

NEW WARNINGS ABOUT THE HAZARDS OF CELL PHONES¹

Dr. Mercola[©]

Holding a cell phone against your ear, or putting it in your pocket, may be hazardous to your health – or so says the fine print on a little slip that you probably tossed aside when unpacking your phone. Apple says your iPhone should come no closer than 5/8 of an inch; BlackBerry recommends about an inch. Statistics show that, over all, there has not been a general increase in the incidence of brain cancer since cell phones arrived – but the average hides that fact that brain cancer has increased in the 20-to-29 age group while dropping for the older population.

According to the *New York Times*:

"The largest study of cell phone use and brain cancer has been the Interphone International Case Control Study ... The authors included some disturbing data in an appendix available only online. These showed that subjects who used a cell phone 10 or more years doubled the risk of developing brain gliomas, a type of tumor."

Meanwhile, the *Wall Street Journal* investigates various methods of cutting down the radiation your cell phone produces. However, they say the most effective one may be the simplest -- keep the phone away from your head and body.

This summer I purchased the Sprint EVO, which is one of the top Android phones, and I can tell you that it is clearly my favorite gadget. In my opinion, it is far better than any navigation device on ANY car and has loads of other useful tools. More than two-thirds of the time I don't use the phone for calls but when I do it is nearly always in speaker mode and I rarely ever hold the device or put it to my head.

We have had an exponential growth rate of cell phones and their numbers will continue to grow as the smart phone market expands. As the *New York Times* reported, there are 292 million wireless numbers in use in the United States, which is close to one for every man, woman and child. And as of June about 25 percent of U.S. households had given up their landlines in favor of going wireless-only. For many, NOT having a cell phone is viewed as virtually impossible. Today's cell phones are much more than phones. They can also be your camera, video recorder, hand-held computer, and your lifeline to staying in touch with your work and family.

Indeed, cell phones are extremely convenient and useful, and from a technology standpoint have changed the way humans interact and do business ... they're an incredible invention, really ... except for one nagging problem. They're likely going to trigger a brain cancer epidemic the likes of which the world has never seen.

Did You Know that Cell Phone Manufacturers Warn You to NOT Hold the Phone to Your Head?

Cell phones are so common nowadays that it may take you a minute to wrap your head around the fact that studies are showing they may not be safe. But remember, it wasn't long ago when

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doctors gladly endorsed cigarette companies and smoking was commonplace even in hospitals. Many are now suggesting that cell phones will be the cigarettes of the 21st century ... and one day we will look back on all the photos of people, including children, walking around pressing these radiation-releasing devices directly to our heads and wonder what we were thinking. But for now most people are in a state of ignorant bliss, assuming that cell phones must be safe if they're being used so extensively and there are no public health warnings about them.

The reality is, however, that even cell phone manufacturers do not advise using your cell phone the way you probably use it – pressed up against your ear. Many cell phones actually contain package inserts that warn you to hold the cell phone *away* from your head when in use. Apple recommends keeping your iPhone at least 5/8 of an inch from your head, while BlackBerry recommends about an inch. Why might these companies be quietly warning you to keep your phone away from your head?

New Research Shows Cell Phones are Dangerous

Devra Davis, PhD, professor, Department of Epidemiology at the Graduate School of Public Health, University of Pittsburgh has written a new book -- *Disconnect* -- in which she exposes research showing that radiation from cell phones has been linked to:

- DNA damage,
- memory loss,
- Alzheimer's disease,
- cancer,
- breakdown of the brain's defenses, and
- reduced sperm count.

Then there were the results of the massive Interphone study, which was meant to finally provide definitive evidence on the safety, or lack thereof, of cell phones. It cost more than \$30 million (funded in part by the mobile phone industry) to carry out, and involved nearly 50 scientists from 13 countries, along with more than 14,000 people. It turns out that the study was a massive PR campaign by the telecommunications industry to provide reassurance that cell phones are safe so they can continue to generate hundreds of billions of dollars of profits. That is why it is no surprise, now that the data has finally been released, that it turns out the study is seriously flawed. The study is filled with ludicrous and disturbing findings such as "heavy users" of cell phones have an approximately doubled risk of glioma, a life threatening and often-fatal brain tumor, after 10 years of cell phone use.

You might wonder why this is a ludicrous finding, but you will instantly understand once you learn that: their definition of a "heavy" user was someone who used a cell phone about two hours ... a month! What this means is that if you use your cell phone for two hours a month or more, you may be doubling your risk of a potentially fatal brain tumor. Use your cell phone significantly more than that, and your risk is likely much, much higher. This study does absolutely nothing to address the hundreds of millions of cell phone users who easily have exposure up to FIFTY times higher. Other studies too, like the review of 11 long-term epidemiologic studies published in the journal *Surgical Neurology*, have revealed that using a cell phone for 10 or more years increases your risk of developing a brain tumor. The 2009 special EMF issue of the *Journal of Pathophysiology* also contains over a dozen different studies on the health effects of wireless technology and electromagnetic fields.

Just Like Cigarettes, It Will be Decades Before the Real Effects Show Up

It is still too soon for most cell phone-induced brain tumors to show up. Just as people don't get lung cancer a few weeks or months into their smoking habit, there is a delayed effect between cell phone usage and brain tumor development that typically is over 10 to 20 years. Of course, not everyone who smokes gets lung cancer, and not every cell phone user will develop brain cancer. There are many variables that contribute to susceptibility. For instance, children and teens are among those MOST at risk because their younger skulls are thinner and their growing brains much more susceptible to radiation exposure. One study even found that children and teenagers are five times more likely to get brain cancer if they use cell phones -- so why risk it?

SAR Values are Not a Valid Measure of Safety

There's been a lot of talk lately about cell phones' SAR values, which is simply a measure of the power of your cell phone and its potential for heating your tissues. Values vary from one model to the next, starting around 0.2 watts, but the maximum allowable SAR rate is 1.6 watts per kilogram for phones sold in the United States. This guideline is based on the exposure from a six-minute phone call. Although knowing your phone's SAR value is a good first step, it is by no means an absolute measure of safety. As Camilla Rees, founder of ElectromagneticHealth.org explains:

"The cell phone SAR value does not accurately reflect the potential for biological harm from the frequencies of the communication, and, very importantly, there are also some biological effects that have been shown to be worse at lower SAR values compared to higher SAR values, such as blood-brain barrier permeability."

So it's important to realize that you simply cannot rely on the SAR value alone when gauging cell phone safety. Rather, know that safety is dependent on how you use your cell phone.

What are the Safest and Most Dangerous Ways to Use a Cell Phone?

The most dangerous manner of use is to place the phone against your head. The best way to decrease your exposure to radiation is to use either the speakerphone or a safe headset when speaking on the phone, and to keep your phone as far away from your body as possible whenever it is on. You should never carry your phone in your shirt pocket or on your belt, for example.

San Francisco legislation now actually *requires* education about such cell phone risks at the point-of-sale. Educational materials must "inform customers of actions that can be taken by cell phone users to minimize exposure to radiation, such as turning off cell phones when not in use, using a headset or speaker phone and texting." (Lines 15-17 of the final legislation.) The Washington Post also reviewed a few products meant to minimize radiation exposure, such as a T-shirt and blanket that contain silver fibers to help block cell phone radiation, which are meant for use by pregnant women. There are also special cases on the market that contain pieces of gold designed to pull radiation away from your head and release it from the back of the phone. These options may help cut back on your exposure, but the simplest way to really minimize your risk is to keep the phone as far away from your head and body as possible, as much as possible. I also recommend that everyone who uses a cell phone follow these commonsense guidelines:

- **Children Should Always Avoid Using Cell Phones:** Barring a life-threatening emergency, children should not use a cell phone, or a wireless device of any type. Children are far more vulnerable to cell phone radiation than adults, because of their thinner skull bones and other factors.
- **Reduce Your Cell Phone Use:** Turn your cell phone off more often. Reserve it for emergencies or important matters.
- **Use a Land Line at Home and at Work:** Although more and more people are switching to using cell phones as their exclusive phone contact, it is a dangerous trend and you can choose to opt out of the madness.
- **Reduce or Eliminate Your Use of Other Wireless Devices:** You would be wise to cut down your use of these devices. Just as with cell phones, it is important to ask yourself whether or not you really need to use them every single time. Even portable home phones, including the older kind that operate at 900 MHz, can be a problem. The lesson from the field is that all DECT portable phones are a problem.

If you do not know if you have a DECT phone (as many are not labeled as such), the ONLY way to know for sure is to measure. You can learn about measuring instrumentation at www.emfsafetystore.com. For "hands free" calls at home, I recommend getting the old-fashioned speakerphone (either attached to the phone or separate) or using SKYPE on your computer on speaker mode, which is terrific.

- **Use Your Cell Phone Only Where Reception is Good:** The weaker the reception, the more power your phone must use to transmit, and the more power it uses, the more radiation it emits, and the deeper the dangerous radio waves penetrate into your body. Ideally, you should only use your phone with full bars and good reception. Also seek to avoid carrying your phone on your body as that merely maximizes any potential exposure. Ideally put it in your purse or carrying bag.
- **Turn Your Cell Phone Off When Not in Use:** As long as your cell phone is on, it emits radiation intermittently, even when you are not actually making a call.
- **Keep Your Cell Phone Away From Your Body When it is On:** The most dangerous place to be, in terms of radiation exposure, is near the emitting antenna. You do not want any part of your body near this area and proximity is everything. The closer the phone is to your body, the worse the exposure -- with the exposure falling off dramatically with distance. Thus, using the speaker mode, the farther you can keep the phone away from your body and still hear the call, the better.
- **Use Safer Headset Technology:** Wired headsets will certainly allow you to keep the cell phone farther away from your body. However, if a wired headset is not well-shielded -- and most of them are not -- the wire itself acts as an antenna attracting ambient radio waves and transmitting radiation directly to your brain and your body, for example over your heart.

Make sure that the wire used to transmit the signal to your ear is shielded. The best kind of headset to use is a combination shielded wire and air-tube headset. These operate like a

stethoscope, transmitting the information to your head as an actual sound wave; although there are wires that still must be shielded, there is no wire that goes all the way up to your head.