Safeguard Firefighter Health Meeting Kit



WHAT'S AT STAKE

Firefighting is a hazardous job. Whether your firefighters volunteer a few hours a week, work per diem shifts, respond "on call" when their pager activates or have chosen firefighting as a career in your community.

WHAT'S THE DANGER

HEALTH AND SAFETY HAZARDS ASSOCIATED WITH FIRE FIGHTING

- While helping victims, there is possible exposure to contagious and infectious diseases including blood borne diseases such as AIDS, hepatitis B and C.
- Exposure to various combustion products. The toxicity of the smoke depends greatly on the fuel (the materials or chemicals being burnt), the heat of the fire, and how much oxygen is available for combustion. Common combustion products include:
    - fine particulate matter
    - carbon monoxide
    - carbon dioxide
    - nitrogen oxides
    - sulfur oxides
    - volatile organic compounds
    - formaldehyde
- Oxygen depletion – Hypoxia (the condition caused by little or no oxygen in the air) can result in a loss of physical performance, confusion, and inability to escape.
- Exposure to other chemicals, products, pharmaceuticals, and medicines, including opioids.
- Working with compressed gases (e.g., self-contained breathing apparatus)
- Situations where physical demands involve very strenuous work, force, repetition, awkward postures, and prolonged activities, often under extreme conditions.
- Wearing heavy equipment, self-contained breathing apparatus (SCBA), and personal protective equipment which may require more effort to perform the same tasks.
- Danger of driving at high speeds, often in difficult traffic or weather condition.
- Workplace violence or harassment from the public.
- Risk of injury from the various locations where fire department may be called to: explosion, unstable structures and surfaces, falling objects; or working at

heights or near traffic, water, confined spaces, large crowds, violent situations.
- Exposure to serious traumatic events (or consequence of the event) resulting in stress or post-traumatic stress disorder.
- Work shifts or extended workdays
- Working on Ladders.
- Heat Stress
- Excessive noise levels
- Ultraviolet radiation
- Fatigue
- Extreme temperatures (both cold and heat)
- Falls from heights
- Slips, trips, and falls

LONG-TERM HEALTH EFFECTS OF BEING A FIRE FIGHTER

The carcinogenicity of occupational exposure of a firefighter has led to the conclusions that there is:

- sufficient evidence for the following cancer types: mesothelioma and bladder cancer.
- limited evidence for the following cancer types: colon cancer, prostate cancer, testicular cancer, melanoma of the skin, and non-Hodgkin lymphoma

Fire Fighters also develop:

- back injuries and other strains.
- diseases such as AIDS and hepatitis.
- cardiovascular disease due to a multitude of toxic substances when fighting a fire. For example, carbon monoxide exposure is directly linked with cardiac toxicity.

HOW TO PROTECT YOURSELF

BEST NATIONAL FIREFIGHTER WORK PRACTICES

1. Full personal protective equipment (PPE) must be worn by firefighters throughout the entire incident, including a self-contained breathing apparatus (SCBA).
2. A second protective hood should be provided to all personnel in the department.
3. Prior to leaving the fire scene, firefighters should begin immediate rinsing and decontamination of gear (PPE) using soapy water and a brush if weather conditions allow.
4. After completion of the decontamination procedures and while still on scene, firefighters must wipe down exposed areas of the body (neck, face, arms and hands) using wipes.
5. All clothes and PPE must be washed after exposure to products of combustion or other contaminants.
6. Always remember to clean the cab of firetrucks. All personnel shall ensure their assigned unit has a clean apparatus cab.
7. Fire personnel should shower as soon as possible after being exposed to products of combustion or other contaminants.
8. PPE, especially turnout pants, must be prohibited in areas outside the apparatus floor (i.e., kitchen, sleeping areas, etc.) and should never be in the living quarters.
9. Wipes, or soap and water, should also be used to decontaminate and clean apparatus seats, SCBA’s and interior crew areas regularly, especially after incidents where personnel were exposed to products of combustion.

10. Ensure that fire apparatus and other emergency vehicle exhaust is properly vented with a code compliant vehicle exhaust capture and removal systems.
11. Provide annual training to firefighters on cancer prevention to include PPE best practices, hygiene and decontamination, tobacco and alcohol use awareness, fitness, and nutrition.
12. Make available annual physicals for firefighters, as early detection is the key to survival.
13. Make sure the fire department is documenting all fire or chemical exposures on incident reports or on personal exposure reports.

FINAL WORD

There are many inherent risks in firefighting, and your equipment should be protecting you, not adding to your health risks. These regulation and industry changes to reduce your exposure to PFAS are for the benefit and health of not only firefighters, but our communities, our water systems, and the wider environment.