

# Cancer is Killing Firefighters... It's Time to Act!

By Scott Hechler, CFO, Director of Public Safety, Fire Chief, Hernando County Fire & Emergency Services

The National Fire Protection Association website provides the following fact:

"Firefighting is a dangerous profession, and a growing body of research and data shows the contributions that job-related exposures have in chronic illnesses, such as cancer and heart disease. The National Institute for Occupational Safety and Health (NIOSH) recently undertook two large studies focused on firefighter cancer and concluded that firefighters face a 9 percent increase in cancer diagnoses, and a 14 percent increase in cancer-related deaths, compared to the general population in the U.S."

According to the Boston Fire Historical Society official website, the first publicly funded fire department was established in Boston in 1678. The first career department was formed in Cincinnati in 1853. There is an often-used adage that the fire service having 100, 150, 200, or more accurately 343 years of tradition unimpeded by progress. In some ways that is accurate; however, in many others we have always sought continuous improvements in many aspects of our profession. Firefighter safety has come light-years in my career and the future looks bright if fire departments stay laser-focused on the health and welfare of their people.

The reality is that we have known for years there is a direct correlation between firefighting and cancer. Our profession has evolved to become more safety conscious in so many ways due to that fact. My own career is reflective of that.

When I was an eighteen-year-old

rookie in 1982, Nomex hoods were optional as were bunker pants. I was told by senior firefighters that "real" firefighters wore the three-quarter rubber boots and needed to use their bare ears to judge the heat during firefighting. Near miss firefighting incidents changed that culture and our policies.

My first engine, an R series Mack, had no jumpseats thus we rode the tailboard. When stopped, we would breathe exhaust from our engine as well as the surrounding vehicles. We rarely cleaned our turnout gear or fire helmet because we were "fire dogs". Smoke-stained bunker gear with melted reflective tape was a sign of toughness.

Smoking and chewing tobacco were part of the culture for many firefighters early in my career. Our stations had ashtrays and firefighters carried coke cans or water bottles to spit in. We did not dwell on the dangers of breathing products of incomplete combustion during overhaul. For a day or so after a structure fire, moist dark black soot would blow out your nose. If that happened to the sinus, it was naïve to not think about the damage of soot being absorbed into our lungs.

At some point, many states passed laws prohibiting firefighters from consuming any tobacco products on-duty or off. Unfortunately, they did not or possibly could not legally make the restriction retroactive, so it only applied to new firefighters hired after the law was enacted.

For years, when bunker pants became mandatory, we would place those contaminated pieces of PPE right next to our bed at night to speed turnout time. The smell of the gear permeated the gang-style open bunkrooms of that era, and it was absorbed by the carpet as well as our beds, linen, and pillows.

Over the decades since, firefighter health and safety knowledge has grown exponentially in all aspects of our workplace. Education, scientific research, and most importantly firefighter attitudes towards personal safety has improved dramatically. However, the recognition of the cancer risks associated with our job has been inconsistent between each state and fire department.

My previous home state of Virginia developed presumptive laws to recognize that there was an occupational correlation to firefighters and certain illness, injuries, and disease starting in the 1970s. It started with the heart and respiratory system and expanded in the 1990s to include

certain cancers. As such, the Virginia Workers Compensation Act was applicable when deciding the benefits that they were entitled to.

Due to the hard work of the Florida Fire Chiefs' Association and Florida Professional Firefighters Association as well as, so many supportive state elected officials; the Florida Legislature passed a firefighter cancer bill that was signed into law by Governor.

Unlike heart related deaths, there had been no national data collection to have a true grasp as to this issue nationally. It was only in July of 2018 that "the Firefighter Cancer Registry Act (H.R. 931) was signed by the president and became public law. This bill requires the Centers for Disease Control and Prevention (CDC) to develop and maintain a voluntary registry of firefighters to collect history and occupational information that can be linked to existing data in state cancer registries" (NFPA.org).

While firefighter health and safety has long been important to me, I had an awakening while listening to several firefighter cancer presentations at the FIERO Fire Station Design Symposium in 2017. I swore to myself to make it my mission to do better in this area. We cannot undue the mistakes of the past; however, we can make thoughtful changes for

current and future firefighters.

On return, I met with my senior staff to discuss the need for a shared vision to demonstrate an even greater commitment to firefighter safety. We adjusted our strategic plan to include the Firefighter Cancer Risk Reduction priority initiative and announced it to our department. We realigned our budget priorities accordingly with the unanimous support of the Board of County Commissioners as well as, our County Administrator. We dove into this project by researching every resource we could find with the IAFC, IAFF, USFA, NFPA, and the Everyone Goes Home Firefighter Life Safety Initiatives. We also benchmarked this initiative against other fire departments.

The following is a partial list of actions that we have taken thus far in partnership with our IAFF local leadership:

- Implemented the Clean Cab concept for all new fire apparatus and updated our SOGs accordingly
- Retrofitted our existing engines and ladder truck with Ward's No-Smoke 2 diesel exhaust filtration devices and added them as part of specifications for new apparatus
- Enhanced our NFPA compliant physicals to include cancer markers testing
- Developed a new fire station design

template to include hot, warm, and cold zones

- Adding redundant overhead exhaust filtration devices in our new stations
  - Provided two cancer risk reduction type firefighting hoods for every firefighter
  - Working to provide extractors and dryers in all fourteen stations
  - Reducing the use of firefighting PPE by providing heavy rescue helmets, gloves, and safety glasses for every firefighter
  - Purchased a second set of bunker gear for every firefighter
  - Retrofitted all ambulances with exterior compartment Aeroclave connections for safer decontaminations and upgraded the ventilation and lighting systems to do so as well
  - Increased investments in physical fitness equipment
  - Seeking grant support to remodel antiquated fire stations
  - Starting next fiscal year, adding climate-controlled sheds to store station bunker gear
- Our phenomenal team working with our IAFF local leaders have achieved so much in a short period of time. The future is bright for Hernando County Fire and Emergency Services. When it comes to firefighter cancer, avoidance and delays are not an option. We owe it to the firefighters of the past, present, and future.



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