

## **Basic Cell Phone and Wireless Safety**

Cell phones and cell phone towers transmit and receive radio-frequency (RF) radiation, which is in the same part of the spectrum as microwave radiation. These forms of radiation affect our cells. Children are much more vulnerable to the effects of RF radiation because of the size of their skulls and their rapidly growing cells.

The most health-protective strategy is not to use a cell phone at all, and to live as far as feasible from any cell phone antenna site (ideally in a place where there is no cell reception). Also avoid using wireless or cordless devices in your home. This includes wireless routers and cordless phones.

For many people the above conditions are not possible, so here are some good ways to limit exposure to cell phone radiation:

- use a cell phone only when absolutely necessary. Use a land line whenever possible.
- if you must use a cell phone, use it on speakerphone or with a wired (not wireless/Bluetooth) headset that prevents the radiation from traveling from the phone along the headset cord. Two safer headset options are those with hollow tube rather than cord connections between earpiece and phone, and placing a magnetic device on the cord.
- do not allow children to use cell phones.
- never use a cell phone in a car or other metal enclosure with children present. Because metal deflects RF radiation, it will bounce around within the car, and the phone will produce an even stronger signal to get its transmissions out of the car. So children – or for that matter any passengers -- in a car where a cell phone is being used can receive substantial doses of RF radiation.
- carry your cell phone away from your body, i.e., not in a pocket, on a belt, etc. It is transmitting and receiving even when not in use.

It is helpful to understand some of the basics of wireless technology that are the reason for the above recommendations. Cell phones broadcast in all directions looking for the nearest transmission tower. So when you use a cell phone, you are exposing everyone around you to RF radiation although the strongest signal is what is right next to your own head. Cell phone antenna sites broadcast 24/7, so if you live near one, you are being continuously exposed (and you may not even know it as these sites are often camouflaged in places like flagpoles, church steeples, or enclosures atop buildings. Your local government may have a comprehensive list of sites in your city or county).

You can find more information at <http://www.emrnetwork.org>. An excellent report released in 2009 is at: [http://www.radiationresearch.org/pdfs/reasons\\_us.pdf](http://www.radiationresearch.org/pdfs/reasons_us.pdf).