

WHEN DOUBT EXISTS, USE A PRECAUTIONARY APPROACH

USE OF THE PRECAUTIONARY PRINCIPLE REGARDING WIRELESS RADIATION

Europe The European Union published document on the Precautionary Principle (PP) states that when three criteria are fulfilled it is time to implement the PP. All three criteria are currently fulfilled with regards to wireless radiation emissions:

1. *When scientific information is insufficient, inconclusive, or uncertain* – this is the basis for the IARC classification of cell phone radiation as a possible carcinogen (Class 2B)
2. *When there are indications that the possible effects on human health may be potentially dangerous* - epidemiological studies from Interphone, Hardell and CERENAT show an increased risk of brain cancer with long term exposures.
3. *When effects are inconsistent with the chosen level of protection* - epidemiological studies, showing increased risk in long-term avid users, were generated in populations using regular cell phones, meeting all current safety standards; this means that the current safety standards are insufficient to protect users because *risk of developing cancer increases in long-term avid users.*

Canada The Health Canada document: **Decision-Making Framework for Identifying, Assessing, and Managing Health Risks**, is quoted extensively below. (each quote is italicized and indented). This document defines the Precautionary Approach as:

An approach to risk management decision-making that is applied in circumstances of scientific uncertainty, reflecting the need to take action in the face of a potentially serious risk without awaiting the results of scientific research. Cost-effective action must be taken when there are threats of serious or irreversible damage to human health, even if some cause and effect relationships are not fully established scientifically.

Health Canada provides this statement on the use of a precautionary approach:

A key feature of managing health risks is that decisions are often made in the presence of considerable scientific uncertainty. A precautionary approach to decision making emphasizes the need to take timely and appropriately preventative action, even in the absence of a full scientific demonstration of cause and effect.

This emphasis in decision making is reflected in the final report of the Krever Commission of Inquiry. It concludes that a lack of full scientific certainty should not be used as a reason not to take preventive measures when reasonable evidence indicates that a situation could cause some significant adverse health effect.

PRECAUTION DOES NOT MEAN PREVENTION OF USE OF WIRELESS TECHNOLOGY

Implementation of the Precautionary Principle will not prevent technological developments. Industry can and will rise to the challenge and develop more efficient, less-radiation-emitting technology. Further biomedical research on radiation effects will also create new knowledge and new jobs in research and technology.

‘BETTER SAFE THAN SORRY’

Today scientists are divided - not because the nature of harm has been proven beyond doubt, but because while more and more studies show harm is possible, evidence is inconsistent, suggesting that harmful health effects are indeed possible.

The Precautionary Principle was developed to be used in precisely this situation - where scientific uncertainty with concomitant indications of possible harm requires society to wait for more scientific evidence and better evaluation of the scientific evidence.

HC: A key feature of managing health risks is that decisions are often made in the presence of considerable scientific uncertainty. A precautionary approach to decision making emphasizes the need to take timely and appropriately preventative action, even in the absence of a full scientific demonstration of cause and effect.

APPLICATION OF THE PRECAUTIONARY PRINCIPLE IN CANADA AND AROUND THE WORLD

HC: This general concept has been expressed in a variety of contexts, especially in the area of environmental protection. The most widely quoted is Principle 15 of the Declaration of the Rio Conference on Environment and Development (1992). Canada has a long standing history of wisely implementing the PP. The Canadian Environmental Protection Act (1999) states that "... the government of Canada is committed to implementing the precautionary principle that, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".

HC: The Health Canada Decision Making Framework treats the concept of precaution as pervasive. As such it does not require extremes in the actions taken. Instead, risk management strategies reflect the context and nature of the issue, including the urgency, scope and level of action required.

PP MEASURES SHOULD BE PROPORTIONAL TO THE POTENTIAL SEVERITY OF THE RISK

Precautionary measures should be proportional to the potential severity of the risk to public health, and to societies chosen level of protection. Scientific evidence of the potential for harm regarding wireless radiation emissions is mounting, far beyond that examined when the WHO Class 2B carcinogen caution was issued in 2011.

PP MEASURES SHOULD BE COST EFFECTIVE

Measures should be cost effective, with the goal of generating an overall net benefit to society at least cost; and efficiency in the choice of measures.

RECOMMENDATIONS

Given the urgent nature and possible impact of this issue, we recommend the following measures be implemented:

1. **Public Awareness** Conduct a national campaign to educate Canadians about methods to minimize exposure to RF radiation, ban Wi-Fi in daycare centres and pre-schools, and ban the marketing of wireless devices to children.
2. **Recognition** Protect individuals who are sensitive to RF radiation starting by accommodating them in federal workplaces and federal areas of responsibility.
3. **Report** Create an adverse effects reporting system for Canadians and a publically available database to collect improved incidence data regarding potential links between health effects and exposure to EMR.

In addition, we urge Health Canada to immediately commence to conduct a **comprehensive systematic review** subject to international standards.