

## PLAIN TALK ABOUT CELL PHONE SAFETY

22 September 2009

It is time for some plain talk about what you can do immediately to reduce possible risk of malignant brain tumor (glioma) and acoustic neuroma (a tumor of the auditory nerve in the brain) if you use a cell or cordless phone.

Recent articles by the Environmental Working Group (EWG) - *Cell Phone Radiation Science Review* - and Lloyd Morgan's "*15-Reasons for Concern*" have helped to spread the word about long-term cell phone use that may have dire health consequences down the road. Both reports have generated much-needed publicity on this issue, so consumers can start thinking about what choices they have, and what they can do.

### What You Can Do Now

- 1) Reduce your use of cell and cordless phones. Remember you have perhaps 2000 minutes (cumulative life-time) before you are in the heavy-user category and at statistically-significantly increased risk for glioma.
- 2) Don't hold a cell phone or cordless phone at your head.
- 3) Use a wired earpiece or headset (hollow tube is preferable).
- 4) Use speaker phone mode.
- 5) Text more - don't talk.
- 6) Use corded telephones for regular calls, longer calls, as your "first phone".
- 7) Remember, by itself, using a low-SAR phone does NOT mean you can talk safely on your cell.

Lower-radiation cell phones are useful IN COMBINATION with the above, but using a low-SAR phone is not sufficient alone. Multiple studies have reported that as short as a single, two-hour exposure to cell phone radiation will result in pathological leakage of the blood-brain barrier. The effect occurs immediately, and is still seen at 14 days and at 50 days post-exposure at only 0.012 W/Kg. The lowest exposure SARs were worse than the higher SAR exposures (Nittby et al, 2009). These studies show neuron death (brain cells) at SARs of only 0.012 W/Kg, less than at higher exposure SARs. So, how low an SAR is acceptable?

The top-10 low-radiation cell phones on EWG's SAR website list range from 0.35 to 0.55 W/Kg or 29 to 46 times that level of cell phone radiation linked to blood-brain barrier effects.

<http://www.ewg.org/project/2009cellphone/cellphoneradiation.php>

So, low SAR is good to send a message to industry that you care about cell phone safety.  
- but choosing a low SAR phone is going to help you avoid potential risks ONLY if you also reduce your cell phone calls in duration and number, use speaker phone, text more

than talk, and use a wired earpiece (not a wireless earpiece). Children should not use them at all.

### Other Information You Should Know

Those with glioma diagnoses have a poor prognosis and the average life expectancy is just over 400 days. A terrible disease for which we have growing evidence of risk - and a disease that may be in part avoidable by doing small things in your daily life.

Increased brain tumor risk has been associated with cell phone use in nearly all studies at 10 years and longer, particularly when the phone is used mainly on one side of the head or ipsilateral use (see meta-analyses by Kan et al, 2008; Hardell et al, 2009). The same is true for cell phone use and acoustic neuroma. Cordless phone use has been reported in some studies to be associated with increased risk of both types of tumor as well.

Adult risks are about double (about a 200% increased risk) at 10 years and longer cell phone use. Children who begin using cell phones in their teen years have more than a five-fold (500%) increased risk of glioma by the time they are in their 20's.

The early publications from the European Interphone study groups report that brain tumor risk increases at 10 years and longer use. Where ipsilateral use is recorded, even higher risks show up.

The final summary report of the Interphone Group is expected any day. The BioInitiative Working Group will analyze results and provide commentary, which you will see here at CHE-EMF as soon as it is available. We hope that the final report will contain clear and accurate conclusions about specific risks at 10 years and longer. But, we are watching carefully at the way in which these conclusions are presented. With the deep divisions among the many Interphone authors about the overall meaning of the 13-country team studies, it would be disappointing but not unexpected to have the meaningful results buried in some "all clear" message. That is possible if the 10-year ++ results will be diluted by combining these data with short-term latency studies of brain tumors that would not be expected to show anything so early.

We will keep you posted.

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#### Ref:

Nittby, Henrietta, Grafström, Gustav, Eberhardt, Jacob L., Malmgren, Lars, Brun, Arne, Persson, Bertil R. R. and Salford, Leif G. (2008) 'Radiofrequency and Extremely Low-Frequency Electromagnetic Field Effects on the Blood-Brain Barrier', *Electromagnetic Biology and Medicine*, 27:2, 103 — 126