Physical Activity and your Heart

Information for people with heart disease or high blood pressure, and for their families and friends
This booklet is not a substitute for the advice your doctor or cardiologist may give you based on his or her knowledge of your condition.

If you have coronary heart disease or high blood pressure, or if you have just had heart surgery, your hospital doctor, cardiac nurse or GP may already have advised you to do more physical activity.

This booklet explains:

- why physical activity is important for your heart, even if you already have heart disease
- how physical activity affects your heart
- how much activity you should aim to do
- which sorts of activities are best for your heart, and
- how to safely build up your level of activity.

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The good news

Physical activity is very good news for your heart.
- Physical activity halves the risk of developing coronary heart disease.
- Among people who have heart attacks, those who have been physically active are twice as likely to survive the heart attack compared to people who have not been active.
- Physical activity as part of a rehabilitation programme reduces the risk of dying after a heart attack by 20%.
- Physical activity reduces your risk of having a stroke.
- It helps lower your blood pressure.
- It reduces the risk of diabetes.
- It helps you to lose weight if you are overweight or obese.

Physical activity also gives you:
- more energy
- relief from stress, and
- a lower risk of osteoporosis (thinning of the bones).

The greatest increase in health benefit comes to inactive people who start to take regular moderate exercise, such as brisk walking, cycling, dancing or swimming. Also, there is no threshold of activity that you have to reach before you can benefit - a little activity is better than none!

You don’t have to go to a gym, or play sports, or use special equipment. You can become more active just by working more activity into your everyday life.

Many people who do regular activity say that it makes them feel better, and that they notice an improvement in their mood and self-confidence. It can also be a lot of fun.
What causes coronary heart disease?

Coronary heart disease is caused when the arteries supplying blood to the heart (the coronary arteries) 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’. The disease can suddenly become worse if a blood clot forms over the atheroma (a thrombosis). This is what causes a heart attack.

The atheroma develops when cholesterol is taken up by cells in the coronary artery walls where the narrowing process begins. This cholesterol is formed from the fats in the foods you eat. Two types of cholesterol are involved:

- LDL cholesterol, which forms the atheroma, and
- HDL cholesterol which removes cholesterol from the circulation, and appears to protect against coronary heart disease.

The goal is to have an overall low level of total cholesterol, with a low level of LDL cholesterol and a higher level of the protective HDL cholesterol.

‘Risk factors’ for coronary heart disease

There are several known ‘risk factors’ for heart disease which you can do something about. (A ‘risk factor’ is something which increases people’s risk of getting the disease.) The major risk factors are:

- smoking
- high blood pressure
- high blood cholesterol, and
- physical inactivity.

Other lifestyle factors may also play a part, including drinking too much alcohol, excessive salt intake and obesity.

Physical inactivity is probably the most common risk factor for heart disease in the UK. Surveys have shown that 7 out of 10 adults in the UK do not take enough regular physical activity to achieve health benefits to protect their heart. And yet, even though physical inactivity is so common, 8 out of every 10 adults think that they are fit.
Why is physical activity so important for your heart?

Exactly how and why physical activity plays such an important part in preventing coronary heart disease is still the subject of research. However, it appears to act in the following ways.

Physical activity helps improve your blood cholesterol levels
Physical activity seems to raise HDL cholesterol (the ‘protective’ cholesterol), but does not affect LDL cholesterol levels. However, in order to maintain the benefit in HDL cholesterol, you have to make sure that you do regular physical activity.

It helps prevent blood clotting
A heart attack usually occurs when blood clots form over atheroma in the coronary arteries. Regular exercise helps to prevent blood clotting.

It helps to lower high blood pressure, and prevent high blood pressure from developing
High blood pressure is one of the four major risk factors for coronary heart disease (see page 7). In 9 out of 10 people with high blood pressure there is no single underlying cause. However, unhealthy lifestyles play an important part. In particular, being overweight or obese, eating too much salt, drinking too much alcohol, and physical inactivity can all raise blood pressure.

Regular, moderate rhythmic exercise, such as walking or swimming, helps to reduce blood pressure in people with high blood pressure. This sort of exercise may also prevent high blood pressure from developing.

Physical activity helps you to maintain or reach a healthy weight
Regular physical activity plays an important part in maintaining or reaching a healthy weight. The amount of activity you do is as important as the food you eat, because being a healthy weight means balancing the energy taken into the body (the calories in your food and drink) with the energy you use up (as activity). Also, people who are obese are more likely to have high blood pressure and raised blood cholesterol levels.