

TAKING ACTION AGAINST Occupational Cancer

Fighting fires and responding to emergencies pose obvious risks, but we now know from the hundreds of fire fighters battling cancer each year that there are other, less obvious risks associated with firefighting.

If you're fighting fires for a living, you are at increased risk of one day having to fight cancer as well. The complex mix of chemicals in smoke exposes fire fighters to carcinogens associated with a variety of cancers.

Cancer continues to be the leading cause of death among fire fighters. In September 2018, 164 of the 249 names added to the Fallen Fire Fighter Memorial Wall of Honor are of members who succumbed to occupational cancer. In fact, 65 percent of the members added to the Wall of Honor between 2002 and 2018 died from occupational cancer.

Numerous studies show that cancer rates are significantly higher for fire fighters than the general population. Furthermore, studies confirm a link between firefighting and an increased risk for specific types of cancer.

General President Harold Schaitberger says, "The connection between firefighting and cancer is real, and there is scientific data to support it. However, we must continue the research to understand how these toxic exposures increase our risk of developing cancer."

In 2015, researchers at the National Institute for Occupational Safety and Health (NIOSH) released the results of a multi-year study on the link between fire fighters and cancer. The study included 30,000 fire fighters from three fire departments: Chicago, Philadelphia and San Francisco. Fire fighters in this study had a greater number of cancer diagnoses and cancer-related deaths than the general population. Additionally, there were more cases of certain cancers among younger fire fighters. This study provided the evidence that fire fighters are at increased risk of certain types of cancer as a result of occupational exposure.

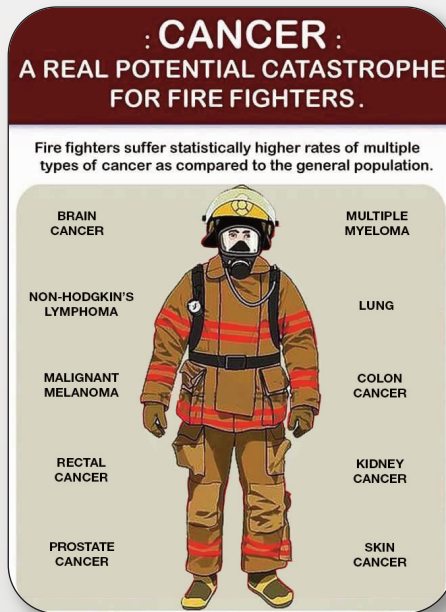
In part two of the study, NIOSH looked at the exposure-response relationship between firefighting and cancer and found that the mortality risk from cancer rose with increased fire exposures.

Despite these striking findings, the NIOSH

study contained several limitations. There were very few women or minorities included in the study population. Additionally, there was a lack of information on actual fire fighter exposures.

Because of this, the IAFF led efforts to enact into law the Firefighter Cancer Registry Act. This important legislation creates a national registry for fire fighters to further gather data and information to determine cancer incidence and trends among fire fighters.

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Passed in July 2018, Congress appropriated \$1 million to initiate work on the registry. The IAFF has been actively involved with NIOSH in creating the registry design.

The cancer registry will help fill data gaps and begin to define the full scope of occupational cancer among fire fighters. The Act also directs the Centers for Disease Control (CDC) to develop and maintain a

voluntary registry of fire fighters to include employment records, number and types of fires, years of service, age when a fire fighter is diagnosed with cancer, circumstances and types of cancer, among other data points. The information gathered over time will be available for analysis by fire service agencies and researchers.

Meanwhile, the IAFF has continued to lead the fire service in promoting research on toxic exposures and prevention. As part of

our ongoing efforts, the IAFF is conducting research on exposures, which includes per- and polyfluoroalkyl substances (PFAS) in firefighting foam and turnout gear, with preliminary results expected later this year. Each of these ongoing studies is expected to deepen the understanding of these exposures, the impact they have on the body and the effectiveness of preventive measures.

Recognizing the importance of reducing cancer incidence and cancer deaths among members, delegates at the 2018 IAFF Convention in Seattle, Washington, passed a resolution to increase per capita to generate funds for cancer research. This follows an important resolution at the 2016 Convention to convene a first-ever IAFF Cancer Summit to review the latest research available. This Cancer Summit took place in October 2016 for IAFF leadership. In February 2018, an IAFF Cancer Summit was conducted for membership.

Stopping Cancer Before It Starts

Cancer doesn't have to be a death sentence. Fire fighters may not be able to avoid smoke, but they can limit exposure to carcinogens by wearing required personal protective equipment, including breathing apparatus, on the fire ground and during overhaul operations. Additionally, carcinogens can



attach to ultrafine particles that can't be seen but are still in the fire scene environment and settle on turnout gear.

Besides inhalation, exposure to carcinogens occurs through absorption of the skin. And, the risks aren't limited to the fire ground — many firehouses don't properly control diesel exhaust, increasing the risk of exposure to cancer-causing agents.

The IAFF is broadening efforts to educate members on prevention by limiting exposures to toxic materials. These efforts include the Cancer Awareness and Prevention online training course in conjunction with the Fire Fighter Cancer Support Network, designed to help members avoid and decrease individual risk factors for cancer.

This training, available on the IAFF website, outlines the most prevalent types of cancers affecting fire fighters, identifies top carcinogens in the firefighting environment, reviews the many ways fire fighters are exposed to carcinogens and provides best practices for changing behaviors to reduce cancer risk.

The IAFF advocates starting cancer education as soon as a fire fighter's career begins. General President Schaitberger recalls the early days of

his firefighting career when dirty gear was a sign of toughness and grit. "We must change these attitudes because we know that cancer is killing our members," he says.

And fire departments need to be more proactive by addressing the dangers of fire ground exposures and cancer, discussing prevention and advocating for testing and screening for early detection.

"Now more than ever, we need to raise awareness in order to safeguard our members from exposures to carcinogens, and we need to implement changes to our standard operating procedures that will keep our members healthy and extend their lives," Schaitberger says.

Healthy Habits for Reducing Cancer Risk

A workshop at the 2019 IAFF Affiliate Leadership Training Summit (ALTS) in Los Angeles, California, led by doctors Kerry Kuehl and Stefanos Kales, discussed the health risks associated with poor diet, exercise and sleep patterns.

These experts explained how healthy habits can reduce the risk of a variety of health issues, including cancer.

Proper nutrition — diet is a key component of a cancer prevention plan. A Mediterranean diet, which includes lean proteins, nutrient dense carbohydrates and healthy fats, is a good option for fire fighters. U.S. News and World Report reports that this diet is the best overall for healthy eating and to combat

To limit exposure to carcinogens, the IAFF recommends the following preventative practices:

At the Fire Station

- Use diesel exhaust containment systems and properly seal doors leading to living and office space.
- Keep turnout gear away from living spaces and offices.
- Use nitrile gloves while cleaning dirty tools and equipment.
- Wash hands after handling any gear or equipment.

On the Fire Ground

- Wear SCBAs during the initial attack AND through the overhaul to reduce exposures to carcinogens during the entire response, including exterior operations.
- Rinse or brush off fire debris from PPE and place it in a large contractor's plastic bag before returning to the apparatus and the fire station.
- Use wet naps or soap and water to clean hands, neck, throat and face at the end of every fire operation.

Post Fire

- Wash all gear used at the scene.
- Shower and change into clean work clothes.
- Never take dirty work clothes home.

Behavioral Changes

- Eliminate the mindset that dirty gear makes you look tough and experienced.
- Don't use tobacco products.
- Keep your weight in check.
- Exercise regularly.
- Drink alcohol in moderation.
- Use sunscreen.
- Have an annual medical exam that includes cancer screening.

obesity, heart disease and diabetes. And medical studies have found that this type of diet reduces cancer risk by 20-30 percent.

Preventing obesity also reduces cancer risk. People with high BMIs often have chronic low-level inflammation (such as gastroesophageal reflux disease), which can lead to esophageal cancer; excessive fat tissue (which produces excess amounts of estrogen), which increases the risk of breast, ovarian and other cancers; and increased levels of insulin that can lead to colon, kidney, prostate and endometrial cancers.

Sleep is also important for increased immune function, which is the body's way of fighting off diseases, including cancer. Caffeine, alcohol and energy drinks can disrupt sleep quality. ■

IAFF Wary of Unsupported Prevention Techniques

As part of the efforts to reduce cancer and cancer deaths, the IAFF cautions against preventative and screening methods unsupported by research. This includes the use of saunas for detoxification as the science remains too limited to know if increases in excretion of toxins occur in any meaningful way. Further, there is concern that sauna use could increase absorption of contaminants on the skin and exacerbate fire fighters' cardiovascular concerns.

In the late 1980s, researchers began to study the ability of drug-sniffing dogs to detect the presence of cancer in humans. In a very controlled setting, results suggested this was possible; however, there is not enough research to know if this technique is credible for cancer screening. Using specially trained dogs for cancer screening is not approved by the U.S. Food and Drug Administration (FDA), and the IAFF does not support it.

Additionally, the IAFF has also found very little data to support the use of blood tests for screening asymptomatic fire fighters. Some blood tests purport to identify a specific type of protein in the blood that exists only on the surface of a malignant cancer cell in patients with cancer or, more importantly, for screening in people who go on to develop cancer.

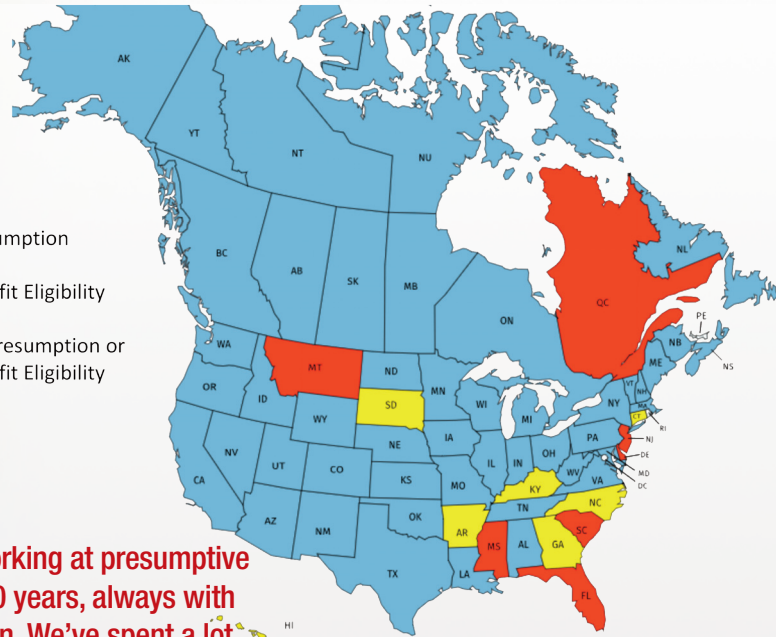
Similarly, the IAFF warns against use of ultrasound imaging to view internal organs and detect asymptomatic disease as part of testing during routine physical examinations and evaluations because it can lead to false positives and possibly unnecessary further procedures, such as biopsies or surgery.

The IAFF supports fire fighter cancer screenings based on recommendations by established organizations, such as the American Cancer Society and the U.S. Preventive Services Task Force, with modifications to address the increased risk of certain cancers in fire fighters. The recommendation is to follow the IAFF/IAFC Wellness-Fitness Initiative (WFI) and the NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments on annual medical exams that include the appropriate cancer screenings. ■

Presumptive Laws — The Right Thing to Do

With the increasing widespread acceptance of the link between cancer and firefighting, the IAFF and our affiliates have been successful in passing presumptive laws to provide benefits to fire fighters battling cancer. Forty-four states and all but one Canadian province now provide presumptive coverage or benefits eligibility for fire fighters with certain cancers.

- Presumption
- Benefit Eligibility
- No Presumption or Benefit Eligibility



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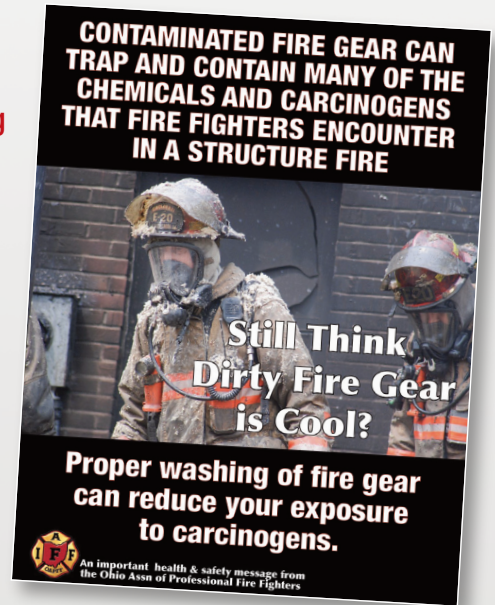
— Joel Fassbinder, President, Montana State Council of Professional Fire Fighters



After two decades of hard work, the Ohio Association of Professional Fire Fighters successfully lobbied for the enactment of a fire fighter cancer presumption law. SB 27 is named the Michael Louis Palumbo Act in honor of a Beachwood Local 2388 member diagnosed with brain cancer.

Presumptive laws vary greatly, though generally they stipulate that fire fighters diagnosed with cancer while on the job or within a certain time after retirement are presumed to have become ill due to their exposure to carcinogens on the job. The laws are designed to make it easier for fire fighters battling cancer to receive workers' compensation, disability benefits or even death benefits for their families.

In April 2017, the state of Ohio enacted presumptive legislation following an intense lobbying effort by the Ohio Association of



Professional Fire Fighters (OAPFF). Named for Beachwood, OH Local 2388 Fire Captain Michael Palumbo Jr., the law allows workers' compensation coverage for cancers that could be caused by IARC (International Agency for Research on Cancer) Group 1 and Group 2A carcinogens. The exposure to those chemicals is presumed to have resulted from the fire fighters' job duties.

Several local, state and provincial affiliates are currently renewing efforts to create or bolster presumptive laws that identify cancer as an occupational disease under workers' compensation, including Florida, Mississippi, Tennessee, Virginia and Montana.

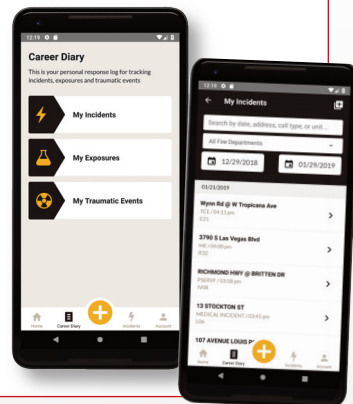
The Professional Fire Fighters Association of Mississippi (PFFAM) is working on presumptive legislation that would provide benefits to fire fighters who contract specific



General President Harold Schaitberger joined hundreds of members from across Virginia in a march to the State Capitol in Richmond to call for legislation protecting fire fighters with cancer.

Exposure Records Provide Needed Evidence to Support Cancer Claims

As more states and provinces enact presumptive legislation providing workers' compensation coverage for fire fighters who contract occupational cancer, the National Fire Operations Reporting System (NFORS) Personal Exposure Record provides a detailed history of work and exposures in an encrypted and secure online environment. Also available as an app. For more information, visit www.nfors.org.



cancers. The bill also includes language for heart disease and communicable diseases.

"This is our first attempt to get presumptive legislation in Mississippi and I'd say we have a better than even chance of success, though the Mississippi Municipal League is going to really put up a fight," says President of the Professional Fire Fighters Association of Mississippi Johnny Bass. "Thanks to the work of the IAFF, lawmakers here are realizing we are one of the only remaining states without cancer presumption and we need to do something. Now it's just a matter of finding a way to pay for it."

Tennessee's bill has moved out of the state House and Senate committees and has been filed for introduction for full House and Senate hearings.

"This is exactly the same bill we tried to pass last year. If we can get this past the Senate Finance Committee, we will prevail," says Tennessee Professional Fire Fighters Association (TPFFA) President Eddie Mitchell. "We conducted a financial study over the summer to refute some of the claims our opponents have been making about the costs of presumption. It's really is all about the money at this point."

IAFF members in Montana also are seeing progress towards a cancer presumption. The bill has moved through committee and will be heard by the Senate.

"We've been working at presumptive legislation for 20 years, always with strong opposition," says President of the Montana State Council of Professional Fire Fighters (MSCPFF) Joel Fassbinder. "We've spent a lot of energy creating a bipartisan coalition, getting involved in political action early to elect allies in the state legislature. Now, we are seeing unprecedented support."

Meanwhile, Local 2928 in Palm Beach County, Florida, approved a new collective bargaining agreement with the County in February that includes cancer presumption language. At the state level, the Florida

"If this legislation passes, it would without a doubt save lives."

— Jim Tolley, President, Florida Professional Firefighters

Professional Firefighters (FPF) has been diligently lobbying the Florida legislature over the course of many legislative sessions to pass a law protecting fire fighters diagnosed with cancer. This session, legislation requiring employers to provide health insurance policies covering cancer treatment without a deductible passed the Senate Governmental Oversight and Accountability Committee February 19. The bill has now moved to the Senate Community Affairs Committee for consideration.

"If this legislation passes, it would without question save lives," says FPF President Jim Tolley. "It covers several cancers common among fire fighters and is believed to be due to on-the-job exposure. Our members diagnosed with these cancers would be able get the treatment they need to get better."

In December, Saskatchewan announced it is adding prostate, skin, breast, multiple myeloma, cervical and ovarian cancer coverage for fire fighters, bringing the total number of cancers presumed occupational in the province to 16.

Saskatchewan Professional Fire Fighters and Paramedic Association (SPFFPA) President Lloyd Zwack says he is grateful to the Saskatchewan government. "This advance ensures more fire fighters will be compensated for cancers occurring as a direct result of their occupation. It was the right thing for the government to do."

Meanwhile, the Virginia Professional Fire Fighters (VPFF) engaged in an aggressive campaign to ensure cancer coverage for first responders.

"We are calling a MAYDAY on occupational cancer in Virginia," says VPFF President Robert Bragg. "We know the science supports



our position, and our goal is to get the legislature to commit to doing the right thing."

In January, General President Harold Schaitberger joined hundreds of Virginia members and their families in a march to the state capitol in Richmond to call on lawmakers to expand and strengthen cancer presumption in Virginia.

However, on January 31, there was no vote on the bill by the House Appropriations Compensation and Retirement Subcommittee. The bill would have added additional types of cancer to the workers' compensation law. Counterpart legislation in the state Senate had passed by a 39-1 vote January 25. This delay means it's likely the legislation will not be voted on this session.

The IAFF continues to work with our state and provincial affiliates to develop messaging, provide technical expertise and give advice on how best to work with lawmakers to pass presumptive legislation.

"While the research must continue into how fire fighters are getting cancer, we must educate our members and their employers about prevention, and convince all elected officials that cancer is an occupational disease," says General President Schaitberger. ■