



Association pour la santé environnementale du Québec
Environmental Health Association of Québec

Information Sheet 1:

Per- and polyfluoroalkyl substances (PFAS)

What are Per- and polyfluoroalkyl substances (PFAS)?

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals. There are over 4,700 different substances that fall under this category. They are used in many everyday products, industries, and specialized applications to make things resistant to heat, water, and oil. PFAS can be found in firefighting foams, fabrics, cosmetics, foods, lubricants, repellents, textiles, and food packaging materials. (Government of Canada, 2023)

According to the Government of Canada, “These chemicals have become a matter of concern due to their persistence in the environment and potential health risks. They are very resistant to degradation, meaning they can persist in the environment for a long time without breaking down. PFAS can accumulate in the bodies of animals and humans, and they have been detected in water, soil, air, and even in the blood of people worldwide.” (2023)

According to several peer-reviewed studies, some of the potential risks associated with PFAS exposure include:

- **Human Health Impacts:**
 - liver damage
 - kidney dysfunction
 - thyroid disruption
 - impaired immune system
 - nervous system disorders or dysregulation
 - metabolic and body weight changes
 - reproductive issues
 - developmental issues
- **Environmental Effects:**
 - toxicity to wildlife's immune and nervous systems
 - impacts on growth, reproduction, and development of wildlife
 - bioaccumulation in living organisms

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- biomagnification in air-breathing organisms, increasing the risk of adverse effects
- hazardous effects on plant life
- **Potential Risks of Cumulative and Mixed Exposure:**
 - increased likelihood of adverse effects in humans and the environment
 - combined exposure to multiple PFAS compounds intensifies potential harm

Individuals with Multiple Chemical Sensitivity (MCS) and other similar health conditions are particularly vulnerable to the risks associated with exposures to PFAS. Together, we can make a difference by demanding comprehensive and up-to-date regulations that address the risks associated with PFAS to human and environmental health.

Let us unite in our efforts to create a safer and healthier future for all Canadians.

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