# Health and Injury Risks

#### CORONARY ARTERY DISEASE

# PHOENIX FIRE DEPARTMENT HEALTH & FITNESS

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# CORONARY ARTERY DISEASE (CAD)

Coronary Artery Disease (CAD) manifests itself as heart attacks, hypertension, and strokes, and is rising at an alarming rate and represents the largest category of on-the-job deaths among firefighters. The American Heart Association has identified a number of risk factors that increase the risk of suffering from CAD. These risk factors are grouped into two categories: intrinsic and extrinsic.

# INTRINSIC FACTORS (UNCONTROLLABLE)

An intrinsic factor is a characteristic that is inherent to the individual and can not be influenced by behavioral changes. In respects to CAD there are three such risk factors; age, gender, and family history.

## Age

The American College of Sports Medicine reports that age becomes a risk factor for males at age forty-one and for women at age fifty-one.

## Gender

Historical evidence suggests that being of the male gender is a risk factor. However, recent studies hint that this gender discrimination is rapidly diminishing and may be completely eliminated in the future.

### Family History

A family history of CAD is considered significant if it involves an immediate family member (Parents or siblings) and the incident occurred before age fifty-five.

# **EXTRINSIC FACTORS (CONTROLLABLE)**

Unlike intrinsic factors, extrinsic factors are those items that can be controlled and include; smoking, personality type, hypertension, obesity, inactivity and diet.

#### **Smoking**

Arguably, the decision to not smoke, or stop smoking is probably the single most important step to reducing the risk for CAD, and improve your overall health. It has been shown that the average age of heart attack victims who smoke is ten years less than that of non-smokers.

The decision to quit smoking should be an easy one when the facts are considered. The problem lies with in following through on that decision.

\*Note: WE ARE A SMOKE FREE DEPARTMENT.

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## **Personality**

Research has shown that individuals who demonstrate aggressive and competitive behaviors have an increased risk for CAD. Unfortunately, these same characteristics can also be used to describe a great many firefighters. It is not to imply that these characteristics are undesirable or should be avoided. Obviously, these characteristics are essential for emergency scene operations. The problem arises when this behavior directs and controls the individual's entire approach to life.

# **Hypertension**

Chronic high blood pressure is defined as a systolic reading of  $\geq$ 160 and a diastolic reading of  $\geq$ 90.

## **Inactivity**

Lack of exercise, particularly aerobic exercise, has become increasingly important as a contributing factor for CAD. While, the American College of Sports Medicine has established minimum guidelines for frequency, duration, and intensity of exercise it has also recognized that any physical activity is better than none.

#### Diet

A diet that contains excessive amounts of cholesterol and saturated fats contributes greatly to the risk of heart disease.

### Obesity

Body fat is an essential component of the human body. It becomes a risk factor when it decreases physical activity levels.

# **Diabetes**

There is a debate as to whether diabetes is an intrinsic or extrinsic factor. Because of its association with diet, inactivity, and obesity it will be considered a controllable factor.

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