

# Consumer Information About Radio Frequency Emissions & Responsible Driving

## Consumer information

### Are Wireless Phones and Devices Safe?

Scientific research on the subject of wireless devices and radio frequency ("RF") energy has been conducted worldwide for many years, and continues. In the United States, the Food and Drug Administration ("FDA") and the Federal Communications Commission ("FCC") set policies and procedures for wireless devices. The FDA issued a website publication on health issues related to cell phone usage where it states that, while research is ongoing, "available scientific evidence – including World Health Organization ["WHO"] findings [in the Interphone study] released May 17, 2010 – shows no increased health risk due to radiofrequency (RF) energy, a form of electromagnetic radiation that is emitted by cell phones." The FDA also cites a separate National Cancer Institute program finding that, despite the dramatic increase in cell phone use, occurrences of brain cancer did not increase between 1987 and 2005. You can access the FDA website at <http://www.fda.gov/forconsumers/consumerupdates/ucm212273.htm>. You can also contact the FDA toll-free at (888) 463-6332 or (888) INFO-FDA. The FCC has its own website publication stating that "[t]here is no scientific evidence that proves that wireless phone usage can lead to cancer or other problems, including headaches, dizziness or memory loss." This publication is available at <http://www.fcc.gov/cgb/cellular.html> or through the FCC at (888) 225-5322 or (888) CALL-FCC. The National Cancer Institute ("NCI") states that concerns about the potential health effects of using cellular phones – "and specifically the suggestion that using a cell phone may increase a person's risk of developing brain cancer – are not supported by a growing body of research on the subject." You can access NCI's review of the research at [http://www.cancer.gov/ncicancerbulletin/nci\\_cancer\\_bulletin\\_092308/page7](http://www.cancer.gov/ncicancerbulletin/nci_cancer_bulletin_092308/page7). The WHO's Interphone study is the largest study of cell phone use and brain tumors ever undertaken. WHO summarized its conclusions concerning Interphone as follows: "Overall, no increase in risk of glioma or meningioma was observed with use of mobile phones. There were suggestions of an increased risk of glioma at the highest exposure levels, but biases and error prevent a causal interpretation. The possible effects of long-term heavy use of mobile phones require further investigation." The WHO's comments on Interphone are available at: [http://www.iarc.fr/en/media-centre/pr/2010/pdfs/pr200\\_e.pdf](http://www.iarc.fr/en/media-centre/pr/2010/pdfs/pr200_e.pdf). WHO's publication of Interphone is available at <http://ije.oxfordjournals.org/content/39/3/675.abstract>; see also, Interphone Appendix ([http://ije.oxfordjournals.org/content/suppl/2010/05/06/dyq079.dc1/Interphone\\_appendix2.pdf](http://ije.oxfordjournals.org/content/suppl/2010/05/06/dyq079.dc1/Interphone_appendix2.pdf)).

### What Does Specific Absorption Rate (SAR) Mean?

In 1996, the FCC, working with the FDA, the U.S. Environmental Protection Agency (EPA) and other agencies, established RF exposure safety guidelines for wireless devices in the United States. Before a wireless device model is available for sale to the public, it must be tested by the manufacturer and certified to the FCC that it does not exceed limits established by the FCC. One of these limits is expressed as a Specific Absorption Rate, or "SAR." SAR is a measure of the rate of absorption of RF energy in the body. Tests for SAR are conducted with the wireless device transmitting at its highest power level in all tested frequency bands. Since 1996, the FCC has required that the SAR of handheld wireless devices not exceed 1.6 watts per kilogram, averaged over one gram of tissue. Although the SAR is determined at the highest power level, the actual SAR value of a wireless device while operating can be less than the reported SAR value. This is because the SAR value may vary from call to call, depending on factors such as proximity to a cell site, the proximity of the wireless device to the body while in use, and the use of hands-free devices. For more information about SARs, see the FCC's OET Bulletins 56 ([http://transition.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)) and 65 ([http://transition.fcc.gov/bureaus/engineering\\_technology/documents/bulletins/oet65/oet65.pdf](http://transition.fcc.gov/bureaus/engineering_technology/documents/bulletins/oet65/oet65.pdf)). You may also wish to contact the manufacturer of your wireless device.

### Can I Minimize My RF Exposure While Using My Phone or Device?

If you are concerned about RF, there are several simple steps you can take to minimize your RF exposure. You can, of course, reduce your talk time. You can place more distance between your body and the source of the RF, as the exposure level drops off dramatically with distance. The FDA/FCC website states that “[h]ands-free kits can be used with wireless devices for convenience and comfort. These systems reduce absorption of RF energy in the head because the phone, which is a source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.” Also, if you use your wireless device while in a car, you can use a wireless device with an antenna on the outside of the vehicle. You should also read and follow your wireless device manufacturer’s instructions for the safe operation of your wireless device.

### Do Wireless Phones Pose Any Special Risks to Children?

The FDA website states that “[t]he scientific evidence does not show a danger to any users of cell phones from RF exposure, including children and teenagers.” The FDA website further states that “[s]ome groups sponsored by other national governments have advised that children be discouraged from using cell phones at all. For example, the Stewart Report from the United Kingdom [“UK”] made such a recommendation in December 2000. In this report a group of independent experts noted that no evidence exists that using a cell phone causes brain tumors or other ill effects. [The UK’s] recommendation to limit cell phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.” A copy of the UK’s leaflet is available at <http://www.dh.gov.uk> (search “mobile”), or you can write to: NRPB, Chilton, Didcot, Oxon OX11 0RQ, United Kingdom. Copies of UK’s annual reports on mobile phones and RF are available online at <http://www.iegmp.org.uk> and <http://www.hpa.org.uk/radiation/> (search “mobile”). Parents who wish to reduce their children’s RF exposure may choose to restrict their children’s wireless device use.

### Where Can I Get Further Information About RF Emissions?

For further information, see the following additional resources (websites current as of August 2012).

U.S. Food and Drug Administration FDA Consumer Magazine, November–December 2000 Telephone: **1.888.INFO.FDA** <http://www.fda.gov> (Under “c” in the subject index, select **Cell Phones > Current Research Results.**)

American National Standards Institute  
1819 L Street, N.W., Suite 600,  
Washington, D.C. 20036  
Telephone: **1.888.INFO.FDA**  
[www.ansi.org](http://www.ansi.org)

### Drive Responsibly

When behind the wheel, safe driving is your responsibility and it should always be your first priority.

Scientific research on the subject of wireless phone use and driving has been conducted worldwide for several years. According to the National Highway Traffic Safety Administration (NHTSA), the available research indicates that using a wireless phone while driving degrades a driver’s performance, whether it is a hands-free or hand-held wireless phone. NHTSA advises that the “safest course of action is to refrain from using a cell phone while driving.” NHTSA’s policy on “Cell Phone Use While Driving,” as well as Frequently Asked Questions on the subject, are available at [www.nhtsa.gov](http://www.nhtsa.gov) (click on “Driving Safety” then on “Distracted Driving”).

For your well being and the well being of those around you, you should consider turning your phone off and allowing calls to go to Voice Mail while you are driving.

If you choose to use your wireless phone while driving, several jurisdictions have adopted “hands-free” and other restrictions on the use of wireless devices while driving. It is your responsibility to know and to comply with the law in your area.