



## CELL PHONE FACTS



- All cell phones in “on” mode emit non-ionizing microwave or radio frequency radiation (RFR), even when not in use. This type of radiation is the subject of ongoing research to determine its biologic effects on humans.
- The World Health Organization (WHO) currently classifies radio frequency radiation as a 2-B carcinogen (“Possibly Carcinogenic”) based on data from numerous studies that link long-term or heavy cell phone use to a type of brain tumor called a glioma. A growing number of studies also suggest an increased risk for tumors of the acoustic nerve and parotid gland.
- The greatest potential health risk comes from holding a cell phone directly against your head where the radiation from the antenna may alter brain function or damage cells. Studies also show that men who carry cell phones in their front pockets may have a higher risk of sperm damage. Distance is everything!
- When a cell phone indicates a poor signal (fewer signal bars), it means that it is emitting more radiation as it tries to connect with the nearest transmission antenna.
- When you use a cell phone in enclosed metal spaces, such as a moving vehicle (cars, buses, trains, etc), there is a significant increase in power (radiation) as it transfers from one transmission antenna (cell tower) to another. Metal surfaces in a car significantly increase radiation exposure, similar to a Faraday cage effect.
- The rate at which energy is absorbed by the body when exposed to RFR is called the specific absorption rate (SAR). The SAR is measured in watts absorbed per kilogram of body weight. The SAR of different cell phone brands and models varies greatly.
- Exposure to RFR is greater when the user is talking, rather than listening. Cell phones emit more radiation when they transmit signals than when they receive them.
- Children are more vulnerable to RFR from cell phones because their brains are still developing and their skulls are thinner, thereby absorbing more radiation than an adult.
- Public health agencies around the world acknowledge the need for further study, but some countries are already taking precautions and making recommendations against the excessive use of cell phones, especially by children.

*Information obtained from: World Health Organization’s International Agency for Research on Cancer; The Journal of the American Medical Association; Microwave News; Environmental Working Group; Surgical Neurology; National Cancer Institute.*

# CELL PHONE TIPS

- Never hold a cell phone directly against your head. Use a wired headset or the speaker setting whenever possible. Even the “fine print” from the manufacturer’s instruction manual tells you not to hold it against your head.
- Manufacturers also warn you against carrying cell phones on your body (pockets, belt clips, bras, etc.) where radiation can be absorbed by soft tissues. Pocketbooks, bags and briefcases are all good options for carrying cell phones.
- Cell phones should not be placed under pillows, on beds or bedside tables where they expose you to radiation while you sleep. Turn your phone off at night or keep it at least five feet away from your bed.
- Moving the phone away from your body by using a corded air tube headset or using the phone on speaker mode greatly reduces your exposure. Putting phones on airplane mode when you do not need to be connected to the internet is also effective in reducing RFR.
- Avoid using cell phones in moving vehicles, including cars, trucks, buses and trains as your phone will increase power to repeatedly attempt to connect to a new relay antenna. Wait to make your calls at rest stops or stations.
- When you have a poor signal (fewer signal bars), stay off the phone.
- Adopt these rules - “Text More, Talk Less,” “Listen More, Talk Less,” and, of course, don’t have long conversations on the phone!
- Choose a cell phone with the lowest specific absorption rate (SAR).
- At home, install a landline phone if you don’t have one. Landline communication is an established technology that is completely safe. Cordless phones, however convenient, use technology similar to that of cell phones.
- Whenever possible, limit the use of cell phones by children under the age of 14. If they need to use a cell phone, instruct them to “text more, talk less” or to use it on the speaker setting or with a headset.

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