

Dear MD State Board of Education,

The State Dept of Education told me that *"There is not enough evidence to support your claim that all of Maryland school systems are improperly using digital devices thereby increasing students' exposure to radio frequency emissions. "*

There is more than enough evidence. Just ask the kids.

Please immediately act to ensure schools and school buses are safe environments. Wireless is not safe and there is no evidence of safety. If you find safety evidence please send it to me.

I have come to talk to you, I write letters, and I would like to be contacted back about next steps to ensure this issue gets due diligence.

Thank you, Theodora Scarato

## American Academy of Pediatrics Issues New Recommendations to "Reduce Exposure to Cell Phones"

Nation's largest group of children's doctors (the American Academy of Pediatrics) responds to new government study linking cell phone radiation to cancer

### American Academy of Pediatrics Recommends:

#### CELL PHONE SAFETY TIPS FOR FAMILIES

- > Make only short or essential calls on cell phones.
- > Use cell phones in speaker mode or with the use of hands-free kits.
- > Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe level.
- > If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- > Keep an eye on your signal strength (i.e. how many bars you have). The weaker your signal, the harder your phone has to work and the more radiation it gives off.
- > Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder (and emits more radiation) to get a signal through metal.
- > Remember that cell phones are not toys or teething items.

#### REMEMBER:

Wireless devices (such as **tablets, laptops, baby monitors, video game consoles and Wi-Fi routers**) emit the same type of radiation as cell phones.

#### QUICK TIPS AT HOME:

Easily reduce wireless radiation at home. Get a **corded landline phone** and forward cell phones to it.

Use **corded plug-in (non-wireless) connections** for printer, mouse, computers and routers—with all wireless functions off.

MORE AT **EHTrust.org**  
**#PracticeSafeTech**

 **ENVIRONMENTAL  
HEALTH TRUST**

American Academy of Pediatrics Website: Healthy Children.org Cell Phone Radiation & Children's Health: What Parents Need to Know  
<https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Cell-Phone-Radiation-Childrens-Health.aspx>

In response to the U.S. National Toxicology Program study results finding exposure to wireless radiation significantly increased the prevalence of highly malignant heart and brain cancers in rodents, the American Academy of Pediatrics (AAP) has issued specific recommendations to reduce wireless cell phone exposure and updated their online resources for parents concerning cell phones and wireless devices.

"They're not toys. They have radiation that is emitted from them and the more we can keep it off the body and use (the phone) in other ways, it will be safer," said Jennifer A. Lowry, M.D., FAACT, FAAP, chair of the AAP Council on Environmental Health Executive Committee in the [AAPs press release on the NTP Study Results](#).

"The findings of brain tumors (gliomas) and malignant schwann cell tumors of the heart in the NTP study, as well as DNA damage in brain cells, present a major public health concern because these occurred in the same types of cells that have been reported to develop into tumors in epidemiological studies of adult cell phone users," stated Ronald L. Melnick, PhD, the National Institutes of Health toxicologist who lead the NTP study design and senior advisor to the Environmental Health Trust. "For children the cancer risks may be greater than that for adults because of greater penetration and absorption of cell phone radiation in the brains of children and because the developing nervous system of children is more susceptible to tissue-damaging agents. Based on this new information, regulatory agencies need to make strong recommendations for consumers to take precautionary measures and avoid close contact with their cell phones, and especially limit or avoid use of cell phones by children."

The AAP has updated their [Healthy Children Webpage on Cell Phones](#) entitled *Cell Phone Radiation & Children's Health: What Parents Need to Know*. The webpage reiterated children's unique vulnerability to cell phone radiation stating, "*Another problem is that the cell phone radiation test used by the FCC is based on the devices' possible effect on large adults—not children. Children's skulls are thinner and can absorb more radiation.*"

The AAP issued the following cell phone safety tips specifically to reduce exposure to wireless radiation:

- Use text messaging when possible, and use cell phones in speaker mode or with the use of hands-free kits.
- When talking on the cell phone, try holding it an inch or more away from your head.
- Make only short or essential calls on cell phones.

- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe level.
- Do not talk on the phone or text while driving. This increases the risk of automobile crashes.
- Exercise caution when using a phone or texting while walking or performing other activities. "Distracted walking" injuries are also on the rise.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off. It's better to wait until you have a stronger signal before using your device.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.

In 2012, the AAP published *Pediatric Environmental Health, 3rd Edition* recommending, "exposures can be reduced by encouraging children to use text messaging when possible, make only short and essential calls on cellular phones, use hands free kits and wired headsets and maintain the cellular phone an inch or more away from the head."

Since 2012, the AAP has supported the Federal Cell Phone Right to Know Legislation and has written letters to the FCC calling on the federal government to review and strengthen radiation standards for wireless devices in an effort to protect children's health.

#### Links

American Academy of Pediatrics Website: Healthy Children.org Cell Phone Radiation & Children's Health: What Parents Need to Know

<https://www.healthychildren.org/English/safety-prevention/all-around/Pages/Cell-Phone-Radiation-Childrens-Health.aspx>

AAP responds to study showing link between cell phone radiation, tumors in rats May 27, 2016

<http://www.aappublications.org/news/2016/05/27/Cancer052716>

[2012 AAP Letter in Support of the Cell Phone Right to Know Act](http://ehtrust.org/wp-content/uploads/2015/12/aap_support_letter_cell_phone_right_to_know_act.pdf)

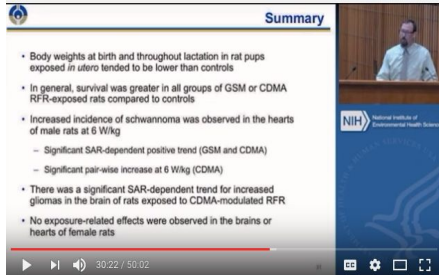
[http://ehtrust.org/wp-content/uploads/2015/12/aap\\_support\\_letter\\_cell\\_phone\\_right\\_to\\_know\\_act.pdf](http://ehtrust.org/wp-content/uploads/2015/12/aap_support_letter_cell_phone_right_to_know_act.pdf)

[2013 AAP Letter to the FCC calling for a review of RF guidelines](https://ecfsapi.fcc.gov/file/7520941318.pdf)

<https://ecfsapi.fcc.gov/file/7520941318.pdf>

## Quick Links

[NIH National Toxicology Program \(New\) Cell Phones Webpage with Study Overview](#)



[U.S. Food and Drug Administration 1999 Report on the Nomination of the NTP To Study Radiofrequency](#) (Explains basis for the study)

[NTP Video Presentation on the Results of Toxicology and Carcinogenicity of Radiofrequency Radiation Studies at the National Institute of Environmental Health Sciences, June 2016.](#)

**Study Report:** [Report of Partial findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats \(Whole Body Exposure\)](#)

[Powerpoint Slides of NIEHS Study by NIEHS for BIOEM Conference](#)

[Powerpoint slides of NIEHS Presentation June 15, 2015 \(some are different than the BIOEM slides\)](#)

[Spin Versus Fact : The NTP Study by Dr. Moskowitz Download the Factsheet](#)

### Doctors Respond to the NTP Study

[American Cancer Society Press Release: ACS Responds to New Study Linking Cell Phone Radiation to Cancer](#)

[American Academy of Pediatrics Responds to National Toxicology Program study](#)

Barcelona Institute for Global Health, [GROWING EVIDENCE FOR THE LINK BETWEEN MOBILE PHONES AND CANCER](#) Response by Elisabeth Cardis, lead researcher of the multicounty Interphone Study.

### ***Why is this study considered a “landmark” study?***

These results are very significant for three reasons:



**1. In case-controlled studies, humans develop the same types of tumors from cell phone exposures.**

Epidemiological studies in humans show increased risks for gliomas and schwannomas after long-term use of cell

phones – these are the same types of tumors that were found in the exposed rats.

**2. The results show adverse biological effects at non-thermal levels meaning that current international regulations (based on avoiding heating) do not adequately protect public health.**

The NTP study was designed to test if the basis for government safety standards is accurate. Current safety standards are based on the premise that only RFR levels that cause heating are harmful. The study was carefully designed to ensure that the body temperature of the exposed rats did not increase significantly. *Yet an effect was shown at non-thermal levels.* The NTP study provides well-documented, scientific evidence that current international regulations are based on a faulty assumption.

**3. The results add significant weight to the scientific evidence that radio frequency radiation is carcinogenic.**

In 2011, the International Agency for Research on Cancer of the World Health Organization (IARC/WHO) classified radio frequency radiation as a Class 2B “possible carcinogen.” One of the reasons for the classification “possible” was because human epidemiological studies showed increased brain tumors after long term exposures, however, *more evidence* was needed from animal studies showing carcinogenicity and a mechanism of action. The recent NTP results provide new, well-designed research evidence in animal models that links RFR to cancer. As the NTP stated, “These findings appear to support the International Agency for Research on Cancer (IARC) conclusions regarding the possible carcinogenic potential of RFR.”

**Is it true that the NTP study found DNA damage in the exposed animals?**

Yes - [the NTP study found](#) statistically significant evidence of DNA damage. The preliminary data with comet assay showed a statistically significant trend in RF-induced DNA damage in both rat and mice brain tissues. These findings were shared by the National Toxicology Program during the [BIOEM 2016 Annual Meeting](#).

Associate Director of NTP John Bucher described some of the DNA findings in a Science Magazine interview stating that, “In a small side experiment of the NTP study, DNA from the tissues of 80 mice and rats that had spent 90 days in the reverberation rooms were examined for breaks in the DNA strands. There was more DNA damage in some of the rodents that received the highest radiation levels.”

Genotoxicity findings will be published in the forthcoming paper from the NTP rodent study entitled “Evaluation of the genotoxicity of cell phone radiofrequency radiation in

male and female rats and mice following subchronic exposure” (as noted on [page 3 of the released NTP Report](#))

### ***What was the objective of the study?***

According to Ron Melnick , the NIH scientist who lead the study design, the researchers wanted to test the hypothesis that *cell phone radiation could not cause adverse health effects at levels that did not cause heating*. The study was designed to provide data to characterize dose-response for any detected toxic and/or carcinogenic effects of cell phone radiofrequency radiation (RFR) in Sprague-Dawley rats and B6C3F1 mice exposed unconstrained in reverberation chambers.

At the time the study was initiated, slightly more more than 100 million Americans used wireless communication devices, yet guidelines for cell phone radiation were (and still are) are based largely on protection from acute injury from thermal effects. The researchers were aware of several ongoing animal studies, but felt they might not provide an adequate challenge to the null hypothesis, so the NTP set out to design the world’s largest animal study on radiofrequency radiation to date.

To read more about the study I recommend these articles

[Watch a Wall Street Journal Interview on the NTP Cell Phone Cancer Research Study here](#)

[Read the NPR News Story Here.](#)

[Listen to the NPR News Story Here.](#)

[Read Scientific American Article Here.](#)

[Read Consumer Reports Article Here.](#)

[Watch a WTOP radio interview with Dr. Melnick here.](#)