

Pediatric researchers suggest potential dangers for children from cellphone exposure

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Doctors and scientists from Harvard and Yale medical schools warned Tuesday that pregnant mothers limit their unborn babies exposure to potentially harmful radiation by keeping cellphones away from their tummies because of the possible effect on brain development.

The doctors offered the advice during the Pediatric Academic Societies annual meeting in Baltimore where they also said parents should limit their children's use of cellphones, iPads and other wireless technology because it can cause behavioral and concentration problems.

There is little research on the effect of the [microwave radiation](#) and radio frequency radiation emitted by wireless devices on children, but

the doctors said early studies provide enough evidence to suggest that parents should take caution.

The doctors' comments could stoke a longtime debate over the health dangers of cellphones, but the industry disputed their warning.

The CTIA, the association representing the U.S. wireless communications industry, including carriers, suppliers and manufacturers, cited a Food and Drug Administration statement that there is not enough evidence to show that cellphones can cause a health risk.

"CTIA and the wireless industry defer to the scientific community when it comes to cellphones and health effects," the group said in a statement. "The peer-reviewed scientific evidence has overwhelmingly indicated that [wireless devices](#) do not pose a [public health risk](#) for adults or children."

The group said that, in addition to the FDA, the World Health Organization, American Cancer Society and numerous other international and U.S. organizations and health experts, have said the scientific evidence shows no known health risk because of the radio frequency energy emitted by cellphones.

"The FCC has determined that all wireless phones legally sold in the United States are 'safe,'" the association said. "The FCC monitors scientific research on a regular basis, and its standard for RF exposure is based on recommended guidelines adopted by U.S. and international standard-setting bodies."

Still, the International Agency for Research on Cancer has classified both microwave radiation and radio frequency radiation as a "possible" human carcinogens, the researchers at Tuesday's conference said.

They also presented early research that they say may prove an even bigger correlation.

In one study, Dr. Hugh Taylor, chair of obstetrics, gynecology and reproductive sciences at Yale School of Medicine, put cellphones on the top of cages containing pregnant mice. He then studied the behavior of the offspring and found that they had decreased memory and were hyperactive.

"They weren't paying attention to their surroundings," Taylor said in a web call during Tuesday's conference. "They were very hyperactive. They were bouncing off the walls without a care in the world."

Dr. Martha Herbert, with Harvard University and Massachusetts General Hospital, looked at the biological factors that can go wrong in autism and found a strong correlation with the electromagnetic field of Wifi. The fields disturb calcium signaling in the brain, which is supposed to regulate the flow of information at the cell membrane going into the nucleus, she said in a phone interview after her presentation.

"It can make the brain get too excited and irritated," Herbert said. "It is not inconceivable that it can cause (autism), but there are other factors that can play a role. It certainly can aggravate it."

In other research, brain models and computer simulations show that children absorb 10 times more microwave radiation than adults because a child's skull is thinner and smaller.

Parents should not panic over the research, said Dr. Stephen J. Thompson, medical director of the division of pediatric neurology at the University of Maryland Medical Center. But, he said, it also shouldn't be dismissed.

"These are good studies being done by reputable people and presented at a national conference that is considered one of the best to disseminate this information," said Thompson, also an associate professor at the University of Maryland School of Medicine. "But to overact and go into panic mode is not necessarily the wisest choice."

Thompson said that it is good practice anyway to limit children's exposure to screen time. It is always better to read a book or send a child outside to play if given the choice, he said. The studies give scientists reason to look in to the issue more, he said.

At Tuesday's conference, the researchers were joined in their warning by the head of the Environmental Health Trust, a Wyoming-based group that examines and advocates about environmental health hazards, including those it says are caused by wifi and cellphones.

"As a scientist, I can tell you we have a lot of uncertainty; there is no a question about that," said Devra Davis, the trust's founder. "But as a grandmother, I can tell you we have enough knowledge that we cannot continue to experiment on our children."

While more study is needed, the researchers said parents can take simple actions to prevent exposure.

For instance, Yale's Taylor said he always encourages his pregnant patients to keep phones away from their stomachs. The researchers also said people should not put phones in their pockets as the radiation could cause impotence or low sperm count. Women shouldn't keep it in their bras or shirt pockets. Also, don't put wireless baby monitors near babies' heads.

Sometimes it can take years for research to get done, the researchers said.

"Science is like a crossword puzzle," Herbert said. "You can make a judgment far before every last thing is straightened out."

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