

For a healthy heart

- ♥ If you smoke, stop smoking.
- ♥ Eat lots of fruit and vegetables and less fat.
- ♥ Be more active every day.  
Be a healthy weight.
- ♥ Relax – take time out for yourself.

# All about your heart... and stroke

Information on angina,  
heart attack and stroke  
and how to prevent them.

Local contact:

For more information contact:

**Your local health board**  
or

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## Introduction

Most of us probably do not realise how important the heart is until something happens either to ourselves or to our loved ones. We often do not look after our hearts well enough and take for granted the work our hearts do every second to keep us going. This leaflet will explain:

- ♥ why your heart is so essential;
- ♥ how you can take care of your heart;
- ♥ what problems and diseases can arise; and
- ♥ how these can be treated.

## What does the heart do ?

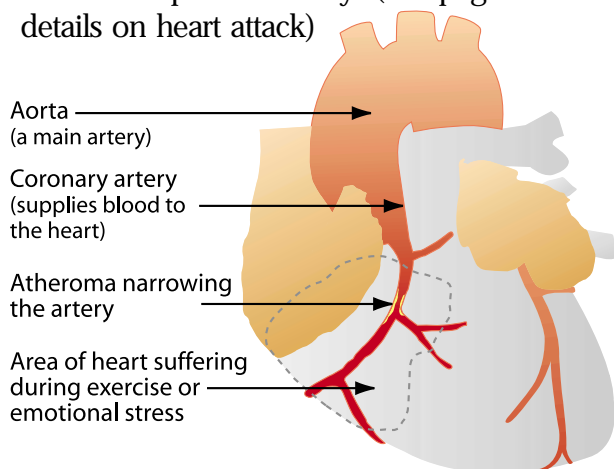
The heart is a muscular bag which squeezes to pump blood through the blood vessels around our bodies. It beats nearly 100,000 times a day, bringing food and oxygen in the blood to all parts of the body and bringing back waste from all these organs and cells. Like any engine or pump, it needs fuel and care to keep it working. Not surprisingly, if we neglect it, problems develop.

The blood vessels – arteries and veins - and the heart are together called the cardiovascular system. Diseases that affect the cardiovascular system include angina, heart attacks and strokes.

## What is angina ?

For many people the first sign of heart disease is angina. Angina happens when the heart muscle does not get enough blood. This happens when the coronary arteries are narrowed because of a build-up of a fatty substance called atheroma. These narrowed arteries are able to bring enough blood to the heart muscle when you are resting but not enough during exercise or stress. When there is not enough blood for the heart, it complains and angina develops. Angina is a feeling of pain, discomfort, pressure, heaviness or tightness in your chest, neck or arms.

The discomfort or pain may last for 60 seconds or longer. (Short, jabbing pains lasting a few seconds are not likely to be angina.) Angina symptoms which last for 10 minutes or longer, even if you are resting, may mean you are having unstable angina or a heart attack. In both cases, you should get medical help immediately. (See page 6 for details on heart attack)



## Treating angina

If you have been told that you have angina, there are things you can do yourself to prevent it. However, you may also need medication.

What you can do.

You should:

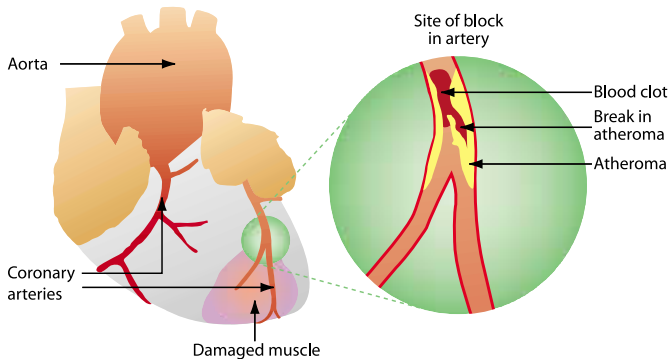
- ♥ wait an hour and a half after meals before you take any exercise;
- ♥ avoid carrying heavy loads;
- ♥ avoid stressful situations, if possible;
- ♥ cover your face with a scarf in cold weather and not walk up hills;
- ♥ bring your weight down to a healthy level; and
- ♥ if you smoke, stop smoking.

There are a number of medicines used to treat angina.

In some cases certain procedures may be considered. These include angioplasty, stenting and coronary artery bypass surgery. We discuss these later on pages 10 and 11.

## What is a heart attack ?

A heart attack happens when the blood supply to the heart muscle is blocked off causing damage to the heart muscle. This is the result of a build-up of a fatty substance called atheroma on the inner wall of the coronary artery. If this atheroma breaks or tears, a clot forms in the artery which blocks the blood supply to the heart muscle.



## Symptoms of a heart attack

If you are having a heart attack, you might:

- feel an uncomfortable pressure, squeezing or pain in the centre of your chest, arm or jaw that lasts more than a few minutes;
- have pain which spreads to your shoulders neck or arms;
- feel light-headed and that you are going to faint. Some people start to sweat, feel sick or feel that it is hard to breathe.

## What should I do?

You may not have all of these symptoms. If you only have some of them, don't wait, get help fast by phoning 112 for an ambulance and calling your doctor. Meanwhile you should sit or lie down.

## Other forms of cardiovascular disease

The arteries that supply blood to other parts of your body, besides your heart and brain, are usually called the peripheral arteries. Diseases of the peripheral arteries occur mainly in the large arteries that supply blood to your legs.

When these arteries become narrowed due to a build-up of atheroma, the blood supply to the legs is reduced and this is called peripheral arterial disease. This disease is mainly noticeable when you exercise. You may experience tightness in your calf muscles or thighs when you walk a certain distance. This tightness improves after resting, although it usually comes back if you repeat the exercise.

If you have diabetes, you may not feel the discomfort but have a heavy feeling or tiredness in your legs after exercise. If you have peripheral arterial disease as well as diabetes, you may develop leg ulcers.

Men with diabetes and peripheral arterial disease can have problems with impotence, which they can improve by taking medication such as viagra.

Even though you get pains in your calf muscles, you should walk as much as you are able. This will help improve the blood supply to your legs. Some drugs make this condition worse and you should check with your doctor about this. If you are very limited because of the pains in the back of your calves, your doctor will refer you to a vascular surgeon who specialises in diseases of the arteries.

What happens if I have a heart attack ?

If you have a heart attack, a doctor will focus on dealing with the immediate problems that arise after the heart attack. It is essential that you are cared for in the coronary care unit of a hospital. The first treatment many patients receive are clot-breaking drugs. Some patients may have to have a procedure (such as angioplasty or a stent placed in the blocked artery - see the next page for a description of these procedures) to improve the blood supply to the heart. Sometimes as a result of a heart attack, certain complications may arise like heart failure, a disturbance in the heart rhythm, or you may be in shock. The coronary care unit will monitor the situation and give you the care you need.

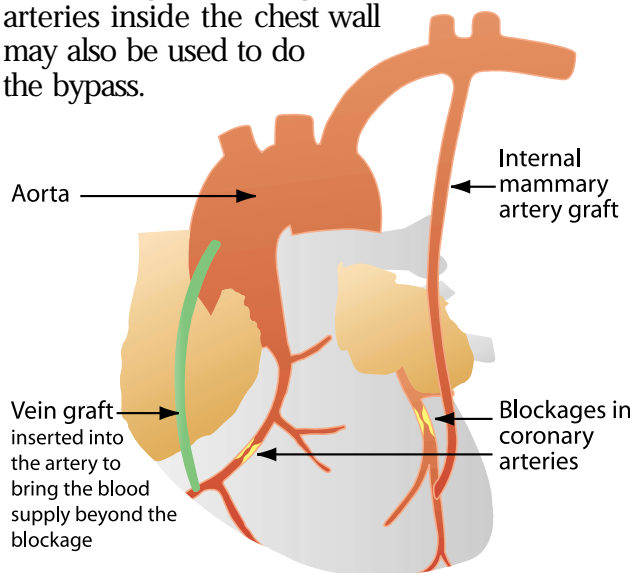
How can I recover after a heart attack?

If you have had a heart attack, you will be encouraged to enrol in a cardiac rehabilitation programme. Cardiac rehabilitation gives you education and support about changes you may need to make in your lifestyle, for example, how to eat more healthily and take more exercise. You will get advice and information about your medication, as well as support about coping with the trauma of what you have gone through. Cardiac rehabilitation will help you gain better health and to enjoy a good quality of life. Very importantly, going through the six- to eight-week programme of cardiac rehabilitation will help reduce your chances of further heart attacks, angina or stroke.



## What is coronary artery bypass surgery?

In this operation, blood vessels from other parts of the body are transferred to carry blood to areas of heart muscle where there is a poor blood supply due to the coronary arteries narrowing. One end of this vein is attached to the aorta, (the main blood vessel leaving the heart), and the other end to a healthy part of the coronary artery beyond the blockage or damaged area. Sometimes arteries inside the chest wall may also be used to do the bypass.



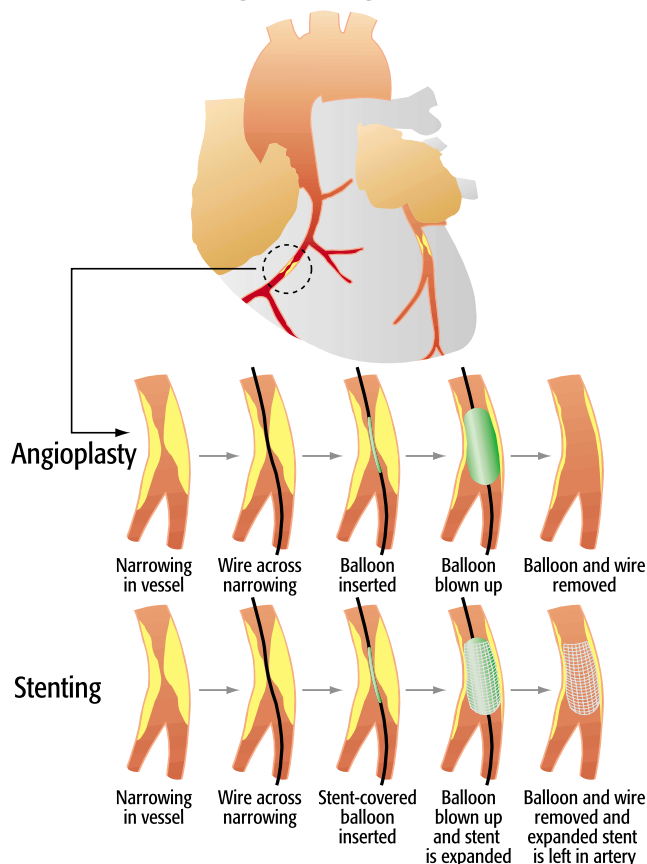
## What is coronary angioplasty?

Angioplasty is a special treatment to unblock narrowed or blocked coronary arteries. A balloon is placed into the narrowed blood vessel. The balloon is then blown up, pushing out the narrowed part of the artery. This leaves the channel open for blood to flow freely to the heart muscle. In this way it is possible to relieve angina.

Angioplasty gives good relief from pain and discomfort. Some patients may need another angioplasty after some years.

## What is coronary stenting?

A stent is a metal mesh that surrounds the balloon used in angioplasty. When the balloon is inflated, the stent expands. The expanded stent stays in the artery after the balloon is taken out. It keeps the artery open and helps create a clear way for the blood to flow. Stenting is very similar to angioplasty and in the longer term gives better results.



## What can I do to prevent heart disease?

Many people know that certain risk factors influence and increase their chances of getting heart disease.

There are some risk factors which we can change or influence, such as smoking, having a high cholesterol level or high blood pressure, being overweight and not being physically active.

There are other risk factors which we cannot change. Heart disease is inherited so if there is a history of heart disease in your family, you are more likely to get it. As we get older, we are more at risk of heart disease.

Fortunately, at any age and even if you have a history of heart disease in your family, you can reduce your risk of developing the disease. Making some changes now can make a difference for a longer and healthier life.

### Stop smoking

Smoking is very harmful to your blood vessels and heart. It makes the blood more likely to clot. Smoking also tightens up the arteries and causes atheroma to form in the arteries.

Stopping smoking greatly reduces the risk of heart attacks and



strokes. If you would like help to stop smoking, talk your doctor, your pharmacist, your local health centre or phone the national Quitline on 1850 201 301. (See our leaflet on smoking.)

### Have a healthy cholesterol

Cholesterol is a fatty substance that our body needs to produce hormones and for the walls of each cell. However, too much cholesterol in the blood leads to some cholesterol attaching to the artery walls as atheroma. Some atheroma may eventually break and block the bloodflow, causing a heart attack or stroke.

If you have your cholesterol checked and find that it is at a high level, you need to treat it to prevent any problems.

The main cause of high blood cholesterol is eating too many foods high in fat, particularly saturated fat. A first step to reduce high blood cholesterol is to eat more fruit and vegetables and less fatty foods. You should include lots of wholegrain high-fibre foods such as cereals, breads and potatoes. Another important step is to be more active every day. As well as healthy eating, you may also have to take medication which helps lower cholesterol. (See our cholesterol leaflet.)



## Manage your blood pressure

When the pressure inside your blood vessels stays at a high level for a long period of time, it can lead to damage. This then encourages the build-up of atheroma in the arteries. Damage from high blood pressure can lead to a blood vessel that supplies the brain bursting and this can cause a stroke.

There are several important things we can do to reduce blood pressure or to keep blood pressure at a healthy level.

- Be a healthy weight.
- Take lots of regular physical activity.
- If you drink alcohol, reduce the amount you drink.
- Eat less salt and more fruit and vegetables.

You may need to take tablets, which are very good at keeping blood pressure healthy. The most important thing is to follow your doctor's instructions. (See our blood pressure leaflet).



## Be active

Being active every day can help lower your chances of getting heart disease. Regular physical activity – about 30 minutes a day, even if spread over the day in two or three sessions – can help you feel good, manage your weight, lower your blood pressure and it keeps your heart muscle strong. (See our leaflet on physical activity).

## Be a healthy weight

Being overweight means your heart has to work harder to pump blood around the body. This extra pressure can cause wear and tear on your heart and blood vessel system. Many people who are overweight for a long time may develop high blood pressure or diabetes - both risk factors for heart disease.

In the last ten years, there has been an increase in the number of people who are overweight or obese. Obesity damages our hearts and our joints and is mainly the result of too many calories in our diet and too little activity. In a small number of cases obesity can be passed on in families. Even losing small amounts of weight in those who are overweight or obese helps to improve health. (See our leaflet on losing weight).

## Diabetes

Glucose (blood sugar) is essential for your body to work normally. However, glucose levels in the blood which are too high can damage arteries and nerves. Insulin is a hormone that controls blood glucose levels. In some people, their bodies do not produce enough insulin and so they get high blood glucose levels. This is called Type-1 diabetes. In other people, the body does not respond as well to insulin and so glucose levels build up. This is called



Type-2 diabetes. Type-1 is more common in children and Type-2 in adults. You are more likely to get Type-2 diabetes if it already runs in the family.

(For more information contact the Diabetes Federation of Ireland at locall 1850 909 909 or website: [www.diabetes.ie](http://www.diabetes.ie) and ask for the leaflet 'Living with Diabetes'.)

### Manage your stress

The relationship between stress and heart disease is complicated and not fully understood. When you are stressed, your body produces hormones which are useful in small amounts. However, if the stress is continuous, these hormones can damage your arteries and may affect your blood pressure.

It is important to find ways of coping with stress that do not increase your risk of heart disease. Find ways of coping that help you relax such as taking exercise or listening to music. Learn a relaxation technique, or get plenty of sleep. Eat a varied and balanced diet. (See our leaflet on managing stress).



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### What is a stroke ?

A stroke is a sudden loss of use or sensation in your limbs or face, or a loss of vision as a result of damage to nerve cells in a part of your brain because the blood supply to the brain has been cut off. This can happen due to a clot in the blood vessels in the brain or as a result of a bleed (haemorrhage) from a burst blood vessel into the brain.

### Effects of a stroke

As a result of the stroke, the nerve cells in the brain can't function and the part of the body controlled by those cells also shuts down. The effects of a stroke are worse in the beginning. However, there is usually some amount of recovery in the first six weeks after a stroke.

### What is a TIA (transient ischaemic attack)?

In some people, the clot in the brain dissolves quickly and the muscle weakness, loss of sensation or loss of vision is only for a very short time. This means the effects of the attack disappear in less than one hour. Although these people are lucky that they did not get permanent damage, a TIA is a warning sign of future strokes and will need to be investigated further.

Can strokes be treated or prevented ?

You can reduce your chances of getting a stroke by making certain changes in your lifestyle, especially not smoking and controlling high blood pressure. If you have high cholesterol, lowering your cholesterol levels may also reduce your risk. Your doctor may tell you to change your lifestyle as well as prescribing medication to reduce your blood pressure. Aspirin or warfarin are often used to prevent clotting and reduce the risk of stroke.

