

1.1 WHAT IS SAFETY CODE 6?

Safety Code 6 sets out Health Canada's wireless guidelines for recommended human exposure limits to radiofrequency (RF) electromagnetic radiation (energy), the kind of radiation given off by various electronic devices such as cell phones and Wi-Fi, as well as by broadcast and cell phone towers.

Safety Code 6 was originally created in the 1970's for the protection of federal employees and visitors to federal buildings.

- It has been expanded to include emissions from Wi-Fi, smart phones, smart meters and cell phone towers.
- It has not had any major revisions in the last 40 years.
- Many institutions such as school boards have adopted Safety Code 6 although they are legally able to set safer standards.
- Safety levels for commonly used devices are based solely on temperature changes in tissues. For exposures such as from cell towers, if the estimated temperature in a cube of tissue does not increase by more than a certain rise in temperature over a 6 minute exposure period.¹
- Levels are considered to be safe for 24/7 exposures, even for infants and small children.
- None of the evidence in hundreds of high quality studies demonstrating adverse effects under “non-thermal” conditions is incorporated into Safety Code 6 guidelines.

Some industry liability insurance providers do not offer coverage against adverse health effects from radiation emitted by wireless technologies, and insurance authorities deem potential liability as “high.”²

1.2 HEALTH CANADA ADMITS STUDIES SHOW HARM AT LEVELS BELOW SAFETY CODE 6

Mr. Andrew Adams, Director General, Health Canada, In testimony before the Parliamentary Health Committee, admitted there are studies that show harm below Safety Code 6.³

Health Canada document “determined that 36 studies were of “sufficient quality for inclusion in the Risk Assessment” in the following categories:”

- Cancer is linked in 6 studies,
- Brain/nervous system impacts in 13,
- Biochemical disruption in 16 and
- Development and/or learning behaviour impacts in 7.⁴

1.3 CANADA'S SAFETY CODE 6 IS AMONG THE WORST GUIDELINES IN THE WORLD.

China, Russia, Italy and Switzerland have wireless radiation safety limits for emissions such as from cell towers that are 50 times safer than Canada.⁵

40% of the world's population lives in countries with codes safer than Canada.

Innovation, Science and Economic Development, regulator for emission levels from devices, does not routinely monitor (measure) for the multi-hour, multi-day exposures of today's environment; nor the cumulative effects from multiple devices

Manufacturers have safety warnings that are buried in cell phones and tablets⁶

More than 100 Canadian MD's and international scientists signed declarations stating that the current levels of Safety Code 6 do not protect Canadians.^{7,8}

1.4 CANADA HAS FALLEN BEHIND COUNTRIES SUCH AS FRANCE, TAIWAN AND BELGIUM IN PROTECTING CANADIANS FROM THE UNSAFE USE OF WIRELESS DEVICES.

January 29, 2015 France passed the following articles into law:⁹

- A ban on the use of Wi-Fi in day care centres and nurseries for children under three years of age
- Wi-Fi must be deactivated when not in active use for digital educational activities in primary schools with Wi-Fi already in place,
- For primary schools without Wi-Fi, a consultation process must be followed.
- (Primary schools include pre-school, (ages 2 to 6) and elementary school, (ages 6 to 11))
- All advertisements promoting cell phones must demonstrate a device to limit the exposure of the head to radiofrequencies emitted by the cellular phones. (e.g. ear buds or speaker mode)
- A campaign of "awareness and information on the responsible and rational use of mobile devices" will be conducted.

February 15, 2015. Taiwanese lawmakers passed new legislation in which:¹⁰

- Parents face fines if they allow children under the age of two to use tablets and smartphones
- Youth under 18 years of age are allowed devices for a 'reasonable length of time'

March, 2014. It is illegal to market cell phones to children less than seven years of age in Belgium.¹¹

1.5 SAFETY CODE 6 DOES NOT PROVIDE THE NECESSARY PROTECTION FOR CHILDREN AND PREGNANT WOMEN.

Modeling indicates that children absorb substantially higher RFR doses from cell phones, in deeper brain structures, than do adults.¹²

Research has also found proportionately higher doses to tissues in children compared with adults, from wireless laptops and utility meters.^{13,14,15}

Research has linked exposure during pregnancy to adverse effects. The authors of a case-control study published in 2015 stated, "use of mobile phones can be related to early spontaneous abortions".¹⁶

Maternal mobile phone use during the first trimester of pregnancy may contribute to slowing or halting of embryonic development,¹⁷ possibly due to effects on membrane receptors in human amniotic cells.¹⁸

A 2019 study of over 55,000 pregnant women and infants in four countries (Denmark, the Netherlands, Spain and Korea) linked maternal cell phone use during pregnancy with shorter pregnancy duration and increased risk for preterm birth.¹⁹

1.6 HEALTH CANADA IGNORES THE SCIENTIFIC EVIDENCE AND HOW WE USE OUR DEVICES

Hundreds of peer-reviewed scientific publications describe biological effects and harms with exposures far below Canada's limits, in humans, plants, laboratory animals and wildlife such as birds and pollinators.^{20, 21,22 ,23}

CBC Marketplace "The Secret Inside your Cell Phone"²⁴

- 81% of Canadians have not seen the warning message in their phone or manual
- 67% of Canadians say they carry their phones in their pocket or directly against their body
- All 3 phones tested had emissions 3-4 times above Health Canada guidelines

Health Canada aligns Safety Code 6 with the US Federal Communications Commission which has just been ordered by a US Federal court to explain why it ignored scientific evidence showing harm from wireless radiation.^{25,26}

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- ¹ Table 5. Safety Code 6 (2015). https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/pdf/consult/_2014/safety_code_6-code_securite_6/final-finale-eng.pdf
- ² [Building science and radiofrequency radiation: What makes smart and healthy buildings - ScienceDirect](#)
- ³ <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=7892702&Language=E&Mode=1&Parl=41&Ses=2> at time 1540
- ⁴ http://www.c4st.org/images/documents/hesg/Health_Canada_Response_to_C4ST_References_of_140_Missing_Studies.pdf
- ⁵ <https://www.sciencedirect.com/science/article/pii/S0360132319305347?via%3Dihub#bib198> (Fig. 3)
- ⁶ <http://www.c4st.org/PMB>
- ⁷ <http://www.c4st.org/images/documents/hc-resolutions/medical-doctors-submission-to-health-canada-english.pdf>
- ⁸ <http://www.c4st.org/images/documents/hc-resolutions/scientific-declaration-to-health-canada-english.pdf>
- ⁹ <http://www.complianceandrisk.com/france-publishes-law-on-electromagnetic-waves/>
- ¹⁰ <http://www.dailymail.co.uk/news/article-2929530/Does-toddler-play-iPad-Taiwan-makes-ILLEGAL-parents-let-children-two-use-electronic-gadgets-18s-limit-use-reasonable-lengths.html>
- ¹¹ expatica.com/be/news/belgian-news/TMag-Mobile-phones-to-be-banned-for-children_259994.html.
- (10) <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=7945128&Language=E&Mode=1&Parl=41&Ses=2> at time 1640
- ¹² [10.1016/j.envres.2018.05.013](https://doi.org/10.1016/j.envres.2018.05.013)
- ¹³ [10.1002/bem.22128](https://doi.org/10.1002/bem.22128)
- ¹⁴ [10.1109/IMOC.2015.7369205](https://doi.org/10.1109/IMOC.2015.7369205)
- ¹⁵ [10.1002/bem.22094](https://doi.org/10.1002/bem.22094)
- ¹⁶ [10.1186/s40201-015-0193-z](https://doi.org/10.1186/s40201-015-0193-z)
- ¹⁷ <https://www.ncbi.nlm.nih.gov/pubmed/20568468>
- ¹⁸ [10.3109/09553002.2011.634882](https://doi.org/10.3109/09553002.2011.634882)
- ¹⁹ [10.1093/aje/kwz092](https://doi.org/10.1093/aje/kwz092)
- ²⁰ Russell, C. L. (2018). 5 G wireless telecommunications expansion: Public health and environmental implications. *Environmental Research*, 165, 484–495. <https://doi.org/10.1016/j.envres.2018.01.016>
- ²¹ BioInitiative 2012 Report. (2012). A rationale for biologically based exposure standards for low-intensity electromagnetic radiation. Sections 5-11,14,15,20. C. Sage, and D.O. Carpenter (Eds) *BioInitiative Working Group*. <https://bioinitiative.org/>
- ²² Lázaro, A., A. Chroni, T. Tschulin, J. Devalez, C. Matsoukas, and T. Petanidou. “Electromagnetic Radiation of Mobile Telecommunication Antennas Affects the Abundance and Composition of Wild Pollinators.” *Journal of Insect Conservation* 20, no. 2 (April 26, 2016): 315–24. <https://doi.org/10.1007/s10841-016-9868-8>
- ²³ Miller, A. B., Sears, M. E., Morgan, L. L., Davis, D. L., Hardell, L., Oremus, M., & Soskolne, C. L. (2019). Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices. *Frontiers in Public Health*, 7. <https://doi.org/10.3389/fpubh.2019.00223>
- ²⁴ [The secret inside your cellphone \(CBC Marketplace\) - YouTube](#), now has over 4.5 million views
- ²⁵ <https://ehtrust.org/in-historic-decision-federal-court-finds-fcc-failed-to-explain-why-it-ignored-scientific-evidence-showing-harm-from-wireless-radiation/>
- ²⁶ [https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/$file/20-1025-1910111.pdf)