



## **Heart Disease in the Fire Service**

Since 1900, cardiovascular disease (CVD) has been the number one killer in the United States. Nearly 2,600 Americans die of CVD each day, an average of one death every 33 seconds. Cardiovascular disease claims more lives each year than the next five leading causes of death combined. Among firefighters, cardiovascular disease is also the leading cause of death.

In 1999, the fire service saw 112 line of duty deaths of which nearly fifty percent were related to heart attacks. Two thirds of the firefighters over age 50 who died in 2003 died of heart attacks. CVD is still the leading cause of firefighter deaths today and now claims its victims younger and younger every year. The youngest heart attack death of a recent firefighter was 35 years old. The health and well-being of firefighters directly affects public safety. Therefore, their high risk profile for cardiovascular disease has become a national concern.

### **Preventative Measures**

West Metro Fire recognizes the value in preventative measures to determine causation and vulnerability of the disease long before the individual feels chest pain or shortness of breath. Dietary software is available to employees on all department computers for members interested in learning more about the foods they consume. The Wellness staff also provides educational materials such as ten day dietary guides to reflect firefighter schedules as well as complete manuals on proper nutrient based diets that mitigate controllable risk factors. The Wellness Division provides dietary consults and diet analysis for all its employees at no cost.

### **Connection to Obesity**

A new study published by the Journal of the American Dietetic Association found that many firefighters are overweight and/or obese and don't realize it. The study published in one U.S. City of the 96 full-time firefighters found that 84% were overweight and 13% were obese. Obesity costs U.S. companies \$13 billion annually. An obese worker costs 36% more than a healthy weight worker. West Metro Fire has decreased the department obesity rate by 15% through the dissemination of a comprehensive preventative approach to diet and exercise. Research has shown that health benefits can be realized by exercising enough to burn as few as 150 calories a day, or 1000 calories a week. This amount of exercise can decrease the risk of coronary heart disease by 50%, and the risk of hypertension and colon cancer by 30%. Furthermore, habitual exercise can positively affect lipid metabolism, lipid profiles, lower plasma triglycerides, and increase HDL.

### **Training and Education**

Scientific evidence suggests an inverse relationship between the amount of physical activity and mortality risks. Aerobic and anaerobic exercise is an essential task a firefighter must keep up with in order to effectively carry out his/her job description over the course of a 25 year career. West Metro Fire was awarded a federal grant that provided cardiovascular exercise equipment and weight training equipment to each fire station. The equipment has been essential in providing a safe and effective platform to train and educate employees on firefighter fitness. Firefighters who are not in shape put their lives and civilian lives in danger every time they respond.