Female Firefighters Face Increased Risk of Breast Cancer

A first-of-its-kind study finds these first responders are exposed to higher levels of toxic cancer-causing chemicals.

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For firefighters, saving the day comes with an increased risk of cancer. According to previous studies, one major contributor to this elevated cancer risk is high exposure to polyfluoroalkyl substances (PFAS), a class of chemicals found in some firefighting foams that have been linked to serious health effects, including liver damage, decreased fertility, asthma, thyroid disease and cancer.

But past findings focused mostly on male firefighters. What about female firefighters? A new study published in the journal Environmental Science and Technology reveals that women firefighters have a greater risk of breast cancer due to PFAS exposure, reports Berkeley News.

Researchers at the University of California, Berkeley; the University of California, San Francisco; and Silent Spring Institute are collaborating on the Women Firefighters Biomonitoring Collaborative, a long-term investigation into the chemical exposures faced by female firefighters.

For their first study, researchers collected blood samples from 86 women firefighters and 84 women who work in offices in downtown San Francisco. (San Francisco has one of the largest populations of women firefighters in the nation, thus making it ideal for the analysis.) During hourlong interviews, each participant was asked about workplace activities, eating habits and consumer product use to determine possible sources of PFAS exposure.

After testing for 12 types of PFAS, seven were found in detectable amounts in most participants' blood samples and four were found in detectable amounts in all participants' samples. Three of the seven PFAS—PFHxS, PFUnDA and PFNA—were detected at significantly higher amounts in firefighters' blood, compared with office workers' blood. (A separate recent study recommends that PFAS officially be classified as carcinogens, as they exhibit one or more characteristics of these cancer-causing substances.)

All participants received a digital report describing their individual results and were provided information and concrete steps on how to reduce PFAS exposure. The research team also detailed a new method that will allow them to rapidly screen blood samples for the presence of a variety of

different toxic compounds, which could help them identify other harmful exposures to female firefighters.

“We’re here, and our health is important,” said Lieutenant Heather Buren of the San Francisco Fire Department, a principal investigator of the Women Firefighters Biomonitoring Collaborative. “In many occupations, women are often overlooked and understudied. Firefighting is no different.”

She continued, “The strength in numbers, coupled with the continued and strong support from our administration and union, has allowed us to focus on the health of our women, which we hope will benefit all firefighters nationally.”

For related coverage, read “Firefighters Say the Law Doesn’t Protect Them After a Cancer Diagnosis,” “CDC Seeks Help in Tracking Cancer Among First Responders” and “Modern Wildfires Pose New Health Risks for Firefighters.”
