

'RISKING OUR LIVES'

There's a cancer epidemic in the fire service, and firefighters' gear is causing it



PHOTOS BY STEVEN VALENTI, REPUBLICAN-AMERICAN

Firefighter gear hanging on Engine 4 in Waterbury. The International Association of Firefighters is sounding the alarm about using a class of synthetic materials known as PFAS to make the gear, saying the materials are increasing cancer rates in firefighters.

BY LIVI STANFORD |
REPUBLICAN-AMERICAN

EACH work day, Sam Kinkade cannot shake one lingering thought as he dons his fire-fighting turnout gear: will the gear meant to protect him make him sick?

The International Association of Firefighters is sounding the alarm about using a class of synthetic materials known as PFAS to make the gear. The organization representing more than 343,000 firefighters contends the materials are leading to increasing cancer rates, killing firefighters.

"It is always in the back of your head," said Kinkade, a member of the executive board of the Waterbury Fire Fighters Association Local IAFF 1339. "Is this the time that I am going to get cancer? Am I going to make it through retirement? We don't want to have long-term health issues when we leave."

Lt. Jonathan Schultz, president of the IAFF Local 1339, agreed. "You are constantly exposed," he said. "It is not once. It is five times a day. Each time you go to work, that compounding factor presents itself."

Firefighting protective gear consists of pants, a jacket and a hood.

An exterior shell is likened to an abrasive raincoat that sheds a lot of water. The interior layer has two components: thermal protection, and then between the exterior layer and the interior layer is a membrane that is waterproof, breathable fabric likened to Gore-Tex.

Schultz said the gear reduces the risk of a firefighter catching fire.

"When you are encapsulated in the gear and it is worn properly, no part of your body is immediately exposed to the environment," he said. "It is how you protect against smoke and heat."

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THE NUMBERS

Nationally, cancer is the No. 1 issue in the fire service, said Neil McMillan, director of science and research at the International Association of Firefighters. He said 75% of all line-of-duty deaths are attributable to cancer.

Jamie DeWitt, a professor in environmental and molecular toxicology at Oregon State University, said a correlation exists between PFAS and several types of cancer, with the strongest evidence with kidney and testicular cancer. DeWitt said PFAS exposure has been linked to thyroid damage and alterations in levels of thyroid hormones.

TESTING THE GEAR

Turnout gear, which protects firefighters who must work in excessive smoke and heat, must meet a National Fire Protection Agency standard that requires it to pass an ultraviolet light degradation test. The gear to be exposed to UV light for 40 hours without degradation. In March 2023, the International Association of Firefighters filed a lawsuit against the NFPA "for its role in imposing a testing standard that effectively requires the use of PFAS in firefighter protective gear." **Story on Page 2B.**



"YOU NEED A GOOD SUPPORT SYSTEM." From left, Waterbury fire Capt. Ronald Maia, and firefighters Joe Bogdanski and Michael Shea share stories about their careers, family and cancer. **PAGE 3B.**