

## 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

<b>Study size</b> ⓘ	<b>cohort</b>
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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			<b>cases</b>	<b>cases</b>	<b>(OR)</b>	<b>interval</b>
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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