
Reference group 3:	living in the outer circle in the period 1999 - 2004: distance to the next base station more than 400 m
group 4:	living in the inner circle in the period 1999 - 2004: distance to the next base station less than 400 m

Population

Study group: men and women

Group characteristics: patients of Naila

Observation period: 1994 - 2004

Study location: Naila, Germany

Source of data: PC-based files of four general practitioners

Exclusion criteria: residents of a nursing home; living less than 10 years in the inner circle

Study size ⓘ	cohort
number total	967

Remark: 34 cancer cases: 18 in the inner circle and 16 in the outer circle

Statistically significant results ⓘ

group	exposure	endpoint	observed	expected	parameter	confidence
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			cases	cases	(OR)	interval
2	living in the inner circle in the period 1994 - 2004: distance to the next base station less than 400 m	tumor	18	16	2.4	1.18 - 4.67
4	living in the inner circle in the period 1999 - 2004: distance to the next base station less than 400 m	tumor	13	8	3.4	1.39 - 8.25

Statistical analysis using Chi-square test

Results/conclusion (according to author)


320 of 967 residents of Naila have been living in the inner circle at a distance to the next base station less than 400 m.

The results showed an increased risk for malignant tumors for patients living closer than 400 m to the mobile telephony transmitter compared to patients living further away. In the years 1999 - 2004 the risk for malignant tumors tripled for patients living in the proximity of the mobile telephony transmitter.

(Study character: epidemiological study, study)

Study funded by

- not stated

Related articles 

- [Neubauer G et al. \(2007\)](#): Feasibility of future epidemiological studies on possible health effects of...
- [Meyer M et al. \(2006\)](#): Mobilfunkbasisstationen und Krebshäufigkeit in Bayern.

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