

Exposure to electromagnetic radiation is not a new phenomenon. During the 21st century, environmental exposure to man-made electromagnetic fields has been steadily increasing as growing electricity demand, ever-advancing technologies and changes in social behavior have created more and more artificial sources.

Electromagnetic radiation is found in natural sources like the sun and in man-made sources, like cell phones. There are two types of electromagnetic radiation: ionizing, and non-ionizing.

- **Ionizing radiation** is high frequency (high energy) and examples include medical x-rays, radon, and sun light.
- **Non-ionizing radiation** is low frequency (low energy) and examples include cell phones, microwave ovens, cordless phones, motion detectors, cell towers, incandescent light bulbs, and Wi-Fi.

Many studies have examined the potential health effects of non-ionizing radiation from microwave ovens, cell phones, and other sources. There is currently no consistent evidence that non-ionizing radiation increases cancer risk. However, scientific studies are underway to determine whether long-term, low level exposure can result in health problems.

In addition, children are generally more vulnerable to environmental factors as their bodies and brains are still developing. For this reason, the American Academy of Pediatrics (AAP) recommends that parents limit children's exposure and follow the following safety tips with cell phone use:

- Use text messaging when possible and use cell phones in speaker mode or with the use of hands-free kits.
- When talking on a cell phone, try holding it an inch or more away from your head.
- Make only short or essential calls on cell phones.
- Avoid carrying your phone against the body like in a pocket, sock, or bra.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.

Some additional resources on electromagnetic radiation and health:

<https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Cell-Phone-Radiation-Childrens-Health.aspx>

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

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

https://www.cdc.gov/nceh/radiation/nonionizing_radiation.html