
Information Update

Health Canada Offers Practical Advice on Safe Cell Phone Use

October 4, 2011

The issue:

The number of cell phone users in Canada rose from 100,000 in 1987 to more than 24 million by the end of 2010. With their growing popularity, questions have been raised about their safety. Cell phones emit low-levels of radiofrequency (RF) energy. The RF electromagnetic energy given off by cell phones is a type of non-ionizing radiation. It is similar to the type of energy used in AM/FM radio and TV broadcast signals.

Cell phones in Canada must meet regulatory requirements that limit human exposure to RF energy. Health Canada has developed [guidelines for safe human exposure to RF energy](#).

Who is affected:

There are a small number of epidemiology studies that have shown brain cancer rates might be elevated in long-term/heavy cell phone users. Other epidemiology studies on cell phone users, laboratory studies and animal cancer studies have not supported this association. The International Agency for Research on Cancer's (IARC) recent classification of RF energy as "possibly carcinogenic to humans" is an acknowledgement that limited data exists that suggests RF energy might cause cancer. At present, the scientific evidence is far from conclusive and more research is required.

Health Canada reminds cell phone users that they can take practical measures to reduce RF exposure. The department also encourages parents to reduce their children's RF exposure from cell phones since children are typically more sensitive to a variety of environmental agents. As well, there is currently a lack of scientific information regarding the potential health impacts of cell phones on children.

What consumers can do:*

- Limit the length of cell phone calls
- Replace cell phone calls with text messages or use "hands-free" devices
- Encourage children under the age of 18 to limit their cell phone usage

What Health Canada is doing:

Health Canada has developed guidelines for safe human exposure to RF energy. The limits

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specified in Health Canada guidelines are based on an ongoing review of published scientific studies on the health impacts of RF energy. Using data from these studies, Health Canada set the general public exposure limits 50 times lower than the threshold for potentially adverse health effects.

Health Canada scientists continually review scientific studies in this area to ensure safety guidelines are sufficient for the protection of the health and safety of Canadians. The guidelines were updated in 2009, and the next update is planned for 2012.

Background:

The radiofrequency (RF) energy given off by cell phones and cell phone towers is a type of non-ionizing radiation. It is similar to the type of energy used in AM/FM radio and TV broadcast signals. Unlike ionizing radiation (as emitted by X-ray machines), RF energy from cell phones cannot break chemical bonds in your body.

Cell phones are designed to operate at the minimum power necessary to connect and maintain a quality call. Cell phones transmit and receive radio signals from a network of fixed, low-power, cell phone towers. These towers are usually located on rooftops, towers and utility poles. The RF energy exposure levels around cell phone towers are typically well below the safety limits and are not considered a health concern. The transmitting power of a cell phone varies, depending on the type of network and its distance from the cell phone tower. The phone transmitting power generally increases the further you move away from the nearest cell phone tower.

Cell phones are regulated by Industry Canada. This Department also oversees the licensing and placement of cell phone towers, considers the effects on the environment and local land use before towers are installed, and ensures that these towers comply with their regulatory requirements. Industry Canada has adopted part of Health Canada's RF exposure guidelines to protect the general public by ensuring that exposures from cell phones and cell phone towers do not exceed the specified limits.

For more information:

Consumers and health professionals wanting more information about this advisory from Health Canada can contact the Public Enquiries Line at 613-957-2991, or toll free at 1-866-225-0709.

Media enquiries related to this Advisory should be directed to Health Canada Media Relations at 613-957-2983.

How to report problems with consumer products (or) How to report side effects to health products:*

Provide relevant details about how to report adverse reactions / problems / concerns.

- **Fax:** 1-866-678-6789
- **Internet:** www.healthcanada.gc.ca/medeffect
- **Mail:** Canada Vigilance Program
Marketed Health Products Directorate
Ottawa, ON, Address Locator 0701E
K1A 0K9

Related Health Canada Web content:

- [Health Canada, Cell Phone Towers](http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/stations/index-eng.php) (<http://www.hc-sc.gc.ca/ewh-semt/radiation/cons/stations/index-eng.php>)
- *It's Your Health*, [Safety of Wi-Fi Equipment](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/wifi-eng.php) (<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/wifi-eng.php>)
- *It's Your Health*, [Electric and Magnetic Fields at Extremely Low Frequencies](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/environ/magnet-eng.php) (<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/environ/magnet-eng.php>)
- World Health Organization, [Electromagnetic fields and public health - mobile phones](http://www.who.int/mediacentre/factsheets/fs193/en/index.html) (<http://www.who.int/mediacentre/factsheets/fs193/en/index.html>)
- World Health Organization, [Electromagnetic fields and public health - base stations and wireless technologies](http://www.who.int/mediacentre/factsheets/fs304/en/index.html) (<http://www.who.int/mediacentre/factsheets/fs304/en/index.html>)
- International Agency for Research on [Cancer electromagnetic fields](http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf) news release (http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf)

For industry and professionals

- Health Canada's [Consumer and Clinical Radiation Protection Bureau](http://hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgesc/psp-ppp/ccrpb-bpcrcc-eng.php) (<http://hc-sc.gc.ca/ahc-asc/branch-dirgen/hecs-dgesc/psp-ppp/ccrpb-bpcrcc-eng.php>)
- Health Canada's [RF exposure guidelines \(Safety Code 6\)](http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct-eng.php) (http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct-eng.php)
- Industry Canada's [Radio Standards Specification 102](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html) (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html>)
- Industry Canada's [Client Procedures Circular CPC-2-0-03](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html) (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html>)
- Industry Canada, Consumer Trends Update - [The Expansion of Cell Phone Services](http://www.ic.gc.ca/eic/site/oqa-bc.nsf/eng/ca02267.html) (<http://www.ic.gc.ca/eic/site/oqa-bc.nsf/eng/ca02267.html>)
- Industry Canada's [Guidelines for the Protection of the General Public in Compliance with Safety Code 6](http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf05990.html) (<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf05990.html>)
- World Health Organization, [Electromagnetic Fields](http://www.who.int/topics/electromagnetic_fields/en/) (http://www.who.int/topics/electromagnetic_fields/en/)

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Media Enquiries:

Health Canada
(613) 957-2983

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Public Enquiries:

(613) 957-2991
1-866 225-0709