Family Matters
By Bonnie Rochman

Childhood

Pediatricians Say Cell Phone Radiation Standards Need Another Look

By Bonnie Rochman July 20, 2012 10 Comments

Lynn Koenig / Flickr / Getty Images

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It's been 18 years since the U.S. government assessed the standards for cell phone radiation. That was back in 1996, long before the practice of giving your big kid a cell phone became as common as giving your little kid a bath. Both cell-phone technology and cell-phone use have changed in the interim, which is why last week the American Academy of Pediatrics (AAP) urged the Federal Communications Commission (FCC) to reconsider its radiation standards.

Current guidelines specify that the specific absorption rate (SAR) — the amount of radiofrequency (RF) energy absorbed by the body when using a cell phone — can't exceed 1.6 watts per kilogram. The standard tells cell-phone makers how much radiation their products are allowed to emit. This all sounds pretty technical; why, you may wonder, is the AAP getting involved in deliberations over RF and SARs? It comes down to children's health and well-being, writes AAP President Dr. Robert Block, who notes that standards are based on the impact of exposure on an adult male, not on women or kids:

Children, however, are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. In fact, according to [the International Agency for Research on Cancer], when used by children, the average RF energy deposition is two times higher in the brain and 10 times higher in the bone marrow of the skull, compared with mobile phone use by adults.

Yikes. Parents, run, don't walk, to buy your tween a headset.

The AAP's appeal has a history: previous research has raised questions about whether exposure to radiation from mobile phones can lead to brain cancer. And last month, FCC chairman Julius Genachowski formally proposed an inquiry into radiation standards in cell phones and other wireless devices.
The FCC is also looking into whether emissions standards should be adjusted for the types of devices that are used mostly by kids, which makes sense. But Block points out that standards for all cell phones — even those not aimed at children or teens — need to "be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes."
Given his target audience, Block couldn't resist highlighting more than physical health concerns. He also brought up the downside of too much time spent using cell phones, computers, televisions and other devices.

The Academy has found potentially negative effects and no known positive effects of media use by children under the age of 2, including television, computers, cell phones and other handheld wireless devices. In addition, studies consistently show that older children and adolescents utilize media at incredibly high rates, which potentially contributes to obesity and other health and developmental risks. In reviewing the SAR limit, the FCC has the opportunity to improve the health of our nation by highlighting the importance of limiting screen time and media use for children and adolescents.

(**MORE:** Study: Could Cell-Phone Use in Pregnancy Affect Kids' Behavior?)

The AAP is not recommending a SAR standard, says Dr. Jerome Paulson, chair of the AAP's council on environmental health and a pediatrician at Children's National Medical Center in Washington, D.C. "We don't have any preconceived notions about how much is too much," says Paulson. "But we know in general that children are more vulnerable to environmental hazards."
Until there's more clarity, Paulson recommends doing what comes naturally to many kids: text. That way the cell phone isn't near a child's head. For phone conversations, use a hands-free device. And pregnant women, take care not to carry your cell phone in a pocket near your abdomen.

MORE: 5 Easy Ways to Reduce Your Cell Phone Radiation Exposure

Bonnie Rochman is a reporter at TIME. Find her on Twitter at @brochman. You can also continue the discussion on TIME's Facebook page and on Twitter at @TIME.

Bonnie Rochman @brochman
Bonnie Rochman writes about pregnancy, fertility, parenting — the ups and downs of being a kid and having one — for TIME.
by Taboola

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ClaudiaJimenaSainzdeZenteno
Mar 25, 2013
I read that the cell phones emit a dangerous non-ionizing form of electromagnetic radiation; radiation which can be absorbed by the tissues and cells which come into close contact with the phone.That's why I investigated ways to cell phone radiation protection .In the end though, I found a couple of reviews of Pong Research's cases, that convinced me to give it a try. This case is built with an antenna in between layers of the back cover, which reduces exposure to radiation while optimizing the mobile reception.
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Susan Brinchman
Jul 22, 2012
This month (july 12) the American Academy of Environmental Medicine (AAEM) also issued recommendations for people with various medical conditions to avoid RF radiation, including pregnant women and those with heart conditions. They went so far as to recommend that smart meters be removed from homes on medical grounds. View this document on http://aaemonline.org/AAEMEMFm... and learn more at Center for Electrosmog Prevention. The pediatricians are on the right track.
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dariusz_leszczynski
Jul 20, 2012
Can we rely on evaluation of science by the committees currently in place? In the context of the ongoing ICNIRP amp; WHO evaluation of scientific evidence and the FCC revision of the safety standards, we need an urgent change in the copmosition of the evaluating committees.
See column in The WashingtonTimes.com Communities: "In Experts We Trust"...or should we?
http://communities.washingtont...
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Sick Fromme
Jul 20, 2012
India to lower cell tower limits by a factor of ten despite having existing standards lower than the US'
http://articles.economictimes....
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SafeinSchool.Org
Jul 20, 2012
Cellphone is not the only problem. As the parent of an 8-year-old, I am faced with School Boards implementing WiFi in all public schools. I am not just talking about the 24/7 background radiation from the WiFi routers. I am talking about schools forcing children to use wireless laptops and iPads in the classrooms, for hours a day, downloading simultaneously. Each laptop or tablet has a client card which is a transmitting antenna. These devices are placed in close contact with the children's bodies, often on their laps against their reproductive organs. We have measured the radiation from WiFi-enabled laptops and iPads. Even though the microwave signals from these devices peak about once every three seconds and are not as continuous as cellphones on talking transmission, the PEAK level radiation of these WiFi'd devices are several times HIGHER than cellphones on talking transmission, and children (and adults) are using these for internet browsing over much longer hours than most would hold cellphones next to their ears.
To date, no published study has measured the contact-level radiation from WiFi devices, and all published studies only report the average radiation level. They do not report peak levels. Our medical officers in BC, Canada, cited the WiFi-Alliance-sponsored Foster 2007 study to School Boards as reference for the

"safety" of WiFi. It makes no sense, because that study measured radiation from a laptop at "1 meter and further distances", and specifically stated, "The user of a laptop would be exposed to stronger fields than reported here, particularly if the antenna in the client card were close to the user's body. No attempt was made in this study to assess near-field exposures to a user of the laptop itself.""if the AP or client card were transmitting with a high duty cycle, its output would be comparable to that of a mobile telephone in use." School Boards across Canada and US have spent millions of dollars installing WiFi and politicans don't want to make any change. While the "consensus" in science might take decades to achieve, or not, my child and all children of her generation are FORCED under this unnecesssary exposure even though there is the safer, wired, option to computer networking. I am very happy that doctors at the American Academy for Environmental Medicine, and now, American Academy of Pediatrics, are calling for PRECAUTION. As parents we must WAKE UP and do our best to protect our children's health.
Please also see this:
Medical Associations, medical doctors and leading international scientists call for the safe use of technologies for children. http://wifiinschools.org.uk/re...
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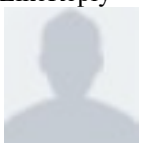

Mac Kull
Jul 20, 2012
Correct me if I am wrong, but "The Specific Absorption Rating Standard" (SAR standard) is set by the military, wireless manufacturers and service provider and they use an unrealistic human model to set the SAR ratings. The model they use does not necessarily fit the average human, but rather someone of height 6 foot 2, weighing over 200 pounds, with an 11 pound head.
Are You 6'2", +200 Lbs, with an 11 Lbs head? What about women, people of small stature...especially children?
I heard that at the recent 2012 CTIA trade show the #1 requirement being requested was more power, so if the military and wireless industry are pushing more power, can we really rely on the FCC to protect us?
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Mac Kull
Jul 20, 2012
"The Specific Absorption Rating Standard" uses an Unrealistic Human Model!
Correct me if I am wrong, but it is the manufacturers themselves, the military, and the service providers who provide the SAR ratings used by the FCC to protect us and the human model they use to do the ratings does not necessarily fit the average human, but rather someone of height 6 foot 2, weighing over 200 pounds, with an 11 pound head.
Are You 6'2", +200 Lbs, with an 11 Lbs head? What about women and children?
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Mac Kull
Jul 20, 2012
During the 2012 CTIA trade show...the #1 comment by major manufacturers and service providers was the need for MORE POWER! This requirement of more power, in my humble opinion, is why the FCC has introduced a new review. They (the FCC) are merely the lapdogs of the military and the wireless industry--who need more power to run more applications on smaller/stronger EMF emitting (microwave radios) at the expense of our health.

Regarding SAR Rating - Everyone Knows that the wireless industry is the entity that sets the standards and that their standard is as follows: a 200+ lbs military man that is over 6" tall and has a 15 lb head. ASK YOURSELF: Are your children, young adults, or your spouse protected under this rating?
You Have Been Warned! Don't let them sacrifice our health for profit or for military requirements. Force them (by writing your congress folks) to do the right thing! Find a solution or a way to protect us.
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Joel Moskowitz
Jul 20, 2012
Does The FCC Plan To Rubber Stamp Outdated Cell Phone Radiation Standards?
More research on cell phone radiation is needed before we replace our outdated guidelines. In the interim the US should disseminate precautionary health warnings. A $1 annual fee per cell phone would generate $300 million for research and education.
PRLog (Press Release) - Jun 15, 2012 - Joel M. Moskowitz, Ph.D.
To see press release: http://www.prlog.org/11901340
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Joel Moskowitz
Jul 20, 2012
Does The FCC Plan To Rubber Stamp Outdated Cell Phone Radiation Standards?
More research on cell phone radiation is needed
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phone would generate $300 million for research and education.
FOR IMMEDIATE RELEASE
PRLog (Press Release) - Jun 15, 2012 -
The Federal Communications Commission (FCC)
will conduct a formal review of the U.S. cell phone radiation standards
according to a Bloomberg news report.An FCC spokesperson
emailed a statement to a Bloomberg reporter that is truly alarming. Her
message suggests that the FCC has already decided that the current
standards are fine, and will conduct a review to rubber stamp the 1996
FCC guidelines: "Tammy Sun, a spokeswoman for the agency, said in an e-mailed statement. The notice won't propose rules, Sun said.'Our
action today is a routine review of our standards,' Sun said. 'We are
confident that, as set, the emissions guidelines for devices pose no
risks to consumers.'"
(Todd Shields, Bloomberg, Jun 15, 2012; "Mobile-Phone Radiation Safety to Be Reviewed by U.S. FCC";
http://www.bloomberg.com/news/...
Bloomberg article cites a major review of the literature conducted by
our research center in which we found an association between mobile
phone use and increased brain tumor risk especially after 10 years of
cell phone use: "There is possible evidence linking mobile-phone
use to an increased risk of tumors, according to a study of scientific
studies and articles that was published in 2009 in the Journal of
Clinical Oncology." (http://jco.ascopubs.org/conten...)The
research we reviewed and subsequent research strongly suggest that the
current standards for cell phone radiation are not adequate to protect
us from health risks associated with exposure to cell phone radiation.
A year ago, a 31-member group of experts convened by the World Health
Organization agreed with our conclusions and classified cell phone

radiation a "possible carcinogen."The FCC standards were established in 1996 at a time when few adults used cell phones. Today, children and most adults are exposed to far more cell phone radiation than the FCC-approved test models are subjected to when new cell phones are certified. Moreover, the test assumes that cell phones can harm us only by heating tissue. This is not true as there are numerous studies that demonstrate non-thermal effects from cell phone radiation including increased glucose metabolism in the brain, generation of heat shock proteins, free radicals, and double-strand DNA breaks; penetration of the blood-brain barrier, damage to sperm and increased male infertility. The FCC admits on its web site* that "there is no federally developed national standard for safe levels of exposure to radiofrequency (RF) energy." "The FCC's guidelines and rules regarding RF exposure are based upon standards developed by IEEE and NCRP and input from other federal agencies." (http://www.fcc.gov/guides/wire... have grave concerns if the FCC continues to rely on industry-funded expert groups because our research found that industry-funded epidemiologic research was generally of lower quality and biased against finding harmful effects. Dr. Henry Lai at the University of Washington has come to a similar conclusion in his analysis of the toxicology research.In my opinion, it is premature to adopt new safety standards because we need more research that is independent of the wireless industry's influence. The Federal government needs to sponsor a major research initiative on the health effects of electromagnetic radiation. Martin Blank and Reba Goodman from Columbia University recently published a paper in the journal, Electromagnetic Biology and Medicine, calling for the development of a biologically-based measure of electromagnetic radiation (Blank and Goodman, Electromagnetic fields and health: DNA-based dosimetry. Electromagnetic Biology and Medicine. Posted online on June 7, 2012; http://informahealthcare.com/d... .In the interim, to protect cell phone users we must adopt and disseminate precautionary health warnings that promote safer cell phone use. Although the FCC web site provides some simple steps to reduce exposure to cell phone radiation, it "does not endorse the need for these practices." A dozen nations and the city of San Francisco have issued precautionary warnings about cell phone use to its citizens. It is time for our Federal government to do so.Joel M. Moskowitz, Ph.D.
http://www.prlog.org/11901340