

# FIREFIGHTER PFAS EXPOSURES



PFAS are widely used in consumer goods, pesticides, artificial turf, firefighting foam & gear, and countless other industries. PFAS are highly persistent, making them long-lasting and accumulative.



## 01 — Class B Aqueous Film-Forming Foam (AFFF)

Class B Aqueous Film-Forming Foam or AFFF is used in the fire service to fight fuel fires and contains a mixture of many different PFAS chemicals. Many departments have trained with and/or used this type of foam. Users are exposed when spraying it or upon contact, especially if not wearing SCBA, proper gear, or gloves. This class of foam is largely linked to PFAS contaminated drinking water sources when applied and improperly cleaned up.



## 02 — Turnout Gear

Turnout gear textiles are manufactured with a multitude of PFAS to provide water and oil repellency. As this gear heats up, more and more of these chemicals are shed from the gear. Some gear manufacturers make PFAS-free outer shells, but PFAS remain in the moisture barrier. It is always a healthy practice to wash your hands after handling gear, store gear away from living spaces, and wash your gear after a fire.



## 03 — Fire Station Dust

According to a 2021 Harvard study, fire station dust particulates contain PFAS and were found in all areas of the study's station - kitchen, bunks, garages, etc. - with the highest median concentrations being found in turnout gear locker rooms.



## 04 — Building Fires

PFAS are used in many building materials and furnishings to impart stain- and water-resistance and are released when those products burn. Wearing SCBA, turnout gear, and gloves can help protect workers from PFAS and other harmful chemicals (PAHs, flame retardants, dioxins, etc.) released or created in fires.



## 05 — Contaminated Food & Water

Food sources, food packaging, and drinking water are further potential PFAS exposure pathways and are all considered concerning given that they are directly ingested. PFAS move easily in the environment and can contaminate surface & groundwater, leading to potential contamination of fish, wildlife, & livestock food sources. Much water- and grease-resistant food packaging i.e. fast food wrappers, parchment paper, takeaway containers, & microwave popcorn bags contain PFAS. It is estimated that 200 million Americans are drinking PFAS contaminated water. Consider testing your private well & reducing dietary intake of food hunted or fished for if you live in an area where contamination has been found or is likely to have occurred.



## 06 — Consumer Goods

There are currently innumerable consumer product industries that include PFAS in their products, use PFAS in the making of their product, or unintentionally add PFAS to their products in production. Products that may use PFAS in any of these three ways include textiles, furniture & upholstery, carpeting, paints, pots & pans, artificial turf, cosmetics, sunscreens, guitar strings, dental floss, and many others.