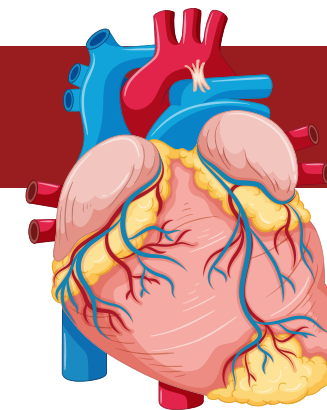
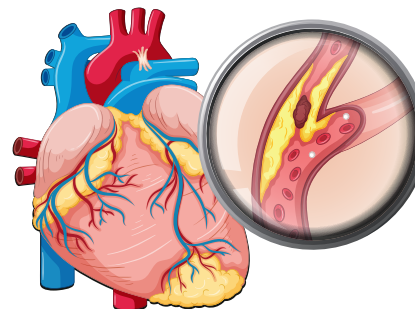




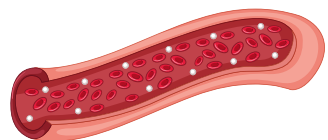
Coronary Artery Disease



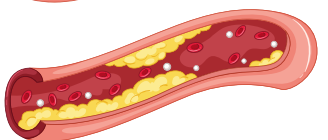
What is it?



The **coronary arteries** are the vessels that supply the heart with oxygen, blood and nutrients. When these arteries become damaged/diseased due to build-up of fatty deposits (plaque), it causes **Coronary Artery Disease**. These deposits can slowly narrow the arteries, and the heart will receive less blood which can cause chest pains (angina) and shortness of breath. If there is a complete blockage - either by built up plaque or plaque that breaks off - it can cause a heart attack.



Normal artery



Artery narrowed by atherosclerosis

Signs and Symptoms



CHEST PAIN (ANGINA)

Pressure/tightness in the chest that may feel like someone is standing on your chest. It is usually triggered by emotional stress or physical activity. The pain can also be experienced as a fleeting or sharp pain in the abdomen, back or arm.



SHORTNESS OF BREATH

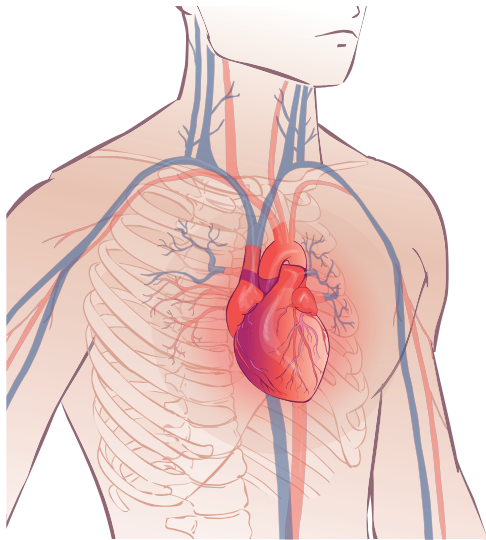
You may develop shortness of breath or extreme fatigue (tiredness) with exertion.

Causes and Risk Factors

| | |
|----------------------------|---|
| AGE | As you get older, the risk of damaged or narrowed arteries increases. |
| GENDER | Men are generally a higher risk but the risk for women is increased after menopause. |
| SMOKING | Nicotine constricts the blood vessels and carbon monoxide can damage the inner lining of the vessels. |
| FAMILY HISTORY | A family history of heart disease is associated with a higher risk of coronary artery disease especially if a parent developed it at an early stage before 55-60. |
| HYPERLIPIDAEMIA | High levels of cholesterol and/or triglycerides in the blood can increase the formation of plaque and atherosclerosis. |
| HIGH BLOOD PRESSURE | Uncontrolled high blood pressure may result in the hardening and thickening of the coronary arteries, narrowing the channel through which blood flows. |
| OBESITY | Excess weight worsens other risk factors and can lead to diabetes and high blood pressure. |
| POOR DIET | Not containing a balanced diet that includes fruit, vegetables and fish. |
| PHYSICAL INACTIVITY | Lack of exercise |
| HIGH STRESS LEVELS | Constant stressful environment |
| DIABETES | It is associated with an increased risk of Coronary Artery Disease. |



Complications



HEART ATTACK

If the coronary artery becomes completely blocked, it can cause a heart attack.

Symptoms:

- CRUSHING PRESSURE IN THE CHEST
- PAIN IN THE SHOULDER OR ARM
- SHORTNESS OF BREATH
- SWEATING

The pain with a heart attack is the same as described above for angina. Where the angina pain subsides, a heart attacks pain remains persistent.

Management

The main goals of managing Coronary Artery Disease include:

- Managing any conditions that cause or contribute to the disease.
- Controlling signs and symptoms, so that you can live as normally as possible.
- Stopping the disease from getting worse.
- Reducing complications and the risk of Sudden Cardiac Arrest (SCA).

LIFESTYLE CHANGES



TREATMENT

Treatment is aimed at treating the underlying cause, and managing the symptoms.

Blocked coronary arteries may in some cases require balloon dilation or stenting of the effected vessel to improve the flow. These procedures can both be performed during an angiogram.

Stenting involves the placement of a small tube over the narrowed vessel to widen the vessel and therefore increase the flow.

Severe cases may require open heart surgery (Coronary Artery Bypass surgery harvest healthy blood vessels from elsewhere in the body e.g. the leg, and graft the vessels to one or more of the coronary arteries to restore the blood supply to the heart muscle.

Diagnosis

Clinical symptoms above with the following:



Blood tests



Echocardiograph (ECG)

A device is moved across your chest, that submits sound waves that determine how well your heart beats.



Coronary angiogram

An x-ray image of the heart blood vessels. After they are filled with a contrast material used to identify the exact location and severity of the disease.



Chest x-ray