# Advice for Firefighters on PFAS Exposure

## Understanding PFAS

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals (including PFOS and PFOA) used since the 1940s in products such as non-stick cookware, waterproof fabrics, grease-resistant food packaging, cosmetics, and paints. Because of their chemical structure, PFAS do not easily break down; they persist in the environment and the human body, earning the nickname 'Forever Chemicals'.

Everyone is exposed to some level of PFAS, mainly through contaminated food or water, but contact with everyday products and indoor dust also contributes to the overall body burden.

Many health findings are based on associations, not absolute proof of cause, though evidence is strongest for cancer. It is important to note that that a person's risk depends on the specific PFAS exposed to, the amount of exposure, and how long exposure lasts.

As scientific evidence grows about potential health risks, governments are taking action to phase out and ban PFAS-containing products

# PFAS in Firefighting

For firefighters, PFAS exposure may be higher than that of the general population because of exposure through historic use of PFAS containing foams, fire station environments, its use in firefighting PPE, and PFAS released from burning consumer products during fires.

**Foam**

PFAS (especially PFOS and PFOA) have been used in Aqueous Film Forming Foams (AFFF) since the 1960s due to their exceptional ability to extinguish liquid fuel fires. PFOS production and use was globally restricted and phased out in foams beginning in 2009, with most Fire and Rescue Services replacing PFOS foam between 2011-2015. Manufacturers then moved to alternatives such as PFOA, the use of which was restricted in 2020 and banned in 2025.

Fluorine-free foams (F3) were introduced in the 2000s and are now fire sector standard; CFRS committed to only buying Fluorine free foam from Jan 2023 onwards. Currently, CFRS do not use PFAS containing foam in operational or training contexts. The government aims to fully ban PFAS in firefighting foams by 2030.

**Firefighting PPE and Station Environment**

PFAS are used in firefighting PPE as solid coatings that help repel oil and fuel. In this solid form, the exposure risk is considered low, and there is currently no alternative material that meets the required EN safety standards. Firefighting PPE also contains a PFAS-based waterproof, breathable membrane within its internal layers, but this layer does not touch the skin. It functions much like the waterproof membranes found in everyday breathable outdoor jackets.

Fire stations often show higher-than-normal PFAS levels in dust and air due to historical chemical use and occupational activities. Even though PFAS containing products are no longer used the contamination remains as these chemicals do not degrade.

Firefighters may carry a higher PFAS body burden than the general public due to these factors.

## What the Service is Doing

The Service acknowledges the increased risk PFAS may pose, and the exposure firefighters may have experienced historically. We have kept pace with best practice at every stage as the knowledge base around PFAS changed and manufacturers reduced and removed PFAS from firefighting products.

CFRS only uses Fluorine Free Foams which do not contain PFAS.  We continue to review procurement practices to avoid PFAS-containing materials wherever feasible.

## Protecting Your Health

In April 2026 the government announced a new Firefighters' Concordat on Health and Wellbeing which includes a coordinated approach to firefighter health. The Concordat aims to improve prevention, early diagnosis and ongoing support for firefighters, including regular and consistent health screening and increased investment in research into the long-term risks associated with the profession.

While there are currently no NHS-led PFAS-specific screening programmes, firefighters should remain aware of screening routes for the cancers most associated with PFAS exposure:

### Testicular Cancer

- No national screening programme.
- NHS recommends monthly self-examination.
- See a GP immediately if you notice a lump or any change.

### Kidney Cancer

- No routine screening.
- Usually identified via ultrasound or CT scan when symptoms appear.
- Seek medical advice if you experience blood in the urine or persistent pain in the side/flank.

### Prostate Cancer

- Men over 50 or those at higher risk, such as firefighters, may request a PSA blood test from their GP.
- Discuss benefits and limitations with your GP first, as recommended by the NHS.

The NHS currently avoids broad cancer screening for the general population due to risks of false positives, unnecessary treatment, and limited test accuracy. However, more targeted screening for higher-risk groups may become available in the future as evidence grows.

In 2022, firefighting was classified as a Group 1 Carcinogenic occupation, this means that firefighters have a higher rate of developing and dying from cancer than that of the general public.

To help protect your long-term health, it's important that any occupational risks from firefighting are recorded in your medical records. GPs can add this information using SNOMED codes, which support clinicians in recognising work-related health conditions during any future assessments or diagnoses.

If you haven't already, you should contact your GP and ask them to add the following SNOMED codes to your medical record:

- **Firefighter (occupation):** *SNOMED code 96240005*
- **Occupational exposure to toxic agents:** *SNOMED code 16090571000119109*

Providing these codes helps ensure your medical history accurately reflects the risks associated with firefighting.

## What You Can Do

Here are some practical steps firefighters can take now:

### On the Job

- Follow current decontamination procedures after incidents and training.
- Use station hygiene measures consistently; wash hands, shower promptly after exposure, and avoid taking PPE into non-operational areas.

### PPE and Equipment

- Wear full PPE and respiratory protection appropriately.
- Support the Service to complete your routine face fit testing appointment when requested to do so.
- Avoid wearing contaminated kit in appliances, mess areas, or personal vehicles.
- Ensure kit is laundered according to service procedures.

## Health Monitoring

- Attend your Occupational Health 3-year medicals, engage with advice and follow recommended screening pathways.
- Participate in health and wellbeing programmes offered by the Service.
- Contact your GP with the SNOMED codes above.
- Report any concerning symptoms to your GP early.

## Key Message

PFAS exposure has been an unavoidable part of firefighting over past decades, but major steps have been taken across the sector, and within CFRS, to reduce exposure and transition to safer products.

While the possible risks associated with historical exposure cannot be removed, they can be managed, and your health can be protected through good hygiene practices, PPE care, early symptom awareness, and active engagement with Occupational Health.