



## Wi-Fi in Schools: Should you be worried about your kids?

Everywhere you go it's getting easier and easier to connect to the Internet. Smartphones, tablets, and laptops can all connect via Wi-Fi and Wi-Fi access is common all around us at coffee shops, restaurants and stores. This connected trend is also at schools, with many setting up or expanding Wi-Fi services. But is there anything to worry about? Are kids at risk from being exposed to Wi-Fi?

### WHAT IS WI-FI?

Wi-Fi allows devices to wirelessly connect to the Internet as well as communicate with each other. It uses electromagnetic fields (EMF) to send and receive signals. This is similar to how radios receive their signals from transmission towers, but in this case, the transmitter is in close proximity, is much smaller and has a much weaker signal. These electromagnetic fields are a form of very low energy radiation, like visible light, but at much lower energy.

### IS WI-FI DANGEROUS?

There are concerns that exposure to EMF could increase the risk of developing cancer. Extensive studies have been conducted to determine if this is the case. There has been no conclusive link between EMF exposure and the development of cancer. It is known that exposure to high enough levels of EMF can cause tissues in the body to heat up.

Industry Canada has taken measurements to determine how much exposure people receive from the EMF emitted by Wi-Fi. The exposure levels were compared to limits set in Safety Code 6, Health Canada's guideline for radiofrequency exposure. This guideline has set the public exposure limit 50 times below the level at which any significant tissue heating would occur and there would be no adverse health effects. The maximum exposure level found by Industry Canada at 20 cm from a Wi-Fi access point (transmitter) was 10.59% of the exposure limit set by Health Canada in Safety Code 6. Typically in schools, children will be several meters away from an access point, in which case the exposure would be thousands of times below the Safety Code 6 limits, as exposure decreases rapidly with distance.

### STAY CONNECTED WITHOUT WORRY

Wi-Fi can allow for the use of a diverse range of tools to enhance the learning environment. The exposure to EMF due to Wi-Fi is minimal and there is no need for parents to worry about sending their children to a Wi-Fi enabled school.

### RESOURCES

To learn more, read Industry Canada's Case Study: Measurements of Radiofrequency Exposure from Wi-Fi Devices:

<http://ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10383.html>

and Health Canada's Safety Code 6: [http://hc-sc.gc.ca/ewh-semt/pubs/radiation/radio\\_guide-lignes\\_direct/index-eng.php](http://hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct/index-eng.php) and

[http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio\\_guide-lignes\\_direct/safety\\_code\\_6-code\\_securite\\_6-eng.php](http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct/safety_code_6-code_securite_6-eng.php)