

The Silent and Invisible Threat

by

Leah Stoner, Loss Control Training Specialist
Emergency Services Insurance Program

The new recruit swings his axe towards the drywall, dust and debris falling to the floor as he creates a hole for his escape. He breaks more pieces away and then turns, performing a backstroke swimming motion to wriggle his way through the hole. The recruit emerges face up on the other side of the wall, covered in a fine layer of white dust, but otherwise unharmed. This was a training exercise, one that is designed to save his life if he is caught without any other alternatives for escape.

The danger that may ultimately take this new recruit's life is far more insidious, stealthier than the one he was just training to prevent. It can strike at any time; while out on a call, driving to or from an alarm, washing the trucks, or simply while eating breakfast cereal. This threat that has moved from the shadows to stare him in the eye is cardiovascular disease.

We all have heard the warnings that have been issued by both cardiologists and cartoon characters recommending that we get more exercise, reduce the amount of fat we eat, and get regular checkups to ensure cardiovascular health, but cardiovascular disease remains the number one killer of both men and women in the United States ("Heart Disease..." 2009). From 2001-2005, 897 firefighters died in the line of duty (excluding those who were killed on 9/11). Of these 897, 427 firefighters died from "stress/overexertion," as reported by the U.S. Fire Administration. 92% of these deaths were the result of heart attacks. These numbers show that deaths from stress/overexertion made up almost half of all firefighter fatalities during this period. Most states have requirements for the amount of time firefighters must spend training on various subjects from structural firefighting techniques to appropriate personal protective equipment, but firefighter health is often only mentioned in passing.

When cardiovascular events are responsible for almost half of all firefighter fatalities, and are the leading cause of death for both men and women in the U.S. regardless of occupation, how can we afford to ignore this threat? Fire departments and individual firefighters need to make cardiovascular health a priority. Cardiovascular disease is not usually something that happens overnight, it is frequently the result of years of indifference about heart health. We can (or think we can) eat whatever we want when we are young, but in reality we are damaging the system that delivers oxygen and nutrients throughout our body. Atherosclerosis, the buildup of fats and other substances deposited in the artery, literally means "gruel hardening." Atherosclerosis is a primary contributing factor to the development of coronary artery disease; the narrowing of arteries. This process decreases blood flow through arteries, reducing the amount of oxygen cells receive, and can lead to dangerous blockages resulting in heart attack or stroke.

Firefighting poses an interesting problem when it comes to being fit. Firefighters frequently have to expend a great amount of energy when fighting a structure fire, extricating victims from a wrecked car,

or even just while training. When we are not performing these duties; however, we can become very sedentary. The very nature of firefighting can make working out difficult; I have had my fair share of workouts interrupted by tones dropping. Despite the inconvenience, the effort is worth it. If you do not put in the effort to work out and train your body to be ready for anything that might be thrown your way while on a call, then it will not be ready to do what you need it to do. It is a relatively simple series of equations. Hard work + fit firefighter = success. Hard work + unfit firefighter = disaster. The strain of a fire may be all it takes for that plaque in your arteries to rupture and send you to the hospital.

To begin to move towards reducing cardiovascular-related firefighter fatalities we need to begin a "sweaty firefighter" campaign in firehouses across the nation. Everyone sweats when wearing turnout gear, but your goal should be to "get sweaty" more frequently, and not just because of the climate you live in. As we move into October and the winter months, make an effort to get sweaty three to five times a week. By improving your fitness level you will be taking a step towards decreasing your risk of cardiovascular disease so you can focus on what you do best; your job.

"Atherosclerosis." 2009. *American Heart Association*. <<http://www.americanheart.org/presenter.jhtml?identifier=4440>>.

"Coronary Artery Disease." 2008. *MayoClinic.com*. <<http://www.mayoclinic.com/health/coronary-artery-disease/DS00064>>.

"Fire Fighter Fatality Investigation Reports." 2009. *CDC NIOSH*. <http://www2a.cdc.gov/NIOSH-fire-fighter-face/state.asp?state=ALL&Incident_Year=ALL&Medical_Related=0001&Trauma_Related=ALL&Submit=Submit>.

"Heart Disease is the Number One Cause of Death." 2009. *Centers for Disease Control and Prevention*. <<http://www.cdc.gov/features/heartmonth/>>.

"National Fallen Firefighters Memorial Database." 2009. *U.S. Fire Administration*. <<http://www.usfa.dhs.gov/applications/ffmem/>>.