

The Implications of Wireless Radiation In Schools

Wireless technology networks in schools and other educational settings pose an extraordinary threat to children's health and wellbeing. Classrooms typically have industrial strength routers and 30+ handheld devices or laptops which all emit microwave radiation. This environment is increasingly commonplace, as a result of the national movement to digitalize learning in our schools. Significantly, this represents an unprecedented health risk to the children in schools who are now being exposed 6 hours a day, 5 days a week, for their entire school careers.

Wired technology in schools is known to be fast, reliable, secure and cost effective when compared to wireless systems. Hardwiring technology allows schools to safely connect to the Internet, achieving educational goals without harming students or staff. Let's ensure safe and healthy learning environments for students and teachers by implementing the *Turn It Off 4 Kids* Initiative in our schools and community!

Turn It Off 4 Kids Initiative

- 1.) Hardwire all new technology in our schools and other educational settings, such as libraries, auditoriums, gymnasiums / recreational facilities and dormitories.
- 2.) Replace existing wireless technology with hardwired systems in our schools and other educational settings.
- 3.) Create or adopt a health curriculum for Grades K – 12 which educates students on identifying sources of wireless radiation with an emphasis on avoidance of exposure.
- 4.) Engage in community outreach to educate the public regarding simple steps to avoid exposure, especially for children and pregnant women.

Turn It Off 4 Kids has been endorsed by
28 prominent scientists, physicians and safety advocates.

"This is an extremely important initiative. The wireless technology is implemented worldwide in spite of the fact that radiofrequency (RF-EMF) exposure has in May 2011 been evaluated by IARC at WHO to be a 'possible' human carcinogen, Group 2B. Also other acute and long-term health effects are of concern. The wireless technology should be replaced by hardwired systems." ~ Lennart Hardell, MD, PhD, Oncologist and Cancer Researcher, Department of Oncology, University Hospital, Orebro, Sweden

"To not act today would be deemed ethically and morally completely corrupt in the future, and this is particularly important when it comes to our children's environment." ~ Olle Johansson, PhD, Associate Professor, Karolinska Institute, Department of Neuroscience, Stockholm, Sweden

*"There is simply no reason to forcibly subject children in classrooms to WiFi when safer, wired alternatives are readily available." ~ Victoria Dunckley, MD, Integrative Child, Adolescent & Adult Psychiatry, Author of *Reset Your Child's Brain**

"If we found that there was a chemical in our schools that thousands of peer reviewed studies show were associated with adverse health effects including cognitive impairment, neurological damage, tachycardia and cancer, we would immediately take action. The same should hold true with wireless radiation, even if it is immensely popular in our current culture. It's our children, it's our future. We need to put down our devices and get our priorities straight. Health comes before technological novelties." ~ Ray Pealer, Public Health Advocate



The National Association for Children and Safe Technology (NACST) is an organization dedicated to raising awareness about the health impacts of wireless radiation on children as well as advancing policies that safeguard children's health and well-being.

NACST.org



"So many serious biological effects have been found that immediate responsive action is warranted. Further, these biological effects are occurring at levels of radiation far lower than earlier understood. Simply stated, a worldwide health crisis is emerging and is becoming a hallmark of the 21st Century. The international biomedical research community is trying to warn us; but we, in the USA, are not yet listening."

- Ronald Powell, PhD, "Messages to Schools and Colleges" 1

Dear Neighbors and Friends,

The following information has been compiled to help you understand this critical issue for children and why the *Turn It Off 4 Kids* Initiative is extremely important. Thank you for taking the time to learn more and we hope you will support this initiative for our kids.

Children are not little adults and the impacts of exposure to toxins, including wireless radiation are especially damaging. Because of their smaller stature, thinner bones, and rapid cell growth / division - radiation penetrates much deeper into their brains and bodies, representing a serious health risk to the developing child. To a lesser extent, developing adolescents are also vulnerable. 2, 3

Thousands of scientific studies, accumulating over many decades, indicate wireless radiation causes biological harm. The studies document damage to DNA, immune, nervous and reproductive systems, as well as opening of the blood-brain-barrier and blood-gut barrier. Significantly, our exposures are resulting in the epidemic growth of cancer and Autism. 4, 5, 6, 7

Prominent scientists and medical doctors from around the world are sounding the alarm. In 2015, 220 international scientists made an appeal to the U.N. and World Health Organization (WHO) declaring our exposure to EMF "an emerging public health crisis," damaging DNA and leading to premature death. www.emfscientist.org 8

Wireless radiation emitted from devices such as cell phones, laptops and routers is carcinogenic. The scientific debate over the classification of wireless radiation is evolving rapidly. In 2011, the WHO classified wireless (microwave) radiation as a 2B "possible" human carcinogen - in the same category as lead, DDT and car exhaust. Released in May, 2016, a two-year, \$25 million study conducted by the National Toxicology Program (NTP) confirmed that exposure to RF-radiation has a carcinogenic effect. The NTP results further substantiate studies conducted within the past three years. Notably, research by world-renowned oncologist, Lennart Hardell, MD, Ph.D., concluded that wireless radiation should be upgraded to a Class 1A, known human carcinogen, and exposure guidelines need urgent revision. 9, 10, 11, 12, 13, 14, 15

Cancer rates in children are on the rise. The National Cancer Institute reports cancer as the leading cause of death by disease in children and adolescents in the United States. In 2016, the American Brain Tumor Association published a comprehensive analysis in the *Neuro-Oncology Journal* which concluded brain tumors are now the leading cancer in American adolescents and incidence is rising. 16, 17, 18

Safety testing conducted on wireless devices is flawed and does not accurately reflect factors such as usage patterns, age, size, and gender of the user. Wireless devices are only tested for 6 minutes on a 6-foot tall, 200-pound mannequin with an 11-pound plastic head filled with a liquid substance supposedly representing the average density of various body parts. A 1" spacer is used for mobile phones and an 8" spacer is used for handheld devices (laptops and tablets), which means there is a distance between the mannequin and the device being tested. This is how the Specific Absorption Rate (SAR) for wireless devices is calculated. It is not a meaningful gauge of safety and is very misleading. 3, 19, 20, 21, 22, 23, 24, 25, 26, 27, 43

RF safety warnings are located in the fine print of device manuals. They are difficult to read without a magnifying glass. Most parents and teachers do not realize there are warnings to keep devices away from the head and body so as not to exceed the FCC safety guidelines which, to begin with, are inadequate! 28

There is no national standard for safe levels of exposure to radio frequency radiation, only recommendations set by non-government, industry-affiliated organizations such as the Institute of Electrical and Electronics Engineers (IEEE). 29, 30

The Federal Communications Commission (FCC) is not a health agency; however, it sets the safety standards for wireless devices which are over 20 years old and only account for short-term heating effects. In other words, will using this device cause a burn or shock. No government health or medical agency has been clearly designated to regulate wireless devices for safety and health. 19, 20, 31

There are no health organizations that will assert exposure to wireless radiation is safe for children. There is no such thing as a safe level of radio-frequency exposure for children. It does not exist. 32

Insurance companies will not cover damages, injury or death caused by exposure to wireless radiation. 33

The tobacco and telecommunication industries have a lot in common. Both are very powerful and both have compromised the integrity of our government's ability to regulate their respective industry. As the history of tobacco demonstrates, responsible public health policy lags decades behind the science and evidence of harm. 34, 35

Around the World - Government Actions and Legislation Regulating Wireless Technologies to Protect Children

April 2016 Haifa, Israel - The Mayor ordered the WiFi networks in schools disconnected immediately until wireless is proven safe. Mayor Yahav has mandated the installation of wired systems in the city's schools. 36

March 2016 Argentina - Proposed national law requiring only wired connections in schools and health facilities. 37

January 2016 Cyprus National Committee On Environment and Children's Health provides citizens with an informational video titled - Protect the Children From the Radiation of Mobile Phones and Wi-Fi. 38

Mid 2015 Israel - The Israeli Ministry of Education banned WiFi in Kindergarten and the use of wireless in other grade levels is restricted. 39

January 2015 France — National legislation passed to ban WiFi from environments dedicated to the care of children age 3 and under. Wireless access in elementary schools must be disabled when not in use for teaching. 40

April 2011 The Russian National Committee on Non-Ionizing Radiation Protection Resolution strongly recommends reducing exposures to children and teenagers. They advise against the use of Wi-Fi in schools. 41

United States - Government Actions and Legislation Regulating Wireless Technologies to Protect Children

Legislation has been introduced at the national, state, and local levels. Most of these bills have not passed due to corporate influence on government entities.

2012 National Law - The Cell Phone Right to Know Act H.R. 6358, received strong support from the American Academy of Pediatrics but it was not enacted. 42, 43

2015 Oregon HB 3350 - Department of Education to prepare a statement that discloses the potential health risks of wireless technology and requires schools to distribute to employees and parents. It declares an emergency effective July 1, 2015. This bill did not pass. 44

May 2015 Berkeley, California adopted the Cell Phone "Right to Know" Ordinance on a unanimous vote. This law went into effect in March 2016 and is the first law in the nation requiring cell phone retailers to warn customers about possible RF exposure. "The people selling these products are not selling them for your good," City Councilman Anderson said. "They're selling them for profit. They play fast and loose with regulations." 45

December 2014 Suffolk County, New York passed legislation to require all county buildings to post notices that wireless routers are in use. The resolution warns that every wireless device emits radio frequency (microwave) radiation. 46

2014 Maine LD 1013, The Wireless Information Act requires manufacturer's information on radiofrequency exposure to be visible on the outside of the wireless device's packaging. The legislation passed the state senate and house but failed in the second vote due to industry pressure. 47

Legislation as well as proclamations and resolutions have been introduced in other states and municipalities including Arizona, Hawaii, Pennsylvania, Massachusetts, New Mexico, Wyoming, Florida, Colorado, and Connecticut.

Lawsuits

2016 Massachusetts - Wi-Fi lawsuit against Southboro's Fay School will go to court August 2016. The school did not accommodate a student who began to have symptoms of Electrohypersensitivity (EHS) after a stronger wireless network was installed. 48

2015 Murray vs. Motorola - A total of 13 cases have been consolidated into the Murray case, and the plaintiffs are seeking more than \$1.9 billion in total damages. 49

2012 Italian Supreme Court rules in favor of plaintiff, cell phone radiation caused his brain cancer. "A landmark court case has ruled there is a link between using a mobile phone and brain tumours, paving the way for a flood of legal actions." UK Telegraph, Oct 19, 2012 50

Teacher Unions, NEA and PTAs Are Taking a Stand Against Wi-Fi Networks In Schools

March 2016 Ontario, Canada - Two of the largest teacher's unions have called for a moratorium on Wi-Fi in their schools. "WiFi emits microwave radiation and it's linked to cancer by the World Health Organization," said Andrea Loken, Kingston area President of the OSSTF. "No teacher has consented to be exposed to this, nor has the Board ever warned us about it." 51

October 2015 New York - Pheonicia PTA- "We support the BOE in dismantling the WiFi in the classrooms at Phoenicia school and in moving forward, to continue to update the safer hard-wired computer access to classrooms." 52

2014-2015 NEA Resolutions, pg. 42 C-19. Environmentally Safe Schools: "The National Education Association believes that all educational facilities must have healthy indoor air quality, be smoke-free, be safe from environmental and chemical hazards, and be safe from hazardous electromagnetic fields." 53

December 2014 New York State Union of Teachers (NYSUT) website includes a 50 minute webinar "Risks of Wireless Technologies and Protecting Children and Staff in School". 54



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