Battling an unseen danger: cancer amongst fire fighters

Those who put others at the centre of their work, must not forget themselves. Especially in an emergency when the pressure is up and every second counts the sole focus of fire fighters is on saving other´s lives. But all too often it is overlooked that they themselves could become victims: by getting exposed to carcinogens.

In the heat of the battle you can easily forget about your personal protection procedures

The risk of contracting cancer is much higher than in other jobs, as recent studies impressively show. So the question arises: what needs to change and how?

Why is cancer a greater risk amongst fire fighters?

The call comes in. The team dons their turnout gear. The truck is ready to go as the sirens are turned on. They answer every call, no matter the danger, to save those in need. To us they are: strong, courageous and selfless. But they are neither invulnerable nor immune as we think they are. They are ordinary men and women, brothers and sisters, fathers and mothers with families who share their sense of honour and passion for what they do.

Higher risk of contracting cancer

And like all of us, they can be victims of unforeseen health dangers. But unlike us they face a higher health risk from their profession. According to the US Centre for Disease Control and Prevention (CDC), a fire fighter has a 29 percent higher risk of contracting various types of cancer than the rest of the US population. They have a 1,39 chance higher of developing skin cancer and are 1,31 times more likely to be diagnosed with brain cancer in America alone. Our modern life consists of buildings, interior, furniture etc, which contain synthetic/engineered materials. If these objects burn they expose 'cocktail' of cancer-causing and toxic substances.

"Pinpointing the cause of cancer is extremely difficult because fire fighters are not exposed to just one agent. They are exposed to multiple cancer causing agents. Because of the multiple exposures and the multiple routes of exposure; they inhale carcinogens and carcinogens are absorbed through the skin, it is also highly unlikely for fire fighters to get only one type of cancer"

~ Grace LeMasters, PhD, a professor of epidemiology at the University of Cincinnati

Ways to improve the situation

The question arises: what needs to change and how? Identifying their key needs and raising awareness about this critical issue will play a key role in promoting the health of our fire fighters today because their well-being and health has been in the background too long.

Fire Services across various continents have begun to realise the scope and magnitude of carcinogenic exposure to fire fighters.

A white paper printed by the Fire fighter Cancer Support Network (FCSN) outlines extensive studies conducted which provide much needed knowledge and insight as to today's new challenges faced by fire fighters.

Is a 'real' fire fighter, a 'dirty' fire fighter?

Perhaps one oversight lies with our personal perception of what a fire fighters should ›look like‹. The popular image of fire fighters facing blazing flames and returning sooty and often with doffed breathing protection equipment, has become an iconic visual representation of a 'strong' person battling the forces of raging fires and clouds of dark suffocating smoke.

However, if we look closely at this image, we can see that they are completely exposed to toxic byproducts, which are released with fury in the event of a fi re. This leads us to question the myth: Is a real fire fighter, a dirty fire fighter?

Misconception must be dispelled

We hold them in such high esteem, and rightly so. Today however, we need to dispel this misconception: that in order to do their job to the fullest, they need to emerge from the fire, coated with soot and personal protective equipment removed.

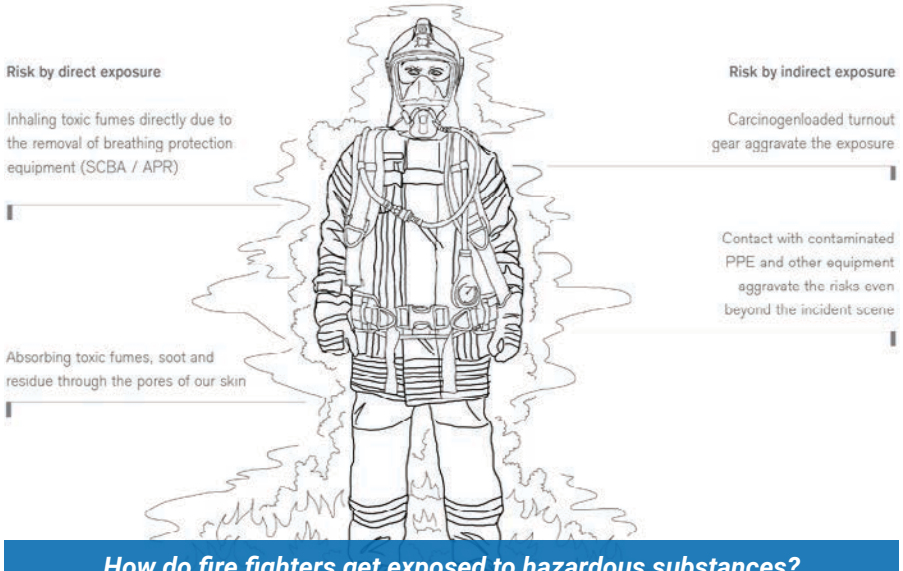
There are numerous ways they are exposed to carcinogens: for example, inhaling toxic fumes directly into their lungs due to the removal of SCBAs. Furthermore, the soot and residue from fires can also be absorbed through their skin. Carcinogenloaded turnout gear and helmets aggravate the exposure.

Analysing the potential risks

An analytical approach at the incident level of fire suppression and post-incident processes are vital to identify the risks of toxic, carcinogenic substances. Best practice models, such as the well-known Skellfteå Model, published by the Swedish Civil Contingencies Agency, serves as an example as to how Fire Services across the world are pooling their expertise in promoting and providing sustainable solutions to fight cancer amongst their fire fighters. Analysing fire suppression incidents as well as best practice models break down stereotypes and expose the dangers and risks associated with the health and safety of fire fighting.

Improving routines and workflows

The gist is to improve routines and workflows in the working environment: mitigate exposures, expedite implementation, and adjust standard operating procedures (SOPs). Consequently, encouraging awareness and to actualise changes which would lead to commitment.



How do fire fighters get exposed to hazardous substances?

Dräger website