



## Angina

The heart is a muscle that pumps blood around the body. This muscle requires a constant supply of blood to supply energy and oxygen that is delivered by the right and left coronary arteries.

Angina is a pain, tight feeling, heaviness, pressure or burning usually felt across the chest. It may radiate to the arms, back, neck or jaw. It commonly occurs with exercise or emotional upset, resolving with rest, but can occur at other times.

### **What causes angina?**

The main cause of angina is narrowing of the coronary arteries reducing blood supply and oxygen to the heart muscle. This lack of oxygen causes pain known as angina. As mentioned it often occurs when the heart needs more oxygen, when the body is under stress. The coronary artery narrowing is usually due to deposits of fats and cholesterol in the arteries. Smoking, elevated cholesterol, high blood pressure, diabetes and a family history of premature heart disease (1<sup>st</sup> degree relative) all lead to a higher incidence of coronary artery disease.

### **What are the risks of angina?**

The main risk of angina is a heart attack. A heart attack occurs when one of the coronary arteries becomes completely blocked. Over a period of minutes to hours the area of heart muscle supplied by this artery dies. This leads to pain and reduced function of the heart and dangerous rhythm disturbances.

**If you suspect that you are having a heart attack you must seek immediate medical attention**

**\*\*\*ring 000 for an ambulance\*\*\***

### **Diagnosis of angina**

Angina is diagnosed through assessment of your history of chest discomfort, examination of your chest and with the help of some diagnostic tests. These tests include a resting electrocardiogram (ECG), an exercise stress test where the ECG is monitored while the body is under some stress, or a stress echocardiogram where both the ECG is recorded and the heart visualised with ultrasonography immediately after completion of exercise.

Once angina has been diagnosed your cardiologist may decide to take an X-ray of your coronary arteries (angiogram) to see if they are narrowed.

### **How do you treat angina?**

#### **Acute attack:**

- Cease the activity that brought on the angina
- Take your tablets as directed – you may have a quick acting tablet or spray to use during an attack
- If you do not have relief with rest and medication within 10 to 15 minutes, then contact your doctor or present to the nearest emergency service without delay

#### **Long term:**

- Stop smoking
- Eat a health low-fat diet to control your cholesterol, weight and blood pressure
- Make sure that your blood pressure and diabetes are well controlled
- Take medications as directed

### **Medications and angina**

There are a number of medications commonly used in the management of angina

- Dilation of arteries and veins – nitroglycerine tablets or sprays
- Reduction of workload of the heart with reduction of amount of oxygen required – beta blockers
- Widening of coronary arteries to help improve oxygen supply to the heart – calcium channel blockers
- Thinning of the blood with prevention of blockage by clotting – low dose aspirin, clopidogrel

If medications do not control symptoms or tests suggest the blockages may be more serious, angiography is likely to be recommended with a view to performing angioplasty/stenting or coronary artery bypass surgery.