

IMPACTS OF PFAS

PFAS (Per and Poly-Fluoroalkyl Substances) are:



a group of human-made chemicals.



used in various applications due to resistance to heat, water, and oil.

ALSO KNOWN AS

FOREVER

chemicals because they don't break down naturally and accumulate in the environment, people, and animals over decades-long exposure.

Where do PFAS Air Emissions come from?

PFAS air emissions refer to the presence of PFAS pollutants in the air, either as emissions from industries that manufacture or use PFAS or as particles and gasses that can evaporate or be released from products that contain PFAS.

PFAS are present in firefighting foams, stain repellents, nonstick cookware, and some types of food packaging, among others. Because of stability and persistence, PFAS can stay in the air for a long time and be transported long distances.

PFAS air emissions can come from various sources:

<p><u>Industrial Sites:</u> Factories that produce or use PFAS chemicals can release them into the air.</p>	<p><u>Waste & Landfill Sites:</u> Waste sites and landfills can release PFAS into the air, particularly if the waste is burned or incinerated.</p>	<p><u>Consumer Products:</u> Some consumer goods, like stain-resistant fabrics, non-stick cookware, food packaging, etc., can release PFAS into the air during use or disposal.</p>
<p><u>Contaminated Soil:</u> PFAS in contaminated soil can be distributed and released into the air, especially during construction or remediation activities.</p>	<p><u>Wastewater Treatment:</u> Certain wastewater treatment processes can create PFAS vapors, releasing them into the air.</p>	<p><u>Firefighting Foam:</u> PFAS are common ingredients in firefighting foams used by military and civilian firefighters during training and in response to fuel fires. These can result in air pollution.</p>

How can I be exposed to PFAS?

PFAS exposure from contaminated drinking and groundwater (well water) is well documented, with many studies researching PFAS as a water contaminant. In contrast, the study of PFAS as an air pollutant is still new, and is an emerging area of research.

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How Can I Be Exposed to PFAS?

Exposure to PFAS or “forever chemicals” can occur in several ways:



Ingestion: Ingestion or consuming PFAS from contaminated water and food sources is the primary route of exposure.



Absorption: PFAS can also be absorbed into the skin through contact with PFAS-contaminated water sources and soil.



Inhalation: Inhalation is the most direct way to be exposed to PFAS air emissions. PFAS released from industrial processes, waste sites, or consumer products like non-stick cookware can be inhaled directly.

How can I protect myself and my loved ones from PFAS exposure?

Opting for PFAS-free products can reduce exposure.

For indoor air quality, regularly ventilating your indoor spaces (e.g., use of a cooking range hood or vent while cooking) is essential as it can reduce the concentration of PFAS in indoor air.



If you or your loved ones work in an industry where you may be exposed to PFAS, ensure that appropriate safety measures are followed, such as wearing protective equipment and ventilating workspaces.

And advocate for stricter regulations on PFAS, including their use in consumer products, industrial emissions, and waste management.

Health Effects of PFAS Air Exposure:

Exposure can have various effects. However, these are usually the result of overall exposure to PFAS pollutants from the air, water, and food, not just air exposure



Immune System: Certain PFAS may affect the immune system, possibly leading to a reduced immune response in vaccines.



Reproductive and Developmental Effects: Studies have linked PFAS exposure to low birth weights, effects on growth, learning, and behavior of infants and older children, and potential effects on fertility and pregnancy.



Liver: PFAS can cause changes in liver enzymes and other markers of liver function, leading to an increased risk of liver damage.



Kidney and Testicular Cancer: Prolonged PFAS exposure may increase the risk of testicular and kidney cancers. Kidney cancer is the primary cancer associated with PFAS.



Cardiovascular System: Certain PFAS can cause increases in serum lipid levels, particularly total cholesterol and low-density lipoprotein (LDL) cholesterol, increasing your risk for heart disease, stroke, and high blood pressure.



Endocrine System: PFAS may interfere with natural hormones in the body. This can lead to various potential health effects, such as altered thyroid and metabolism function, which can increase the risk of weight gain over time, particularly in women.