What is cardiovascular disease?

Cardiovascular disease includes all diseases of the heart and circulation.
This includes coronary heart disease (angina and heart attack), heart failure, congenital heart disease and stroke.
Of these diseases, coronary heart disease is the biggest killer in the world. Both coronary heart disease and stroke are usually caused by the gradual build-up of fatty material within the walls of the arteries.

Cardiovascular disease is also known as 'heart and circulatory disease'.

Coronary heart disease can cause the symptoms of angina and can lead to a heart attack. It begins when the coronary arteries (the arteries that supply oxygen-rich blood to the heart muscle) become narrowed by a gradual build-up of fatty material within their walls.
This condition is called atherosclerosis and the fatty material is called atheroma.

How atheroma builds up
When fatty material builds up in the arteries, the arteries become narrow and it is more difficult for the blood to flow through them.

Angina
In time, your arteries may become so narrow that not enough blood can flow through to your heart muscle. This can cause angina.
Angina is a symptom of coronary heart disease. It is the chest pain or discomfort you feel when your arteries cannot deliver enough blood to your heart muscle.

Heart attack

A heart attack happens when a coronary artery becomes blocked by a blood clot.
If the atheroma in your arteries becomes unstable, a piece of it may break off and lead to a blood clot forming.
If the blood clot blocks your coronary artery and cuts off the supply of oxygen-rich blood to your heart muscle, your heart muscle may become permanently damaged. This is known as a heart attack (or myocardial infarction).

During a heart attack, you could develop a life-threatening heart rhythm which may lead to a cardiac arrest. This is when someone loses consciousness and stops breathing, and their heart stops pumping.

A heart attack is a medical emergency.

The symptoms of a heart attack

◆ Pain or discomfort in the chest that doesn't go away.

◆ The pain may spread to the left or right arm …   or may spread to the neck and jaw.

◆ You may feel sick or short of breath.

What increases my risk of cardiovascular disease?

A risk factor is something that increases your likelihood of getting a disease. There are several risk factors for cardiovascular disease. The main ones are shown below.

- **Smoking.**
- **High blood pressure.**
- **High blood cholesterol.**
- **Physical inactivity.**
- **Being overweight or obese.**
- **Having diabetes.**
- Having a **family history** of coronary heart disease or stroke at a young age (under 65 for women or under 55 for men).
- **Gender:** Men are more likely to develop coronary heart disease at an earlier age than women.
- **Age:** Your risk increases as you get older.
- **Ethnic background:** People from South Asian or African Caribbean backgrounds are at a higher risk of getting some of the risk factors mentioned above.

The following factors may also increase your risk of developing cardiovascular disease.
- **Poverty**. People on lower incomes are more likely to have the risk factors for cardiovascular disease, and socio-economic reasons may make it more difficult for them to make healthy choices.
- **How you deal with stress**.
- **High alcohol intake**.

Smoking and Heart Disease
Smoking is one of the major causes of cardiovascular disease.
Smoking damages the lining of the arteries, and this can lead to the build-up of atheroma (fatty material) in your arteries.
The chemicals in cigarettes can have various effects on the heart.
Carbon monoxide reduces the amount of oxygen that the blood can carry to the heart and around the body.
Nicotine stimulates the body to produce adrenaline, which makes the heart beat faster and raises blood pressure, and causes the heart to work harder.
Smoking may also makes your blood more likely to clot.
All of these things increase the risk of developing atheroma (fatty material within the walls of the arteries), which can lead to angina, heart attack or stroke.