



You and Your PPE; Part-1

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What is PPE and how does it work? Personal Protective Ensemble are the garments (coat, pants, hood, gloves, boots and helmet) worn by firefighters to keep them alive during firefighting activities. Structural firefighting is the most dangerous of these activities due to the large range of fire ground hazards and constantly changing conditions.

Potential Hazards Encountered During Structural Firefighting:

1. Thermal Hazards such as ambient, conductive, convective and radiant heat.
2. Chemical and biological hazards such as toxins, carcinogens, germs and bodily fluids.
3. Physical Hazards such as projectiles, abrasive or rough surfaces and falling debris.
4. Electrical hazards such as energized electrical wiring and equipment.
5. Hazards caused by the wearing or use of the equipment itself.
 - Heat stress and fatigue
 - Loss of mobility
 - Soiled or contaminated gear



Older Inferior PPE

Potential Hazard of Modern PPE: Knowing Your Limitations

Modern PPE is designed to protect firefighters in the worst case scenario (flashover) Each firefighter is encapsulated in a cocoon of safety which numbs them from the conditions that they are operating in. Although unintentional modern PPE has created a dangerous situation where firefighters find themselves deep in a fire occupancy remote from an attack line or their exit point. This means that when conditions change and its time to make a quick retreat they will have a greater distance to travel in order to escape the deteriorating conditions.

For new less experienced firefighters the problem is they have no reference point of heat and smoke conditions and their warning signs. Combine that with their desire to prove themselves to their brother firefighters and you have a recipe for disaster. Experienced firefighters find themselves victim of this same problem but it is usually caused by over confidence. They have worn inferior PPE that had a large amount of exposed skin which allowed them to feel subtle heat changes. Unfortunately they are still waiting to feel the heat that warned them in the past that it was time to go so they keep pushing deeper into the abyss.



Modern PPE

How to Reduce Your Risk:

1. Know how your PPE protects you and how to properly don and wear it
2. Take the time to properly don all of your PPE when engaging in firefighting activities
3. Posses a good attitude toward your safety and your PPE
4. Know your PPE limitations as well as your own
5. Know how to properly care for and store your PPE

In the coming weeks we will explore the components and parts of our PPE in order to become intimately familiar with its design, purpose, function and limitations.