



CELL PHONE RADIATION

HARMLESS OR DANGEROUS?



HEALTH 4 U



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REASONS TO WORRY?



“The electromagnetic fields produced by mobile phones are classified by the International Agency for Research on Cancer as possibly carcinogenic to humans.” (WHO, 2014)

Reasons why people are concerned that cell phones might have the potential to cause certain types of cancer or other health problems:

- Cell phones emit radiofrequency radiation.
- The number of cell phone users has increased rapidly.
- The number of cell phone calls per day, the length of our calls, and the amount of time people use cell phones have increased.

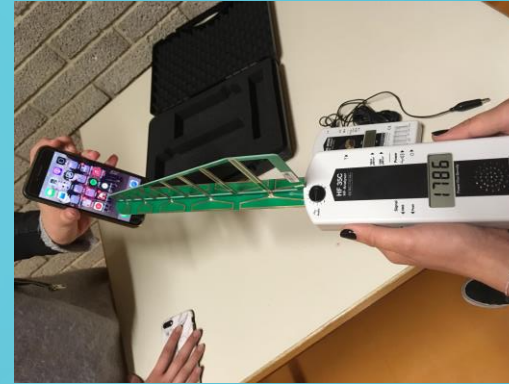
REASONS TO WORRY?



Studies show a correlation in lab rats, but the evidence may not resolve ongoing debates over causality or whether any effects arise in people.

The ionizing radiation given off by sources such as x-ray machines and the sun boosts cancer risk. But the non-ionizing radio-frequency (RF) radiation that cell phones and other wireless devices emit has one known biological effect: an ability to heat tissue by exciting its molecules. Should we be worried?

MEASURING



Thanks to our Erasmus+ project 'Health 4 U' we had the unique opportunity to rent professional radiation measuring instruments to detect electromagnetic radiation emitted by smart phones.

Several science classes did careful measurements under different circumstances: good/ poor signal, WLAN call, standby mode, anti-radiation case, anti-radiation sticker, WhatsApp call, ...

RESULTS



- Students were quite surprised that the cell phone types and SAR values made a very big difference.
- In addition to the practical measurements we were dealing with the effects of cell phone radiation on human health, the cell phone as a social factor and how mobile telephony works in general.
- What was most surprising to the students was the fact that cell phones even radiate in standby mode, because they send signals to the next radio cell.

RULES FOR A SAFER CELL PHONE USE:



- Make longer phone calls only when your signal is good.
- WLAN reduces emissions.
- Don't carry your cell phone close to your body.
- Don't sleep right next to your cell phone.
- Keep SAR values in mind.
- Use speaker mode or a headset.
- Place more distance between your head and the cell phone.
- Turn off your phone from time to time ;-)



FIND OUT MORE...



...about cell phone radiation:

<https://www.who.int/news-room/fact-sheets/detail/electromagnetic-fields-and-public-health-mobile-phones>

<https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/cell-phones-fact-sheet>

<https://www.scientificamerican.com/article/new-studies-link-cell-phone-radiation-with-cancer/>

https://www.niehs.nih.gov/health/materials/cell_phone_radiofrequency_radiation_studies_508.pdf

...about our project:

www.h4uerasmus.com

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