



## 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 worldwide to determine its biological effects.
- The World Health Organization (WHO) currently classifies cell phones as “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 risks come from holding a cell phone directly against the head, where the radiation from the antenna may alter brain function or damage cells. While older models of cell phones have a visible antenna, current models locate the antenna inside the phone.
- Exposure to cell phone radiation is greater when the user is talking, rather than listening. In other words, cell phones emit more radiation when they transmit signals than when they receive them.
- Keeping a cell phone away from the body by putting the phone on speaker mode or using a headset reduces the exposure to RFR.
- When a cell phone indicates a poor signal (fewer signal bars), it means that it will emit more radiation as it tries to connect with a transmission antenna.
- Similarly, when you use cell phones in moving vehicles (cars, buses, trains, etc.), there is a significant increase in power (radiation) as it transfers from one transmission antenna (cell tower) to another. The radiation also reflects off the metal surfaces of the car, further increasing radiation exposure.
- The “SAR” (Specific Absorption Rate) value only compares the heating effects (the rate at which energy is absorbed by the body when exposed to RFR) of different cell phones. A low SAR value is not an assurance of a cell phone’s safety, as there are many other components of risk, especially those associated with biological effects.
- Children are more vulnerable to RFR because their brains are still developing and their skulls are thinner.
- Public health agencies around the world acknowledge the need for further study, but some countries have already taken precautions and made recommendations against the use of cell phones by children and pregnant women.



## *Cell Phone Tips*



- Never hold a cell phone directly against your head. Use the speaker setting or a headset whenever possible. Corded headsets utilizing an air tube are considered most protective.
- If circumstances require you to hold the phone near your head, switch sides (ears) frequently.
- Texting creates higher spikes of radiation than talking. Try to place the phone on a surface rather than holding it near or against your body when texting.
- Do not carry cell phones on your body (pockets, belt clips, etc.) where radiation can be absorbed by soft tissues.
- Cell phones should not be placed under pillows, on beds or on bedside tables where they expose you to radiation while you sleep. Keep your phone at least five feet away from your bed.
- Avoid using cell phones in moving vehicles (cars and all forms of public transportation, including elevators).
- If you have a poor signal (fewer signal bars), stay off your cell phone.
- Limit the use of cell phones by children under the age of 14. If they need to use a cell phone, instruct them to use it on the speaker setting or with a corded headset. Explain to your child that cell phones should only be used for emergencies or brief conversations, like checking in.
- To further reduce RFR exposures, use hard wired internet connections or at least unplug wireless transmitters at night. Use corded land line phones whenever possible. Cordless (DECT) phones use similar wireless technology and emit radiation.

***Grassroots Environmental Education***  
***52 Main Street***  
***Port Washington, NY 11050***  
***516-883-0887***  
***[www.grassrootsinfo.org](http://www.grassrootsinfo.org)***

*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.*