



## *Cell Phone Research and Tips for Safety*

**By Jacqueline Fields, MD and founder of Dr. Fields' Sacred Skin | November 2014**

### ***1. Buy a low-radiation phone.***

When you pick up your phone and make a call, that call is transmitted and received via the phenomena of electromagnetic waves.

In 2009, it was estimated that more than 4 billion people used cell phone technology (ITU 2009). However, because this technology has only been around for about twenty years, scientists do not fully understand the repercussions and long-term risks associated with cell phone radiation emissions.

As time passes, newer and more advanced phones, such as the more popular smartphone models, are being developed with increasing degrees of cell phone radiation emissions. The Environmental Working Group, a team of scientists, educators, engineers, and lawyers, is a public health lobby group that gets quite a bit done in United States legislature by making little known public health concerns more public. Consult their buyer's guide for a low-emission phone and consider replacing yours with one that they recommend. EWG Buyer's Guide: <http://www.ewg.org/cellphoneradiation/Get-a-Safer-Phone>

### ***2. Choose texting over talking.***

Research has confirmed that during transmission time, a considerable amount of radiation travels inward toward the ear and head of the cell phone user.

Several recent studies show a correlation between cell phone radiation emission and conditions involving the brain or within the region of the head. EWG reports that:

- Brain Cancer: Two analyses of 25 original publications identified a 50-90% increase in risk for two types of brain tumors: glioma and acoustic neuroma (Hardell 2009, Kundi 2009).
- Salivary Gland Tumors: An Israeli study found an increased risk of 50-60% for salivary gland tumors among people with the highest cell phone use (Sadetzki 2008).
- Behavioral Problems: A study of 13,159 Danish children showed an 80% elevated risk for emotional and hyperactivity problems among young children who used cell

phones and whose mothers also used cell phones during pregnancy (Divan 2008).

- Migraines and Vertigo: A study of 420,095 Danish adults showed that long-term cell phone users were 10-20% more likely to be hospitalized for migraines and vertigo than people who took up cell phones more recently (Schuz 2009).

### ***3. Use a headset or speaker. Keep the phone away from the body.***

Of the total radiation emitted towards the head, 97-99% is absorbed into the brain hemisphere on the side where the cell phone is used. Which area receives the highest radiation exposure? The temporal lobe. This area is involved in hearing, auditory processing, formation of long-term memory, speech, and vision (Cardis 2008).

If a phone is worn near the waist, as is often the case when a headset is used, the outgoing radiation is absorbed by the soft tissue located there and could also cause health issues (Agarwal 2009; Swiss Federal Office of Public Health 2009c; Whittow 2008).

The latest research is still in debate on whether wireless or corded headsets are better for your health.

Recently, a wireless tube headset device was developed. It uses a patented sound delivery process that allows sound to travel through an air-filled wireless tube. There are a few manufacturers that use this technology, and an online search will give you several options for a retail outlet.

### ***4. Use only when there is a strong signal.***

The base station, or cell phone tower, and the physical objects between the cell phone and the base station, largely affect cell phone transmissions. In order to overcome these physical objects and distance, a cell phone will transmit at a greater power. An extreme, though common, example is a rural area that has few cell towers. Cell phone use in these areas requires transmission at a greater power, meaning stronger cell phone emissions.

If signal bars are low on your cell phone, wait to use your phone until you have a stronger signal.

Note: Radiation shields, such as antenna caps or keypad covers, actually create an interference, reduce the connection quality, and force the phone to transmit at a higher power with higher radiation.

A radiation shield is not the same as hologram-encoded devices that neutralize electromagnetic waves.

## 5. Limit your child's phone use.

Just say no to letting your child talk on a cell phone! A Swedish study has confirmed that there is the highest risk of brain tumors among people who began using cell phones in adolescence.

The research surrounding children and health risks associated with cell phone use is staggering - mainly because cell phone emissions are particularly hazardous to young children, and yet the market is ever-growing toward this generation. The basic idea with children and their parents is that cell phone use is easy and mobile, and therefore a great "safety" tool. This is true if used only in emergency situations and by also following safety guidelines.

- Research by France Telecom scientists showed that under standard conditions of use, twice as much cell phone radiation would penetrate a child's thinner, softer skull than an adult's.
- These results confirm earlier findings, from 1996 and 2002, that a child's head absorbs more radiofrequency radiation than an adult.
- A 2008 study of 13,159 Danish children showed that young children who use cell phones and whose mothers also used cell phones during pregnancy are 80% more likely to suffer from emotional and hyperactivity problems.
- Multiple studies reported that the brains of young children absorb more radiation than those of adults, making them more susceptible to brain tumors.
- Researchers in Sweden found the highest risk of brain tumors among people who started using cell phones during adolescence (Divan 2008; Gandhi 1996; Hardell 2009; Kang 2002; Martinez-Burdalo 2004; NRC 2008b; de Salles 2006; Wang 2003; Wiart 2008).
- Health agencies in six nations have recommended reducing children's exposure to cell phone radiation: France, Germany, Israel, Switzerland, and United Kingdom.
- In 2008, European Parliament passed a resolution that urged members to develop lower cell phone radiation emission limits. Legislation introduced in the French Senate would ban marketing and sales of phones for children under 6 years old. Children are more sensitive to cell phone radiation emissions than adults because their bone tissue is less dense. Additionally, the brain of a child is still developing, and its nervous tissue can absorb a greater amount of radiation than an adult.

In a nutshell: keep your kids away from cell phones. If you are pregnant, considering eliminating cell phone use.

Dietary steps that help mitigate exposure to cell phone emissions.

What you eat actually can help alleviate some of the stress put on the body from electromagnetic waves. These foods protect against oxidation:

- Foods rich in Vitamin C (ascorbic acid) and Vitamin E (tocopherals).

- Glutathione, another antioxidant, and herbs, such as cordyceps, which promotes the glutathione recycling process.
- Polyphenol antioxidants. These are phytochemical-bearing foods, such as green tea, Body Ecology grains, most berries, green apples, broccoli, cabbage, celery, and parsley.
- Vitality SuperGreen is an excellent source of polyphenol antioxidants, which have additionally been fermented.
- Probiotic Beverages. Beneficial bacteria used in the fermentation process are naturally found in a healthy gut. These microbes modulate the immune system, break down toxins and carcinogens, create micronutrients and prevent pathogenic bacteria from taking up residence, and help defend the body against oxidative stress.

***What To Remember Most About This Article:***

The research surrounding cell phone use is shocking, to say the least. New smartphones are now being developed with increased degrees of cell phone radiation emissions. Here are 5 simple tips that you can use to protect the health of you and your family when it comes to wireless communication:

1. Buy a low radiation cell phone.
2. Text instead of talk as often as possible.
3. Use speakerphone or a headset, and keep your phone away from your body.
4. Only use your phone if you have a strong signal.
5. Limit your child's cell phone use.

This last tip is especially important since almost two times as much cell phone radiation can penetrate a child's thinner, softer skull as opposed to an adult's to cause serious health risks in the future.

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