



Advancing Sound Public Policy  
on the Use of Electromagnetic Radiation (EMR)  
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## How safe are the wireless devices on your holiday gift list?

11/20/2012 - As US holiday shoppers gear up for "Black Friday", news outlets are reporting on the findings of the recent Yale School of Medicine cell phone study funded by the Eunice Kennedy Shriver National Institute of Child Health & Human Development. The Yale study demonstrates that exposure to radiation from cell phones during pregnancy affects the brain development of offspring.

Yale University News reports at <http://news.yale.edu/2012/03/15/cell-phone-use-pregnancy-may-cause-behavioral-disorders-offspring>: "This is the first experimental evidence that fetal exposure to radiofrequency radiation from cellular telephones does in fact affect adult behavior," said senior author [Dr. Hugh S. Taylor](#), professor and chief of the Division of Reproductive Endocrinology and Infertility in the Department of Obstetrics, Gynecology & Reproductive Sciences."

Taylor attributed the behavioral changes to an effect during pregnancy on the development of neurons in the prefrontal cortex region of the brain. Attention deficit hyperactivity disorder (ADHD) is a developmental disorder associated with neuropathology localized primarily to the same brain region, and is characterized by inattention and hyperactivity.

For years wireless companies and some scientists have maintained that the "low level" of microwave radiation transmitted by cellphones as they keep in contact with the cellular telephone network is safe. The Yale study is yet another one that brings that assertion into question along with current US wireless radiation safety limits.

To date US consumers cannot easily and quickly assess the amount of radiation given off by their wireless consumer products, nor can they be assured that these products are safe.

The "Cellphone Right to Know Act" seeks to change all this. It requires the EPA to establish biologically-based safety limits to protect all Americans from potential harm caused by exposure to radiation from wireless devices. It requires labeling on both devices and their exterior packaging so that consumers can easily compare exposure -device to device - and to the maximum safety limit. ([www.gpo.gov/fdsys/pkg/BILLS-112hr6358ih/pdf/BILLS-112hr6358ih.pdf](http://www.gpo.gov/fdsys/pkg/BILLS-112hr6358ih/pdf/BILLS-112hr6358ih.pdf))

Other countries are leading the way in protecting their citizens from the health problems associated with exposure to radiation from wireless devices. In fact, on September 1, 2012 India dropped its maximum transmission limits to one tenth of their previous level, which was already lower than U.S. permissible exposure limits, and placed a moratorium on installation of antennas within 1 km of each other. ([http://articles.economictimes.indiatimes.com/2012-07-18/news/32730933\\_1\\_radiation-exposure-mobile-towers-emf](http://articles.economictimes.indiatimes.com/2012-07-18/news/32730933_1_radiation-exposure-mobile-towers-emf))

Switzerland, France, Germany, Russia, Israel and the Parliamentary Assembly of the Council of Europe (PACE) all warn against unnecessary exposure to wireless signals and recommend preferential use of wired technology. The Israeli Minister of Health has called for a ban on WiFi in schools. France has already done so. ([www.timesofisrael.com/stop-wi-fi-in-schools-deputy-health-minister-implores/](http://www.timesofisrael.com/stop-wi-fi-in-schools-deputy-health-minister-implores/)) Most of these countries already have more restrictive safety limits than the U.S. does.

The EMR Policy Institute advises:

**Make your holiday season happy and healthy. Shop for safe technology - devices which can use hard-wired connections and whose transmitters can be turned off. If you have the choice, go wired!"**

Find the text of "The Cellphone Right to Know Act" and more background at: [www.emrpolicy.org/](http://www.emrpolicy.org/) and [www.electricalpollution.com](http://www.electricalpollution.com)

Go Wired for Health. Stay Wired for Life.



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### Additional Media Reports:

On Nov. 10, 2012 at [www.torontosun.com/2012/11/10/cellphone-radiation-impacts-fetal-brain-development-yale-researchers](http://www.torontosun.com/2012/11/10/cellphone-radiation-impacts-fetal-brain-development-yale-researchers) **The Toronto Sun** reports that Yale Researcher Dr. Hugh Taylor stated:

"The mice exposed to cellphones were more active. Their memory was slightly decreased ... these mice were basically bouncing off the walls and didn't have a care in the world."

On Nov. 12, 2012 **KSAZ Fox News Phoenix** reports at <http://www.myfoxphoenix.com/story/20078451/2012/11/12/study-using-cell-phones-while-pregnant-could-hurt-fetus> that:

A recent Yale study found an expecting mother's exposure to cell phone radiation may lead to brain development problems, even hyperactivity, in children.

On Nov. 12, 2012 <http://now.msn.com/cellphone-radiation-impacts-fetal-development-say-yale-researchers> **msnNOW** reports:

Avoid any close-up baby bump phone pics, pregnant ladies. Yale researchers say that cellphone radiation affects fetal brain development and may cause hyperactivity in kids, after they studied the effects of a cellphone placed on a cage of pregnant mice.

In addition, **KTVU Oakland CA** recently aired a "Special Report" on two women, aged 21 and 39, with no family history of breast cancer, who developed breast cancer right where, for years, they carried their cellphones in their bras. Genetic testing showed that neither woman has the genetics markers for predisposition to breast cancer: [www.ktvu.com/videos/news/special-report-keeping-cell-phone-in-bra-may-lead/vhPF8/](http://www.ktvu.com/videos/news/special-report-keeping-cell-phone-in-bra-may-lead/vhPF8/)

### Science asserting harm from low-level wireless exposure:

Much credible science supports the assertion that "low-level" wireless radiation exposure results in adverse health outcomes. In May 2011, the **International Agency for Research on Cancer (IARC) of the World Health Organization** designated radiofrequency radiation, including the radiation from cellphones and other wireless devices, as a class 2B possible human carcinogen. It joins Chloroform, DDT, gasoline exhaust, lead and mercury on the list. ([www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208\\_E.pdf](http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf))

Studies show wireless devices can cause headaches, insomnia, cardiac arrhythmias, DNA breakages, cancer, and metabolic changes, alter enzyme function, impair the immune system, alter blood sugar (usually raising it), impair melatonin secretion, etc. [http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge\\_1969.pdf](http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf) **No safety testing has been done on wireless devices.**

### Flaws in US wireless safety policy:

In the US, the FCC safety limits with which wireless devices comply **only protect** a 6ft 2in, 200-lb male **from tissue heating** during a six-minute exposure. **They apply to continuous wave signals, not to pulsed modulated, i.e., digital, signals inherent to today's wireless consumer devices. They do not protect anyone in the general population from non-heating biological effects that can range from facial flushing to genetic damage.** (<http://stopsmartmeters.org/2012/03/09/a-primer-on-the-fcc-guidelines-for-the-smart-meter-age/>)

### US federal agencies statements on science and wireless safety policy:

US government agencies find our existing regulation to be deficient for protecting the population from biological effects of exposure to wireless devices. They support requiring development of biologically-based population-protective safety limits. **Experts at both EPA** [www.empolicy.org/litigation/case\\_law/docs/epa\\_to\\_fcc\\_3nov\\_93.pdf](http://www.empolicy.org/litigation/case_law/docs/epa_to_fcc_3nov_93.pdf) and

[www.emrpolicy.org/litigation/case\\_law/docs/exhibit\\_a.pdf](http://www.emrpolicy.org/litigation/case_law/docs/exhibit_a.pdf) and the **National Academies of Science** [www.nap.edu/catalog.php?record\\_id=12036](http://www.nap.edu/catalog.php?record_id=12036) have made it clear that the **existing FCC guidelines do not address today's ubiquitous exposures to the general population** – women, children, pregnant women, the elderly, the infirm and those who have implanted medical devices, as well as men of average height and weight - from the complex mixture of emissions from wireless devices.

#### **Provisions of the "Cell Phone Right to Know Act":**

The "Cellphone Right to Know Act" brings regulation of one of our most popular technologies into the 21st century and makes it **relevant to the modern usage of today's wireless devices**. Without the biologically-based regulations required by this Act, it is impossible for consumers to be sure that they will not experience health problems related to their daily ubiquitous exposure to today's wireless technology. Or, that the wireless devices that they purchase for themselves or loved ones for holiday gifts are safe.

The "Cellphone Right to Know Act" **requires the EPA to develop safety limits that are protective without behavior modification on the part of the consumer**. For instance, most cellphones only comply with the FCC's outdated thermally-based regulations when used in a special holster or held a specified distance from the head during a call, not when in a pocket, a bra or held directly against the ear. ([www.youtube.com/watch?v=F4bp7Zi\\_8pk](http://www.youtube.com/watch?v=F4bp7Zi_8pk))

Finally, key to establishing population-protective safety limits is assessing risks to consumers. The "Cellphone Right to Know Act" **establishes a research program and requires that telecom companies release data**, including usage data and infrastructure data, to health researchers so that they can accurately assess exposure levels and associated risk.

#### **Precautionary policies in other countries:**

Since 2009 the French government has led the way with **legislation that expressly limits children's use of wireless devices** due to growing fears that they may cause cancer and other diseases. See: <http://www.independent.co.uk/life-style/gadgets-and-tech/news/french-government-bans-advertising-of-mobiles-to-children-1299673.html> : The French legislation prohibits all advertising of mobile phones to children under 12 and it bans the sale of any phone designed to be used by those under six.

In 2008 Lyon, France's second city, launched an **advertising campaign before Christmas aimed at dissuading people from buying mobiles for children's gifts**, with the slogan "Let's keep them healthy, away from mobile phones!" Also in 2008 France's official Agency for Environmental and Occupational Health Safety said that parents should not give small children mobiles. And France's Health Ministry urged using them in moderation.

India is taking action in response to the "Report on Possible Impacts of Communication Towers on Wildlife Including Birds and Bees", commissioned by the Ministry of Environment and Forests, Government of India. The report **recommends a precautionary approach** due to the evidence of potential harm to humans and wildlife, **including revising safety limits and tightening siting regulations** - even to the extent of removing problematic towers ([www.moef.nic.in/downloads/public-information/final\\_mobile\\_towers\\_report.pdf](http://www.moef.nic.in/downloads/public-information/final_mobile_towers_report.pdf)).