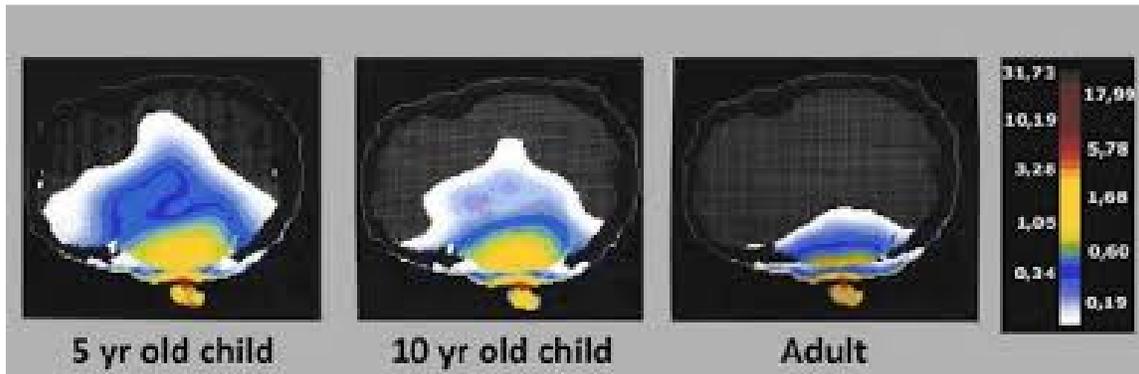


Wireless Radiation in Schools - Fact Sheet and Directives



What is Wireless Radiation?

All devices which operate using electricity emit radiation. Wired or corded devices have insulated cables, preventing leakage of radiation. Wireless devices, such as routers, cell phones and tablets, are not insulated. Wireless devices emit extremely low frequency, pulsating radiation (ELF). Early research investigated the *thermal* effects of ELF and determined ELF was not harmful to humans. Current research is showing ELF adversely affects the *cellular structure* of humans, as indicated by a growing body of studies detailed below.

Why Restrict Exposure of Wireless Radiation to Children?

1. Children absorb more EMF radiation than adults

<http://www.sciencedirect.com/science/article/pii/S2213879X14000583>

2. EMF Radiation Science

Dr. Devra Davis Ph.D., M.P.H. Founder and President Environmental Trust Fund; former Professor, Department of Epidemiology and founding Director, Center for Environmental Oncology, University of Pittsburgh, Cancer Institute presents to physicians at Symposium on Health Issues Associated with the Exposure to Electromagnetic Fields and Microwave Radiation in Toronto.

<https://www.youtube.com/watch?v=9ZaZQ4fDm5o>

Actions by Medical Associations and Governments to Regulate Wireless Radiation Exposure to Children



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3. World Health Organization – Wireless a Group 2B Carcinogen

In 2011, the *World Health Organization* categorized wireless radiation emitted from cell phones, laptops, tablets, mobile phone bases, baby monitors, and routers, as a Group 2B, or *possible*, carcinogen. This classification was based on adult data, and did not take into account that children are more susceptible to radiation effects, considering they have thinner skulls, more aqueous body/brain, and faster cell turnover.

4. American Academy Advocates for Wireless Review

In 2013, the *American Academy of Pediatrics* requested the *Federal Communications Commission* consider reclassifying wireless radiation as a Group 2A, or *probable*, carcinogen (see attached letter), in consideration of the rapid rise in use of cell phones and tablets by young children.

5. National Association for Children and Safe Technology

February 3, 2015 press release “Researchers Conclude Wireless Radiation Causes Cancer After Latest Scientific Findings Announced” by the *National Association for Children and Safe Technology* are calling for a “Turn it off 4 kids” initiative requesting all children’s health and cancer prevention organizations make the issue of children’s health and exposure to wireless radiation in educational settings an immediate priority for 2015.

<http://www.prlog.org/12421346-researchers-conclude-wireless-radiation-causes-cancer-after-latest-scientific-findings-announced.html>

6. California Medical Association Wireless Resolution

<http://www.saferemr.com/2015/04/california-medical-association-calls.html>

7. Presentation of Bill C-648 by Canadian Ontario MP Terence Young to Parliament

<https://www.youtube.com/watch?v=8dLhFGskHGg>

8. Mobilize documentary documents research evidence showing harmful effects of wireless radiation on humans.

https://www.youtube.com/watch?v=XBVJ05u_o5I

Consequences of EMF Radiation on Children

Wifi radiation has two known and heavily researched effects on humans 1) opens voltage gated calcium channels in cells 2) emits heat. While the heat emitting effects of wireless radiation are apparently harmless, the effects on cells have proven to be harmful to adults, posing increased risks to children.

9. Adverse Health Effects – Appeal to UN and WHO

In May 2015, a group of 190 independent scientists from 39 countries, who in total have written more than 2,000 papers on the topic, formerly appealed the United Nations, the World Health Organization, and national governments to develop stricter controls on cell-phone radiation (see Appeal link below). “I think the overall evidence that wireless radiation might cause adverse health effects is now strong enough that it’s almost unjustifiable for government agencies and scientists not to be alerting the public to the potential hazards,” says David O. Carpenter, M.D., director of the Institute for Health and the Environment at the University at Albany in New York and one of the authors of the recent letter to the U.N. and WHO.

<https://www.emfscientist.org/>

10. Child Leukemia

Bioinitiative 2007 Summary conclude:

1. (p8) There is little doubt that electromagnetic fields cause childhood leukemia;
2. (p9) Children who have leukemia and are in recovery have poorer survival rates if their ELF exposure at home (or where they are recovering) is between 1mG and 2 mG in one study; over 3 mG in another study.

<http://www.bioinitiative.org/table-of-contents/>

Childhood cancer 2012 conference held in the UK showing 25 studies linking EMF to child leukemia. <http://www.childrenwithcancer.org.uk/reviewing-the-evidence>

11. Acoustic Neuroma

Study published in the Journal of Oncology reports the percentage tumour volume increased per year of latency and per 100 h of cumulative use, statistically significant for analogue phones. This study confirmed previous results demonstrating an association between mobile and cordless phone use and acoustic neuroma.

<http://www.spandidos-publications.com/10.3892/ijo.2013.2025>

12. Decreased sperm motility and DNA fragmentation

Journal of Fertility and Sterility reports in a 20 year study of male laptop users on Wifi effect on sperm motility and DNA fragmentation.

[http://www.fertstert.org/article/S0015-0282\(11\)02678-1/abstract](http://www.fertstert.org/article/S0015-0282(11)02678-1/abstract)

13. Hyperactivity and Impaired Memory

Study published in Nature showed increased hyperactive behavior and impaired memory in mice following exposure to wireless radiation from cell phones.

<http://www.nature.com/articles/srep00312>

14. Cellular Damage

Video by Dr. Sinatra, cardiologist on impact of wireless radiation on cellular structure including how to avoid radiation exposure for children.

<https://www.youtube.com/watch?v=yVV8uT-BJP>

Computers and Learning – A Paradox

15. Computers 'do not improve' pupil's results, OECD study says

UK's Organization for Economic Co-operation and Development (OECD) finds that *computers 'do not improve' pupil results.*

<http://www.bbc.com/news/business-34174796>

16. Should cell phones be banned in classrooms? New research suggests yes

Researchers from Louisiana State University and the University of Texas found that when schools implemented a cellphone ban across campus, student test scores increased by as much as 6 percent.

<http://national.deseretnews.com/article/4449/Should-cellphones-be-banned-in-classrooms-New-research-suggests-yes.html>

What Can Schools Do Now to Ensure Safety for Students and Teachers?

Above initiatives by the *World Health Organization*, the *American Academy of Pediatrics*, and the *National Association for Children and Safe Technology*, in light of accumulated research data, indicate that radiofrequency radiation emitted from wireless devices (cell phones, tablets, routers etc) poses known and unknown (long term) harm to children, and should be removed from schools immediately.

While This issue is under active consideration by the Royal College of Physicians and Surgeons, Canadian Medical Association, Council of Family Physicians of Canada, Canadian Paediatric Society, and the Canadian Cardiovascular Society (Dr. Hugh Scully, BA, MD, MSc, FRCS[C], FACS), it took Health Canada ten years to implement mandatory use of lead shields during x-rays with pregnant women, following research showing x-rays caused cancer. How long can children afford to wait, when sustainability is now in question?

Schools are tasked with ensuring that policies and procedures implemented on a wide scale are safe for children, such as the installation of wireless internet and use of devices that emit radiofrequency radiation. School teachers, principals, school boards, and education governments will be held liable for submitting children to known safety risks.



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Wireless radiation has proven to NOT be safe for adults, with children being exceedingly more vulnerable to radiation effects. A whole generation of children are being forced to submit themselves to what could be termed the most dangerous experiment known to humankind, wireless radiation.

The time to act is now. Join the *Refuse to Use* movement <http://movingtolearn.ca/> to create sustainable futures for all children. The following measures should be taken immediately to create safe schools, daycares, preschools, and facilities where children frequent e.g. libraries, recreation centers, etc.

1. **Remove all wireless devices** from schools, including routers, wireless laptops, cell phones, and tablets.
2. **Installed wired internet** using either Ethernet or fiber optic cables.
3. **Restrict computer usage** until students attain printing, reading and numerical literacy (at least grade 3).
4. **Prohibit the use of personal handheld devices** in schools by children.
5. **Restrict the use of teacher's handheld devices** to staff room, or > 20' from children.

Cris Rowan is a pediatric occupational therapist, biologist, international speaker, and author of "Virtual Child – The terrifying truth about what technology is doing to children".

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Additional information can be found on Cris's website www.zonein.ca, blog www.movingtolearn.ca, book www.virtualchild.ca, and Fact Sheet www.zonein.ca.