# **IDENTIFYING THE RISK FACTORS in Coronary artery disease**

RISK FACTORS FOR CORONARY HEART DISEASE INCLUDE:

## A. <u>UNCONTROLLABLE FACTORS</u>:

## 1. <u>AGE</u>:

Simply getting older increases your risk of damaged and narrowed arteries and weakened or thickened heart muscle, which contribute to heart disease. The older a person gets, the greater the effect of time and exposure to fatty acids in the artery, as well as ageing of the vessel itself.

2. <u>GENDER</u>:

Men are generally at greater risk of heart disease. It is the main cause of death in men over 35.

In women the incidence of heart disease increases after their menopause.

3. <u>RACE</u>:

Coronary diseases occur two times higher in Caucasians than blacks.

4. <u>HEREDITY</u>:

A family history of heart disease increases your risk of coronary artery disease, especially if a parent develops it at an early age. A person with a familial history of hyperlipidemia has a high incidence of coronary artery disease.

#### B. <u>CONTROLLABLE FACTORS</u>:

#### 1. SMOKING

Statistics show that persons who smoke have an 80% increased rate of atherosclerotic formation, because carbon monoxide can damage the lining of the arteries. Heart attacks are more common in smokers than in non-smokers.

The effect of smoking on the heart:

Nicotine constricts the blood vessels. Smoking causes an increase in carbon monoxide levels which decreases oxygen delivery to the heart muscle, this leads to damage of the muscle.

 Carbon monoxide also suppresses heart function so that less blood (and oxygen) is delivered to the body.  Nicotine causes release of certain substances in the blood (e.g. adrenaline) that lead to an increase in blood pressure and heart rate. It also causes an increase in fatty acids, which accelerates the process of heart disease.

It is, therefore, in your own interest to stop smoking. There are a number of supportive agents on the market to help you with nicotine dependency and the subsequent withdrawal symptoms. For additional information please refer to <a href="http://www.heartfoundation.co.za/smoking">http://www.heartfoundation.co.za/smoking</a>.

## 2. <u>HIGH BLOOD PRESSURE</u>:

Hypertension also increases the risk of coronary artery disease. Continual exposure of the vessel wall to high pressure cause changes in the inner layer of the wall, resulting in hardening and thickening of the arteries, making it more susceptible to irregularities such as cholesterol adheres to it, causing an occlusion of the artery. High blood pressure also causes an increase in heart work, so that more oxygen is needed.

Usually a high blood pressure can easily be controlled by medication. It is, therefore, imperative that you take your medication as prescribed, don't stop taking it before consulting your doctor. Regular taking of your blood pressure and follow-up visits are essential.

### 3. OBESITY:

Overweight places an additional burden on your heart, and is usually associated with increased blood pressure and blood cholesterol levels.

It is important that you lose weight through a balanced diet. Instant diets and medication such as amphetamines seldom have lasting effects and are detrimental to your health. Consult your dietician regarding a balanced diet, which will bring about weight loss safely and permanently.

#### 4. EMOTIONAL STRESS:

Although a certain amount of stress is needed for optimal functioning, too much stress is damaging to your heart. Increased stress leads to increased smoking, poor eating habits and increase in blood pressure, which all lead to coronary heart disease.

If your methods of coping with stress aren't contributing to your greater emotional and physical health, it's time to find healthier ones.

It is an important factor in both men and women.

#### 5. ALCOHOL ABUSE:

Although moderate intake of alcohol can do much to decrease stress and cholesterol levels, alcohol abuse will increase the workload of your heart and will accelerate atherosclerosis. Red wine and whisky is the recommended choice of drink (one tot for woman, and two tots for men per day).

### 6. ORAL CONTRACEPTIVES:

The use of oral contraceptives by women affects the blood pressure in susceptible persons. It is also associated with increased blood clotting. Please discuss with medical practitioner.

## 7. <u>TYPE OF PERSONALITY</u>:

Hasty lifestyle and impatient type of person, increases stress levels and is associated with increased risk of heart disease e.g. Type A Personalities, Perfectionist and time urgency syndrome!

## 8. <u>DIET</u>:

Diets high in cholesterol and saturated fat leads to increased cholesterol levels and subsequent increased risk for coronary heart disease. Although the body produces its own cholesterol, a lot is taken in by your diet; increased intake of cholesterol enriched food can increase fat levels to the extent that coronary heart disease occurs.

Cholesterol is deposited on the inner layer of the blood vessel wall and causes gradual occlusion of the artery, so that blood flow and oxygen delivery to the heart is impaired.

### 9. DIABETES:

Diabetes frequently leads to high blood cholesterol levels and kidney damage, as a result of high blood pressure. Obesity further increases the risk of coronary heart disease. It also increases blood platelet adherence to the vessel wall, which further increases atherosclerosis.

A continuous high blood sugar level causes deterioration of the vessel walls so that they become thicker and more prone to occlusion.

It is, therefore, important that blood glucose levels are controlled.

#### 10. PHYSICAL INACTIVITY:

Lack of exercise is also associated with many forms of heart disease and some of its other risk factors, as well. Exercise helps you achieve and maintain a healthy weight and control diabetes, elevated cholesterol and high blood pressure; all risk factors for heart disease. Exercise also helps with stress relief and mood modification.