

*“You are constantly exposed. It is not once. It is five times a day. Each time you go to work, that compounding factor presents itself.”* — WATERBURY FIRE LT. JONATHAN SCHULTZ, PRESIDENT OF THE IAFF LOCAL 1339



PHOTOS BY STEVEN VALENTI REPUBLICAN-AMERICAN

Firefighter Mike Shea, left, and Capt. Ron Maia, both diagnosed with cancer, work at Northside firehouse in Waterbury.

## CANCER: ‘Affects the immune system’

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PFAS are used to make stain, water, and oil-resistant coatings in many products. Several scientists have said there is a strong correlation between PFAS exposure and cancer and chronic diseases. For example, the International Agency for Research on Cancer has classified one PFAS chemical (perfluorooctanoic acid or “PFOA”) as a known human carcinogen.

While there are no exact numbers available concerning those with cancer in the fire service in Waterbury because, due to HIPAA, there is no readily available data collected, there are at least four confirmed cases among city firefighters. Joe Bogdanski, Capt. Ronald Maia and Michael Shea were diagnosed with cancer last year. A fourth firefighter has been more recently diagnosed, but he declined to speak publicly.

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.

“Many of these cancers are associated with PFAS,” said McMillan. “It is not a coincidence that this is the case again and again. We have to put the gear on for 24 to 48 hours and are not allowed to have that choice. I am forced to put on a known carcinogen every time I go to work.”

Courtney Carignan, an exposure scientist and environmental epidemiologist at Michigan State University who has studied PFAS for 10 years, said in an email that it’s likely that “PFASs are contributing to higher rates of cancer in the fire service since we know that some are carcinogens and because firefighters often have higher exposures to PFASs compared to the general population.”

The presence of PFAS was found in firefighter gear after Diane Cotter, wife of Worcester, Mass., firefighter Paul Cotter, began looking for answers to



Joe Bogdanski checks some firefighting gear at Engine 4 in Waterbury. Bogdanski is back at work after being treated for an aggressive thyroid cancer. He is now in remission.

why her husband was sick with cancer, McMillan said.

“This topic was not being discussed until Diane brought it to our attention,” McMillan said. “She served as a lightning rod.”

Cotter sent the gear to Graham Peaslee, professor of physics at the University of Notre Dame, to test it.

Test results showed the highest levels of PFAS they have ever seen in a textile, Peaslee told The Sunday Republican. Despite repeated attempts, Cotter could not be reached for comment.

Peaslee has studied the effects of PFAS on the body.

“It doesn’t just cause hypertension, thyroid disease, and cancer,” he said of the research. “It also possibly affects the immune system and lasts in our

blood for years.”

Jamie DeWitt, a professor in environmental and molecular toxicology at Oregon State University who has been studying PFAS since 2005, 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, which could create a situation where damaged cells in the thyroid become cancerous.

PFAS have been detected in many different substances, including drinking water sources, produce, meat, other foods, solar panels, electronics, textiles, cookware, personal care products, and cosmetics. “They have been found in the blood of most people and the umbilical