



FRIDAY MARCH 24, 2017 IN COMPANY STATEMENTS

Company responses: Cellphones

We approached both cellphone companies and government bodies about our story on cellphone safety. Here's what they told us:

Apple

We have no comment to add to your story.

Relevant information on iPhone RF Exposure can be found on our website here:

<http://www.apple.com/legal/rfexposure/iphone9,3/en/>

LG

Body SAR testing is a heavily regulated area, with standards carefully identified by the government of Canada with a focus on ensuring consumer safety. LG takes the responsibility of producing safe, quality products seriously by ensuring we are compliant with such government standards. The LG G5 was tested according to the guidelines set by ISED for body SAR testing and was granted approval.

LG includes the required safety information in both the user manual, which is available online, and the Quick Start Guide, which accompanies the LG G5. Several instructions and claims are provided in the For Your Safety section of the manual and guide for each device to ensure safe and reliable use, each of which are given equal prominence and importance. Bold wording instructs consumers to read such information prior to using the device.

Samsung

Canadian customers can be assured that Samsung tests to meet or exceed all applicable national and international regulatory standards.

Health Canada

Here is some information on these issues that should sum up our position on the topic. On RF exposure:

The Government of Canada is committed to protecting the health and safety of Canadians and protecting them from environmental risks, including those potentially posed by exposure to radiofrequency (RF) electromagnetic fields. This is the kind of energy given off by various electronic devices such as cell phones and Wi-Fi, as well as broadcasting antennae and cell phone towers.

Health Canada has established an RF exposure guideline (Safety Code 6) which recommends human exposure limits to protect Canadians from radiofrequency electromagnetic fields from various wireless devices, in the frequency range from 3 kHz to 300 GHz. The Safety Code 6 (SC6) limits for human exposure to RF energy are designed to provide protection for all age groups, including children, on a continuous basis. SC6 has always established limits that are far below the threshold for the two established health effects (i.e. tissue heating and nerve stimulation), and take into account the total exposure from all sources of RF energy. Canada's limits are consistent with the science-based standards used in other parts of the world (e.g., the United States, the European Union, Japan, Australia and New Zealand) and provide protection against all known adverse health effects from RF energy.

While Health Canada recommends limits for safe human exposure, Health Canada does not regulate the general public's exposure to electromagnetic RF fields. Wireless devices and their associated infrastructure (such as cell towers) are required to comply with SC6. These requirements are regulated by Innovation, Science and Economic

Development Canada.

On using research in public policy:

The Government is committed to using the best available science to inform public policy. Health Canada carefully tracks scientific advances in the peer-reviewed literature. However, the results of individual studies rarely provide a sufficient scientific basis for policy change. Instead, studies are considered in the context of all the available information in a "weight of evidence" approach. Health Canada takes into account both the quantity and quality of studies, and gives more weight to studies that have been reproduced and that meet the highest standards of rigour and control. While it is true that some studies have reported various biological effects at levels of exposure below Canadian and international safety limits, these studies are in the minority. The totality of the scientific evidence does not support any link between exposure to radiofrequency electromagnetic fields at levels below Canada's established limits and health effects.

On issues raised by HESA:

While Health Canada coordinated the Government of Canada response, several other departments were also engaged in its development. The response recognizes federal government efforts directed at increasing awareness and responding to Canadians' concerns about the potential biological effects from electromagnetic energy. This includes the funding of research proposals through the Canadian Institutes of Health Research, monitoring the international scientific literature, and promoting information sharing amongst all levels of government. A number of recommendations within the Standing Committee on Health's report were directed at organizations outside the federal government. Health Canada has shared the report with these organizations. Health Canada has been contributing to the development of the World Health Organization's Environmental Health Criteria Monograph on radiofrequency fields. This large-scale international initiative is intended to provide an updated risk assessment related to any potential health outcomes from exposure to RF fields and is widely recognized as a more comprehensive review than could be undertaken by any single jurisdiction. The document is scheduled for publication later in 2017.

Actions directed at responding to Canadians' concerns related to potential negative health effects from electromagnetic energy have already been initiated and are explained in detail in the Government Response, (<http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=8481964>). Health Canada reminds all Canadians that their health is protected from RF fields by the human exposure limits recommended in SC6. Health Canada has established and maintains a general public exposure limit that incorporates a wide safety margin and is therefore far below the threshold for potentially adverse health effects. The Department continues to monitor and analyze ongoing scientific research on this issue and should new scientific evidence arise demonstrating that exposure to RF fields poses a health risk to Canadians, Health Canada will take the appropriate action to safeguard the health of Canadians.

Position on recent studies, including NTP study:

Health Canada scientists evaluate peer-reviewed scientific studies on an ongoing basis to assess possible health risks from exposure to RF energy. In the case of the National Toxicology Program (NTP) study, Report on Partial Findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley SD rats (Whole Body Exposures), a portion of the results from a group of carcinogenesis studies of radiofrequency exposure in rats was released in May of 2016.

The preliminary results of the NTP study show a statistically significant increase in certain types of cancer among male rats exposed to high levels of RF energy for 18 hours a day (10 min on, 10 min off), every day for two years. While some advocates have argued that this study provides conclusive evidence, there are numerous scientific questions about this study that remain to be addressed. For example, the preliminary findings noted that control animals had a shorter lifespan than the RF exposed group. Health Canada will assess the full study results once they are released to the public.

The results of the NTP study will be considered alongside other similar animal cancer

studies, and human epidemiology data, as part of the weight of evidence. Should the weight of evidence ever indicate there is a health risk to Canadians at levels below the limits in SC6, the Department would take appropriate action.

Based on the latest scientific evidence, the Department has determined that exposure to RF energy at levels beneath the limits established by Health Canada is not dangerous to the public. Health Canada's position, is as outlined in the Government response to the report of the House of Commons Standing Committee on Health.

Innovation, Science and Economic Development Canada

Q1. Why do ISED testing rules allow for a 15 mm distance between the phone and testing phantom?

The ISED technical standard is based on recognized international measurement standards developed by the International Electrotechnical Commission (IEC) and the Institute of Electrical and Electronics Engineers (IEEE). These organizations continuously look at possible updates, including to the measurement or separation distance requirements for devices such as cell phones. ISED is closely monitoring international developments on this issue, and any changes will be reflected in Canada's standard.

Q2. Given that phones we tested failed when tested directly against, can Canadians be confident that cell phones are safe when used directly against the body?

Canada's standards for cellphone safety testing are among the most stringent in the world, and exceed those used in most European and Asian countries and Australia. It's important to note that phones are tested at full power for the duration of the test, whereas during use by consumers they operate at significantly less than full power most of the time. As well, Health Canada's Safety Code 6 sets limits for exposure to wireless radiofrequency energy at 50 times lower than the threshold for potentially adverse health effects. Therefore, cell phones are still safe when carried directly against the body.

Q3. Why are phones not required to pass the safety limit of 1.6W/kg with no separation distance, the way they are worn?

As pointed out in our response to Question 1), the ISED technical standard is based on recognized international measurement standards. ISED is closely monitoring international developments on this issue – For example, the World Health Organization's Environmental Health Criteria Monograph on Radio Frequency fields, which is scheduled for publication in late 2017. We will reflect any changes in Canada's standard.

Q4. Given the results of our SAR test and survey will ISED consider requiring manufacturers to make body-worn distance messages more visible in the phones they sell?

ISED requires manufacturers to provide information on the proper usage of wireless devices in their user manuals. ISED will continue to work with Health Canada, international standard setting bodies, other regulators, cellphone manufacturers and other stakeholders on means to improve communication with