



Mobile Phones and Children

Do mobile phones pose any health risk for children?

This question, raised on a number of occasions reflects the concern we all have for children and their wellbeing. It also reflects how important mobile phones have become to our everyday lives.

It is important to know the following about mobile phones:

- Mobile phones operate in accordance with international limits on radio wave exposure.
- These standards and guidelines are based on detailed, independent evaluations of a substantial scientific database of studies related to radio waves and health.
- Scientific expert reviews and government agencies have been consistent in concluding that these guidelines are reliable safeguards for all segments of the population, including children.

Questions about the use of mobile phones by young people resulted from the May 2000 report of a review panel commissioned by the U.K. government, the Independent Expert Group on Mobile Phones (IEGMP).¹ The IEGMP reasoned that if there was an - as yet undiscovered - risk it could affect young people more than adults because of the status of their physical development and the prospect of longer lifetime phone usage. They therefore advised against "non-essential" use by children. In a January 2005 update, the U.K. National Radiological Protection Board (NRPB) said that the IEGMP recommendation to limit usage by children "remains appropriate as a precautionary measure."²

Based on the IEGMP report the U.K. government provided funds for a program called "Mobile Telecommunications and Health Research" (MTHR). The program report³, published in September 2007, states that "Mobile phones have not been found to be associated with any biological or adverse health effects according to the UK's largest investigation into the possible health risks from mobile telephone technology."⁴ However, more research was recommended and in a second phase of the program RF exposure on children is being investigated further.

On the U.S. Food and Drug Administration (FDA) website it is stated: "The scientific evidence does not show a danger to users of wireless phones, including children and teenagers."⁵

¹ <http://www.iegmp.org.uk>

² http://www.hpa.org.uk/radiation/publications/documents_of_nrp/abstracts/absd15-5.htm

³ <http://www.mthr.org.uk/>

⁴ http://www.mthr.org.uk/press/p7/p7_2007.htm

⁵ <http://www.fda.gov/cellphones/qa.html#22>



Other authorities have adopted a similar view to that of the FDA:

- World Health Organization (WHO): "International guidelines have been developed to protect everyone in the population: mobile phone users, those who work near or live around base stations, as well as people who do not use mobile phones."⁶
- Health Council of the Netherlands: "the [expert] committee feels that there are no health-based reasons for limiting the use of mobile phones by children."⁷

In a January 2008 statement, the French Health Ministry confirmed that, to date, there is no scientific evidence demonstrating that the use of mobile phones, either by adults or children, presents any significant health risk. Nonetheless, it recommended a policy of careful avoidance. "As the hypothesis of a risk cannot be entirely excluded, precaution is justified," the Ministry said⁸. As data for very long use are sparse the Ministry called parents to prevent children from excessive use of mobiles.

It is important to note that since 2000 about 30 reports by expert panels and government agencies⁹ from around the world have agreed that the scientific evidence does not demonstrate any actual health risks from the use of mobile phones operating within international guidelines and this is true regardless of age.

The WHO position on children and health is found in Fact Sheet 193: "Present scientific evidence does not indicate the need for any special precautions for the use of mobile phones. If individuals are concerned, they might choose to limit their own or their children's RF exposure by limiting the length of calls, or by using "hands-free" devices to keep mobile phones away from the head and body."¹⁰ In 2005, WHO issued a clarification¹¹ confirming that the information provided in the above-mentioned fact sheet remains valid.

In June 2008, a paper by Wiart *et al.*¹² was published describing calculations of the RF power absorbed in head models of children and adults from antennas operating at mobile telephone frequencies. This absorbed power is expressed as specific absorption rate, abbreviated SAR. The authors found "that the differences between the maximum SAR over 10 g estimated in the head models of the adults and the ones of the children are small compared to the standard deviations." This result is consistent with the published literature showing that the maximum SAR due to mobile telephone emissions is about the same in children and adult heads when

⁶ http://www.who.int/docstore/pehemf/publications/facts_press/efact/efs193.html

⁷ <http://www.gr.nl/pdf.php?ID=886>

⁸ <http://www.sante-jeunesse-sports.gouv.fr/actualite-presse/presse-sante/communiqués/telephones-mobiles-sante-securite.html>

⁹ <http://www.gsmworld.com/health/links/independent.shtml>

¹⁰ <http://www.who.int/mediacentre/factsheets/fs193/en/index.html>

¹¹ http://www.who.int/peh-emf/meetings/ottawa_june05/en/index4.html

¹² <http://www.iop.org/EJ/abstract/0031-9155/53/13/019>



using the tissue mass (10 g) defined in internationally accepted exposure (e.g., ICNIRP) and measurement standards.

When using a smaller tissue mass, Wiart *et al.* found that "...the maximum SAR in 1 g of peripheral brain tissue of the child models aged between 5 and 8 years is about two times higher than in adult models;"¹² However, these calculations are not relevant to RF safety standards because they are based on procedures different from the internationally recommended SAR averaging methods.

Consumers should note that all mobile telephones on the market are designed so that the peak SAR values in the head, including the brain, of both adults and children are below safe exposure limits.

While the political and scientific discussion will continue, it is clear that parents are deciding for themselves whether their children should use a mobile phone or not. By and large, parents appear to be allowing their use because of the perceived benefits in terms of safety and security that mobile phones provide for both children and parents. For our part, we believe that there is a strong scientific basis for all consumers to have confidence in the safety of mobile phones, and we certainly support parents deciding for themselves whether they want their children to use a mobile phone or not.

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