

Cell phones and Your Health

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Cell phones now come in child-sized versions, some in pink for girls, some with cartoon themes designed to appeal to boys and girls alike.

But before you buy a wireless phone for your child's next birthday, you should know that government agencies and expert panels in several European countries have cautioned against routine use of the phones by children because of health questions raised by recent studies.

Some experts say research conducted during the past decade indicates the world's 1.6 billion cell phone users are the equivalent of lab rats in a grand living laboratory and that children, with many years of cell phone use ahead of them, might be particularly vulnerable.

"There is evidence from the laboratory that isn't necessarily conclusive, but does point to a possible problem in the future," said Norbert Hankin, an environmental scientist in the U.S. Environmental Protection Agency's Office of Radiation and Indoor Air, who has studied the effects of radio frequency/microwave radiation for 33 years. He says some of the research findings are "worrisome."

"Once people start using cell phones, they don't change," Hankin said. "Kids 10 years old are using cell phones. Is there going to be any kind of effect long term? We don't know."

Research about cell-phone use hasn't received the same media or public attention as other environmental health issues. But scientists are engaged in an escalating debate over the potential risks -- a debate that some researchers say parallels early public-health disputes about second hand smoke and toxic chemicals.

Wireless phones emit low-level radio frequency/microwave radiation as they transmit a signal to a base station blocks or miles away. Research has shown that some of the radiation enters the user's head, and some researchers are concerned repeated exposures over time might pose serious health risks, including cancer and benign tumor growth.

Two U.S. agencies with authority to regulate the radiation emitted by the phones, the Food and Drug Administration and the Federal Communications Commission, have issued statements saying there is nothing to fear from the phones, and that they are safe for children.

Joe Farren, a spokesman for CTIA-The Wireless Association -- the international group representing carriers, manufacturers and wireless Internet providers -- cites the FDA and FCC stances in saying the industry is offering a safe product to children and their parents.

"This is an issue that should be guided by science, period. And the evidence does not show a danger to users of wireless phones," Farren said. "What we constantly hear from parents is that they have a tremendous peace of mind when they give their child a phone."

Farren said some models for children allow parents to control the phone numbers their kids can call and block unwanted callers, as well as control the total number of talk minutes allowed, and the time of day the phone is operational.

Walt Disney Internet Group announced in July it had created Disney Mobile and is teaming with Sprint to provide cell phones for "the family mobile market" beginning next year. Disney withdrew cell phone faceplates featuring its Mickey Mouse and other cartoon characters about six years ago when health concerns were raised by cell-phone research.

"The FDA has said that scientific evidence does not show a danger to users of wireless," said Disney spokeswoman Kim Kerscher.

But Hankin said it is not clear how protective current safety standards are because they are based on preventing the radiation from heating tissue and do not take into account research that has shown biological changes, such as DNA breaks, at much lower levels of exposure.

He also expressed concern about epidemiological studies that have linked long-term cell phone use to an increased risk of acoustic neuroma, a non-malignant tumor on a nerve that links the ear and brain.

Research findings

Last fall researchers at the Karolinska Institute in Sweden reported that people who had used cell phones for 10 years had almost a fourfold increase of these tumors on the side of the head where they most often held the phone, compared with the other side of the head.

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A group of researchers from several European countries has found DNA damage in human and animal cells exposed to cell-phone radiation, and said mutations were passed on to the next generation of cells grown in the laboratory -- a process that can lead to cancer.

The research, led by Dr. Franz Adlkofer, of the Verum Foundation in Munich, Germany, was published in the June 6 issue of Mutation Research.

"We don't want to create a panic, but it is good to take precautions," Adlkofer said when the study was released. He and other health experts recommend using a landline phone whenever possible, and using a hands-free headset when talking on a cell phone.
