

### Understanding the Implications of PFAS Chemicals for the General Public

Per- and polyfluoroalkyl substances (PFAS), or “forever chemicals” are a group of human-made chemicals that have been used in various industrial applications and consumer products since the 1940s. Known for their resistance to water, grease, and stains, PFAS are found in a wide range of products, including non-stick cookware, water-repellent clothing, stain-resistant fabrics, and firefighting foams. While these chemicals have made many aspects of modern life more convenient, their widespread use and persistence in the environment have raised significant health and environmental concerns.

#### What are PFAS?

PFAS are a large family of over 4,700 chemicals. They are often referred to as “forever chemicals” because they do not break down easily in the environment or the human body. This persistence means that PFAS can accumulate over time, leading to potential long-term exposure even from past uses. Two of the most studied PFAS compounds are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS).

#### Health Implications of PFAS

Exposure to PFAS has been linked to a variety of adverse health effects. Some studies suggest that PFAS can:

- **Impact the Immune System:** PFAS exposure can reduce the effectiveness of vaccines and increase the risk of infections.
- **Affect Development:** PFAS may interfere with the growth and development of fetuses, infants, and children, leading to potential developmental delays.



- **Cause Cancer:** Certain PFAS compounds have been associated with an increased risk of cancers, such as kidney and testicular cancer.
- **Alter Liver Function:** PFAS exposure can lead to elevated liver enzymes and potentially liver damage.
- **Disrupt Hormones:** PFAS can interfere with the body's natural hormones, affecting thyroid function and reproductive health.

### **Environmental Concerns**

PFAS contamination is a significant environmental issue. These chemicals have been found in soil, air, and water around the world. Because of their persistence, they can travel long distances and accumulate in the food chain, affecting wildlife and humans alike. Contaminated drinking water is a primary concern, with many communities discovering PFAS in their water supplies, leading to costly cleanup efforts and public health interventions.

### **Impact on People with Multiple Chemical Sensitivity (MCS)**

For individuals with Multiple Chemical Sensitivity (MCS), exposure to PFAS can be particularly problematic. MCS is a condition where due to sensitization, individuals experience adverse reactions to low levels of various chemicals. People with MCS have heightened sensitivity to environmental pollutants, leading to more severe health issues than the general population.

Symptoms of MCS can include headaches, fatigue, dizziness, nausea, and respiratory problems, which can be exacerbated by PFAS exposure. The persistence of PFAS in the environment and their presence in everyday products mean that individuals including those with MCS must be vigilant about avoiding exposure to these chemicals, which can be challenging given their widespread use and presence in human tissue, and the environment.



## What Can You Do?

Understanding and mitigating the risks associated with PFAS requires a multifaceted approach:

- **Stay Informed:** Keep up-to-date with information from credible sources about PFAS and their potential health impacts.
- **Filter Your Water:** Use water filters certified to remove PFAS to reduce exposure from drinking water.
- **Choose PFAS-Free Products:** Look for products labeled as PFAS-free, especially when purchasing items like waterproof clothing and other items, outdoor gear such as clothing, tents and sleeping bags, and stain-resistant fabrics and furnishings.
- **Choose your cookware carefully:** Prefer choices such as stainless steel, cast iron, glass or ceramic. Watch out for “greenwashing” - cookware can be advertised as ‘healthy non-stick cookware’ - PFAS can be replaced by any other “forever” chemical.
- **Advocate for Change:** Support policies and regulations aimed at reducing PFAS use and cleaning up contaminated sites. Advocacy can help drive the development of safer alternatives and stricter environmental protections.

## Conclusion

PFAS chemicals pose a significant risk to both human health and the environment, with particularly severe implications for individuals with Multiple Chemical Sensitivity (MCS). By staying informed, making conscious choices, and advocating for change, we can reduce exposure to these harmful chemicals and protect vulnerable populations.