

# Physical activity and your heart



BEATING HEART DISEASE TOGETHER



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### British Heart Foundation website

You may find other useful information on our website at:

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## About this booklet

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This booklet is for people who have a heart condition, and for those who are at high risk of developing heart disease, for example because they have high blood pressure or a high cholesterol level.

In most cases, physical activity can:

- help improve your heart health if you already have a heart condition
- help your recovery after having heart surgery or a heart attack, and
- help improve many of the 'risk factors' which increase the overall risk of coronary heart disease. (We explain more about risk factors on page 16.)

This booklet explains:

- why physical activity is so important for the heart
- how much activity adults should generally aim to do
- which sorts of activity are best for your heart, and
- how to get started and keep going.

It also gives some information about physical activity for people who already have particular heart conditions, and for those who have recently had treatment for their condition, such as heart surgery.

This booklet does not replace the advice that the health professionals looking after you may give you based on their knowledge of your condition.

## Why is physical activity so important for my heart?

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The heart, like any other muscle, needs physical activity to keep it in good condition.

### The good news

- Physical activity can help to reduce the risk of getting coronary heart disease.
- If you have high blood pressure, a high cholesterol level or diabetes, physical activity can help to improve these conditions and help protect your heart. (See page 17.)
- If you already have coronary heart disease (if you get angina or have had a heart attack), physical activity can help protect the health of your heart and help to reduce your risk of having further heart problems.
- If you have another type of heart condition, regular physical activity can benefit your overall heart health.
- If you have recently had a heart attack or heart surgery, regular physical activity will help with your recovery.

**About one in every five cases of coronary heart disease in developed countries is due to physical inactivity.**<sup>2</sup> Regular, moderate-intensity physical activity can halve the risk of dying from coronary heart disease.<sup>1</sup> However, **about 7 out of every 10 women and 6 in every 10 men in the UK are not active enough to protect themselves against coronary heart disease.**<sup>3</sup>

## Other benefits of physical activity

Regular physical activity can also help to improve health in other ways. The benefits can include:

- improving strength and flexibility
- improving body shape and appearance
- having more energy
- improving mood
- helping to reduce stress and anxiety
- helping you to relax, and
- sleeping better.

It also helps to prevent osteoporosis (thinning of the bones) and some cancers.

As well as protecting your health, many people find that physical activity can help to improve their self-confidence and their social life, as it's a way of meeting other people and having a good time.

## What type of activity will help my heart, and how much should I aim to do?

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The best type of activity to improve the health of your heart is aerobic activity. **Aerobic activity** is any repetitive, rhythmic movement that involves large muscle groups such as the legs, shoulders and arms – such as walking or cycling. When you do an aerobic activity, your body needs more oxygen and so your heart and lungs have to work harder. This makes the heart and circulation more efficient. Aerobic activity also helps to develop your stamina.

Examples of aerobic activity include:

- brisk walking
- cycling
- aerobics
- dancing, and
- climbing the stairs.

### Building activity into your everyday routine

You don't have to join a gym or buy expensive equipment to get the benefits of activity. You can improve your health just by fitting more activity into your



everyday life.

- Walk to the local shops rather than taking the bus or car.
- Park further away from the entrance to the supermarket than you would usually.
- Use the stairs instead of the lift or escalator.
- Get off the bus one stop earlier and walk the rest of the way.
- Walk with your children or grandchildren instead of taking the car or bus.
- Do some gardening.

## Other ways of becoming more active

Some people enjoy going to **classes or groups** to exercise. This can help people feel motivated and can be more fun than exercising on your own. Many local authorities and community groups run activity programmes, fitness classes and walking groups for different ages. To find out what's available in your local area, ask at your local library, leisure centre or community centre.

Some people prefer to **join a gym**. However, if you do want to use a gym, you should check with your doctor that the activities are suitable for you and your condition.

## How much activity should I aim to do?

Adults should aim to do at least 30 minutes of moderate-intensity physical activity a day on at least five days a week.<sup>1</sup>

**Moderate-intensity activity** means working hard enough to make you breathe more heavily than normal and become slightly warmer, but not so hard that you are unable to talk and exercise at the same time, or that you become exhausted.

The 30 minutes doesn't have to be in one session. You can break it down, for example, into two 15-minute sessions or three 10-minute sessions.

Some people with a heart condition may not be able to do as much as 30 minutes a day. However, even a little activity is better than none and can benefit your heart health. If you're not sure about how much activity you should aim to do, check with your doctor.

## Activities for flexibility, mobility and strength

You should also consider doing activities and exercises which will help to improve your **flexibility and mobility**, and your **strength**.

**Flexibility and mobility activities** help you maintain a full range of movement, and can help you stay independent and move more easily.

Examples of these activities include gentle bending, reaching and stretching of muscle groups, dancing, bowls, yoga, pilates or tai chi, or housework such as vacuuming and sweeping.

**Strength activities** maintain muscle and bone strength, and help with good posture and balance. They can also help with your body shape, improving the way you look and feel.

Examples of activities for strength include walking uphill, climbing stairs, digging the garden, lifting and carrying shopping, pilates, yoga and tai chi.

For more information on the different types of activity, see our booklets *Get active!* and *30 mins a day – any way*.

### **If you have high blood pressure or a heart condition**

If you have high blood pressure or a heart condition, it is very important that you check with your doctor or cardiac rehab team before doing the exercises listed on page 11, in case they are not suitable for you. (See page 43 for information about the cardiac rehab team.)

## Getting started ... and keeping going

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Any increase in your physical activity can benefit your health, including your heart health. But **it's important to build up your activity level gradually** – especially if you have not been active for a while.

Here are some tips to help you get started ... and keep going.

- Start slowly and at a level that suits you. Don't be over-ambitious. Just set yourself small, achievable goals to start with.
- Gradually build up how long you exercise for, how often, and how intense the activity is. As you get fitter, you will be able to do more.
- Try and do something every day and build a healthy habit. Plan a time in your day when you will do your activity. Use your diary or a calendar if it helps. Regular, moderate activity is better than occasional bursts of vigorous activity.
- Choose activities you enjoy. We're all more motivated if we're doing something we enjoy.
- Vary your activities. This will help to maintain your interest and avoid boredom. Or maybe try a new activity.

- You may want to involve your partner, family or friends to make it more fun. You can support each other, and you'll have company as well.
- Use reminders. Put a note where you will see it – by the front door, on the fridge or by the kettle – to remind you to do some activity. Or keep your walking shoes near the door.

For more information on ways of building up your activity level, see our booklets *Get active!* and *30 mins a day – any way*.

### **Warming up and cooling down**

Each time you do any physical activity, it's very important that you warm up first and cool down afterwards. Warming up means beginning your activity slowly for the first few minutes and building up gradually, to prepare your heart and body for exercise. When you come to the end of your activity, take time to slow down, and make sure you don't stop suddenly. Cooling down is very important for ending your exercise session safely.

## **Physical activity for older people**

Physical activity is important for heart health in people of all ages, including older people. Physical activity can also

help prevent falls, and can help you stay mobile and independent as you get older. It also helps to slow down the progression of osteoporosis (bone-thinning disease).

For more information on staying active as you get older, see our booklet *30 mins a day any way – The fit for life plan*.

## **If you have difficulty walking or have mobility problems**

If you have difficulty walking, or if you have mobility problems, it is still important to be as active as possible, to help keep you and your heart healthy. Even a small amount of physical activity is good for you and is better than doing none at all.

Ask one of the health professionals looking after you – such as your doctor, cardiac rehab team or exercise specialist – about what types of activity you could do.

Ask at your local library or local authority leisure services department what's available locally that would be suitable for you.

For more information about physical activity for people who are disabled or have mobility problems, contact one of the organisations on page 58.

# How physical activity can help reduce your risk of coronary heart disease

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Physical activity can reduce the risk of developing coronary heart disease. And, if you already have the disease, regular physical activity can help protect the health of your heart. To understand why physical activity is so important for your heart, it helps to know about what causes coronary heart disease, and what increases the risk of getting it.

## What causes coronary heart disease?

Coronary heart disease is caused when the coronary arteries (the arteries that supply blood to the heart muscle) become narrowed by a gradual build-up of fatty material – called **atheroma** – within their walls. This can cause **angina** (chest pain). Or, if a coronary artery becomes completely blocked by a blood clot, it can cause a **heart attack**.

## The 'risk factors' for coronary heart disease

A 'risk factor' is something which increases your risk of getting a disease. There are several known risk factors for coronary heart disease. These are:

- physical inactivity



- smoking
- high blood pressure
- high cholesterol levels
- being overweight
- diabetes, and
- having a family history of coronary heart disease.

Regular physical activity can have a dramatic effect on reducing most of the risk factors above. Below we explain more about the risk factors, and about how physical activity can help with each one.

## High blood pressure

### What is it?

High blood pressure – also called **hypertension** – is when the pressure of blood in the arteries is too high. High blood pressure can increase the risk of having a heart attack or a stroke, and over time it can cause the heart muscle to become less efficient.

### What causes it?

Two common causes of high blood pressure are physical inactivity and being overweight.

### How physical activity can help

Research shows that regular, moderate-intensity physical

activity can prevent high blood pressure from developing.

### **If you already have high blood pressure**

People who already have high blood pressure also benefit from being active. Research shows that regular, moderate-intensity physical activity can reduce or help control high blood pressure.<sup>1</sup> Even if you just increase the amount of walking you do, this can help you to control your blood pressure.<sup>4</sup>

If your blood pressure is not well controlled, or if you have high blood pressure and are planning to start any new activity, it is important to check with your doctor about how much activity you should do, and whether the activities you are planning to do are suitable for you.

Activities such as weightlifting or weight training tend to increase blood pressure so they are often unsuitable for people who have high blood pressure. If you have high blood pressure, you should also avoid physical activity that involves doing lots of overhead arm work.

See also the *Safety tips* on page 49. And for more information about high blood pressure, see our booklet *Blood pressure*.

## High cholesterol levels

### What is cholesterol?

Cholesterol is a fatty substance mainly made in your body. Having too much cholesterol in your blood can increase your risk of developing coronary heart disease. And if you already have a heart condition, a high cholesterol level can increase your risk of having further heart problems.

There are two main types of cholesterol.

- **LDL** is the harmful cholesterol.
- **HDL** is a protective cholesterol, because it helps remove the harmful LDL cholesterol from the bloodstream.

### What causes high cholesterol levels?

A common cause of high cholesterol levels in people in the UK is eating too much fat, especially saturated fat.

Some people have a high cholesterol level because they have an inherited condition called **familial hypercholesterolaemia** – or **FH** for short.

### How physical activity can help

Physical activity can help to raise the level of HDL cholesterol – the ‘protective’ cholesterol.<sup>1</sup> To maintain this

benefit of improving HDL cholesterol, you have to make sure you do regular, moderate-intensity physical activity.

If you have FH, your cholesterol level is unlikely to be improved with physical activity alone. However, being active will still help to keep your heart healthy.

For more information, see our booklet *Reducing your blood cholesterol*.

## Being overweight

Being overweight – and in particular having lots of fat around your middle – can greatly increase your risk of developing coronary heart disease, having a stroke or developing type 2 diabetes.<sup>5</sup> It can also lead to problems with the bones and muscles – such as osteoporosis, osteoarthritis and low back pain – all of which make it more difficult to stay active.<sup>1</sup>

Most people can achieve a healthy weight when there is a balance between the energy (calories) from the food that they take into their body, and the energy they use up in activity.

### If you are overweight

If you are overweight, the best way to lose weight is through a combination of physical activity and eating a healthy diet. Achieving 30 minutes of moderate-intensity physical activity on at least five days a week will help with your weight loss. However, to lose weight or maintain your weight loss, it is likely that you will need to do more than 30 minutes' activity a day.<sup>1</sup> If this seems like a lot, build up the amount you do gradually and try to fit more activity into your daily routine. See page 8 for more information on this.

## Diabetes

Having diabetes substantially increases the risk of developing coronary heart disease. There are two types.

**Type 1 diabetes** is when the body cannot make any insulin. **Type 2 diabetes** is when you can't produce enough insulin, or the insulin doesn't work properly. Your body needs insulin to help control the level of glucose in your blood.

Type 2 diabetes is more common than type 1. Type 2 diabetes tends to develop gradually after the age of 40, and in many cases is linked to being overweight and not being physically active.

### How physical activity can help

If you are at high risk of developing type 2 diabetes – for example, because you are overweight or not physically active, or have a family history of type 2 diabetes – physical activity can greatly reduce your overall risk of developing the disease.<sup>1</sup>

### If you have type 2 diabetes

If you already have type 2 diabetes, being physically active can help to control your blood glucose levels, and reduce your risk of developing coronary heart disease.

When you exercise, make sure that you wear properly

fitting footwear, which provides good cushioning.

If your diabetes is treated with insulin or certain tablets, you may need advice on how to manage your blood glucose level before, during and after exercise. Your doctor or diabetic nurse can give you advice you about this.

For more information, see our booklet *Diabetes*.

For more information on all the risk factors for coronary heart disease, see the booklets listed on page 55.

## If you already have a heart condition

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### Is it safe for me to become more active?

If you have a heart condition, it is still very important to keep physically active, as this will help to maintain your heart health or may help to prevent your heart disease from getting worse.

**If you already have a heart condition, it is important to talk with your doctor, nurse, cardiac rehab team, physiotherapist or exercise specialist about the best way to increase your level of physical activity. This is especially important if you're not used to doing physical activity.** There are many different ways to keep active, and it's important to find activities which are safe and right for you. **It's also important that you build your activity level up gradually.** For more on this, see page 13.

You may have already had an ECG (electrocardiogram) exercise test, either on a treadmill or exercise bike. The results of this test can help the medical team work out how much activity you can safely do at first.

### Are there any activities I should avoid?

If you have a heart condition, you may be advised to avoid strenuous everyday activities such as carrying very



heavy objects or heavy DIY or gardening. Exercises such as press-ups and heavy weightlifting are not recommended if you have a heart condition. You should also avoid competitive, vigorous sports such as squash.

### **Is swimming OK?**

Swimming is OK for many people with a heart condition, but for some people it can increase the strain on the heart. If you have a heart condition and you want to take up swimming, it is very important that you check with your doctor or nurse first. If you have recently had a heart attack or heart surgery, but you used to swim regularly before that, you may eventually be able to go back to swimming. However, it's important that you check with your doctor or cardiac rehab team before you start swimming again.

### **If you're taking medicines for your heart condition**

If you're taking medicines for your heart condition and are thinking of starting a new activity, check with your doctor whether it is OK for you to do that activity and how much it is safe to do.

If your doctor ever gives you any new medicine, ask whether it affects what sort of activity you can do. This applies to medicines such as beta-blockers which slow

down the heart rate.

On the next pages we give some specific information for people who have particular heart conditions or who have had certain types of treatment.

## If you get angina

Angina is the pain or discomfort that you get as a result of coronary heart disease (see page 16). People describe it as a heaviness or tightness in their chest which can often make them feel breathless. For some people, angina can be severe and limiting, while other people experience no more than a mild discomfort. The pain or discomfort often happens when the person is being active – when the heart muscle's demand for oxygen is high but the narrowed coronary arteries cannot deliver enough oxygen-containing blood.

## How physical activity can help you

Regular physical activity can help with your angina symptoms as it helps to improve the blood supply to the heart. It can also help prevent your coronary heart disease from getting worse.

## What you can do

It is important to find out how much activity you can manage to do easily without getting your angina symptoms.

To begin with, it may be helpful to plan a weekly exercise programme based on walking. Walking is an ideal activity which you can include in your everyday life, and it's free!

Choose a walking distance and speed that you know you can manage easily without getting angina. Make this your target. Do this amount twice a day for two days. Each time, judge whether the activity was easy or difficult. If it was fairly easy or easy, very gradually increase the distance each day for the next two days. If the activity was difficult, limit yourself to a slower speed or a shorter distance, until you find it easy.

Make sure that you can do the activity easily before increasing your target. And keep your activity regular and frequent and within, rather than beyond, your limits.

### **Sensible precautions**

#### **If you get angina**

- It is particularly important to warm up before you start your activity, and cool down for a few minutes at the end. (See *Warming up and cooling down* on page 14.) This may reduce the chance of you experiencing your angina symptoms.
- Try to avoid doing physical activity after a heavy meal or in either very cold or very hot weather.
- Your doctor may have given you a GTN spray or tablets. Have these with you when you are doing any physical activity.
- If you get angina while you are exercising, you

should stop what you are doing and rest until the discomfort passes. Take your GTN spray and tablets, following the instructions your doctor or nurse gave you. For information on what to do if you get chest pain, see page 52.

- If you are about to do any activity which you know is likely to bring on angina symptoms – for example, climbing a hill – you might want to take your GTN spray or tablets beforehand to try and avoid having an angina episode. Ask your doctor about what dose to take.
- If you notice a change in pattern in your angina – for example, if it happens more frequently, or if it is happening while you are resting – and you find you are not able to do what you once could, stop the activity and speak to your doctor as soon as possible about the changes.

See also *Is it safe for me to become more active?* on page 24.

For more information, see our booklet *Angina*.

## **If you have recently had a heart attack**

A heart attack happens when one of your coronary arteries (the arteries that supply your heart muscle with oxygen-containing blood) becomes blocked with a blood clot. Part of your heart muscle becomes starved of oxygen and may become permanently damaged.

## **How physical activity can help you**

Physical activity plays an important part in helping you to recover after a heart attack. It builds up your strength, stamina and confidence and can also help to improve feelings of wellbeing.

In people who have had a heart attack, regular physical activity can help to reduce future episodes of angina and reduces your risk of dying from a heart attack.<sup>6</sup>

## **What you can do**

It is natural to feel a bit nervous about starting to do physical activity again after a heart attack. However, it is important to gradually start being active again.

Start with light activities and gradually increase how much you do as you become stronger and more confident. When you first get back from hospital after your heart attack, start doing light activities at home as soon as you feel fit and able – for example, washing up

and dusting. After a few weeks, you may feel well enough to do other housework such as light vacuuming. You can do light gardening, but avoid digging and heavy lifting.

**Walking** is an ideal form of activity during the early weeks after a heart attack. If the weather is OK, go out with a friend or relative for a short walk, ideally somewhere fairly flat. As well as helping your recovery, getting into the fresh air and taking some exercise can help to lift your spirits.

Gradually increase the amount of walking you do over the first two or three weeks after your heart attack. After two or three weeks, you should be able to walk longer distances.

Many people find that they tire easily in the early weeks after a heart attack. This is normal and will pass as your strength and confidence return.

Avoid walking outdoors when it is either very hot or very cold, as extremes of temperature affect the heart and circulation. Instead, try walking on the spot or up and down the hallway at home for the same length of time, or do some walking in your local shopping centre or supermarket.

You may be invited to take part in a **cardiac rehabilitation programme** after you are discharged from hospital. For more on this, see page 43.

## Sensible precautions

### **If you have recently had a heart attack**

If you get symptoms such as angina or breathlessness while you are doing your physical activity, it is important to stop and rest. Have your GTN spray or tablets with you and use them when you need to. See page 52 for information on what to do if you get chest pain.

There are many other activities that you can do as you get stronger and more confident. But before starting any new activity or sport, you should ask the health professional looking after you – for example, your doctor, cardiac rehab team or exercise specialist – about what it is safe for you to do.

**The advice you are given about physical activity may be different to the advice that other people get. This is because everyone is different. Follow carefully the advice that your doctor or health professional gives you.**

See also *Is it safe for me to become more active?* on page 24.

For more information, see our booklet *Heart attack*.



## If you have heart failure

Heart failure is the term used when the heart becomes less efficient at pumping blood round the body, either when you are resting or active. The main symptoms of heart failure are breathlessness, swollen ankles and feet, and tiredness.

The most common causes of heart failure are a previous heart attack, and high blood pressure.

## How physical activity can help you

Regular physical activity will improve your stamina and fitness, which can help you cope with the symptoms of heart failure.

## What you can do

Ask your doctor, nurse, cardiac rehab team or exercise specialist about the best type of activity for you, and how much activity you should be doing, so that you can make sure you are active at a level that is safe and right for you.

**Walking** is a good activity as you can build it into your daily routine.

Sometimes you may feel like you can't do much at all, but think about what you already do – like going to the shops or walking in the garden, moving around the house to do housework or to make a cup of tea. Any

activity is good for you. Gradually increase your activity if you can, until you reach the level which is best for you.

If you have heart failure, you may have good days and bad days. On the good days, you may feel that you can do lots of things. But you need to find a balance between doing too much and too little. Plan what you know you can achieve in a day. Then, each day, stick to your plan, rather than doing what you feel you can do. If you overdo it, you may feel very tired for the next day or so, and may be limited in your activity.

If you have heart failure, you may find it helpful to spread your activity throughout the day. Doing a small amount of activity each time, along with regular rest periods, can often be helpful.

If, when you are doing your activity, you notice that you're getting more breathless than usual, or that your ankles are more swollen than usual, stop doing your activity and speak to your cardiologist or GP.

See also *Is it safe for me to become more active?* on page 24.

For more information on heart failure, see our booklets *Living with heart failure* and *The heart failure plan*.

## If you have heart valve disease

A diseased or damaged heart valve can affect the flow of blood in your heart in two ways. 'Stenosis' is when a valve does not open fully. 'Regurgitation' is when a valve does not close properly and allows blood to leak backwards. Both of these may put extra strain on your heart.

The causes of heart valve disease include being born with an abnormal valve, having had rheumatic fever, ageing of the heart, and certain infections.

The symptoms of heart valve disease vary from one person to another. People who have mild heart valve disease may have few or no symptoms. However, others may suffer from feeling tired, feeling breathless, or swollen ankles and legs.

## What you can do

Many people with a heart valve problem can achieve a good level of physical activity, especially if their heart valve disease is only mild. However, some people may find that they cannot do as much activity as they used to, or may feel restricted in the types of activities they feel able to do.

If you have heart valve disease, it is very important that you ask your cardiologist or GP about the level and the type of physical activity that you can safely do. See also

*Is it safe for me to become more active?* on page 24, and page 13 for information on how to build up your activity gradually.

Some people who have had a heart valve replacement need to take anticoagulants (blood-thinning drugs) – such as warfarin – to reduce the risk of blood clots forming on their heart valve. If you are taking anticoagulants and you take part in contact sports or sports where there is a high risk of physical injury (even minor injury), you will need to discuss this with your doctor because of the risk of bleeding.

For more information, see our booklet *Heart valve disease*.

## If you have recently had heart surgery

### How physical activity can help you

If you have recently had coronary bypass surgery, or surgery to repair or replace one of your heart valves, it is important to gradually start being active again as soon as you can. This will help with your recovery and also improve your overall heart health.

### What you can do

You may be surprised at how soon after heart surgery you'll be able to move around again. The physiotherapist will make sure that you are walking up and down stairs comfortably before you go home from hospital.

When you go home, exercise, such as walking, is ideal.

Start slowly and build up gradually as you feel able.

Gradually you will be able to walk longer distances.

Before you leave hospital, ask your cardiac rehab team or physiotherapist how much activity you should do when you go home and how to gradually increase the amount you do.

You will not be able to lift, push or pull anything heavy or do heavy work in the home until your breastbone is healed.

It is important to speak to your doctor, nurse or cardiac

rehab team before you start any new or strenuous activity. They will be able to offer you advice and assess how much you can do after the particular type of surgery you have had.

You may be invited to take part in a **cardiac rehabilitation programme** after you go home from hospital. This will help you to recover more quickly and improve your fitness. For more on this, see page 43.

For more information, see our booklet *Having heart surgery*.

## **If you have had an angioplasty that was planned in advance**

You may feel tired after having your angioplasty, but most people find that they're back to normal within a few days.

It is best to avoid doing any demanding activities, like heavy lifting, for at least a week.

If your doctor or nurse says it's OK, you should gradually increase your activity.

However, if you have had an angioplasty because you recently had a heart attack, you will need to build up your activity at a slower rate than this. For more information, see *If you have recently had a heart attack*, on page 30.

## If you have a pacemaker or ICD

Pacemakers and ICDs are devices that are implanted in the chest wall to help treat certain abnormal heart rhythms.

A **pacemaker** may be used if there is a problem with the electrical conduction system in your heart. The pacemaker sends out electrical impulses to stimulate the heart to contract and produce a heartbeat.

An **ICD** (implantable cardioverter defibrillator) is used for people who are at risk of having a dangerous abnormal heart rhythm. It can deliver either pacing treatment (as described above) or an electrical shock, to get the heart rhythm back to normal.

## How physical activity can help you

Building physical activity into your everyday routine will help you to recover after you have had your pacemaker or ICD fitted. It will also help protect your heart health and help prevent further heart disease.

## What you can do

### If you have either a pacemaker or ICD

After you have had your pacemaker or ICD fitted, you will be advised not to do any strenuous activity for about six weeks. For the first few weeks, don't lift the arm, which is

on the same side as your pacemaker or ICD, above shoulder height. This is because there is a very small risk that one of the leads of the device might move out of position. However, during these first weeks it is very important to keep your shoulder mobile by gently moving the arm on the side of the pacemaker or ICD.

After that, you can carry on – or take up – most activities and sports. But check with your pacemaker clinic or ICD clinic or your doctor first. Also, see page 13 for information on how to build up your physical activity gradually, and also the *Safety tips* on page 49.

If you play sports such as football, you should take care to avoid collisions, as these could damage the device. You should discuss any contact sports with the staff at your pacemaker or ICD clinic. They might advise you to use a protective pad over the pacemaker or ICD site.

For more information on pacemakers, see our booklet *Pacemakers*.

## **If you have an ICD**

There are lots of activities that you can do safely with an ICD.

Moderate-intensity physical activity is safe for most people who have an ICD. It is important that you warm



up before doing your activity and cool down for a few minutes afterwards. (See *Warming up and cooling down*, on page 14.) The amount and type of activity you are able to do will depend on your condition. Ask your cardiologist, nurse or cardiac physiologist about how much and what type of activity you can do.

Most of the arrhythmias that trigger ICDs to discharge an electrical shock are significantly faster than your normal heart rate would reach, even with strenuous exercise. However, occasionally the ICD needs to be programmed to recognise the difference between a normal fast heart rate that you may achieve through strenuous exercise, and an abnormal fast heart rhythm.<sup>7</sup> If you are concerned about this, ask about it at your ICD clinic.

Avoid doing activities that could be dangerous if your ICD were to deliver its defibrillation treatment – for example, scuba diving, or swimming on your own. Also, if you have an ICD, it may be difficult for you to get insurance to cover skiing or sports classed as ‘extreme sports’.

Some people who have an ICD are limited in the type of activity or level of activity they can do, because of the underlying health condition which caused them to need the ICD in the first place. If you think this might apply to you, ask the health professional looking after you.

For more information on ICDs, see our booklet *Implantable cardioverter defibrillators (ICDs)*.

## Physical activity as part of cardiac rehabilitation

**Cardiac** means to do with the heart. **Rehabilitation** is the process of getting you back to as full a life as possible.

‘Cardiac rehabilitation’ is sometimes called ‘cardiac rehab’.

If you have had a heart attack or heart surgery, or if you have been diagnosed with a heart condition, you may be invited to go on a **cardiac rehabilitation programme**.

This may be either at your local hospital or in the community. If you haven't already been invited to a programme and you feel that it could help you, ask your GP or practice nurse if they can refer you to one. Or, see page 45 for how to find out what programmes are running in your area.

A cardiac rehabilitation programme often includes advice on lifestyle including healthy eating and relaxation techniques, as well as specially designed exercise sessions which will give you the confidence to build up your level of physical activity gradually and safely.

**The aim of the exercise part of the programme is to help your recovery and improve your fitness and strength. It can also improve your confidence.** By going to a cardiac rehabilitation programme, you can reduce the chance of any further heart problems. It can also help to promote your health and help you to live longer.<sup>8</sup>

Before you start the programme, you will have an assessment to find out how much exercise you can safely do. A nurse, physiotherapist or an exercise specialist can then work out a programme of exercises for you, tailoring the programme to your particular needs.

If you are quite limited by your heart disease, or if you have another condition that affects your movement – such as arthritis – they will be able to work out a special activity programme for you.

You will be encouraged to start slowly and gently, and to increase your activity gradually over the weeks of the programme. It is very important that you work within your limits and follow the advice given to you.

The types of activities and exercise sessions vary from one programme to another. Most programmes offer exercise sessions for groups, but some can provide one-to-one sessions.

The main exercises will be ‘aerobic’. These are exercises that help to improve your heart and circulation. (See page 8.) Most cardiac rehabilitation programmes include a number of different types of exercises. Some use equipment such as exercise bikes, and some may include chair-based exercises.

If you have uncontrolled symptoms – for example, if you

have very high blood pressure – you may not be able to do the exercise session, but you can still benefit from the other parts of the cardiac rehabilitation programme.

For more information on cardiac rehabilitation programmes, see our booklet *Cardiac rehabilitation*.

To find out if there is a cardiac rehabilitation programme in your area:

- ask your GP, nurse or cardiologist
- call the Heart Helpline on 0300 330 3311, or
- visit the Cardiac Rehabilitation website [www.cardiac-rehabilitation.net](http://www.cardiac-rehabilitation.net)

### **After your cardiac rehabilitation programme**

At the end of your cardiac rehabilitation programme, there is sometimes the opportunity to be referred to a long-term activity programme. This may consist of **fitness classes**, at leisure centres or community centres, which are specially tailored for people with heart conditions. You can ask one of the cardiac rehab team about this.

In some local areas there is an **exercise referral programme**. These programmes are usually aimed at people who are not used to physical activity and who have a heart condition or diabetes, or who are overweight. The programmes may offer exercise classes or walking groups. Or sometimes a trained exercise

professional will create a gym programme tailored to your needs. You will need to be referred by your GP or nurse to this service. To find out if there is an exercise referral programme in your area that is suitable for you, ask your GP, nurse or cardiac rehab team.

There are probably many other different activity groups that run independently in your local area, and that anyone can join – such as walking groups, dancing classes or gardening work. (See page 9 for more about these.) Before you go along, you will need to check with your doctor that the activity is OK for you. You will also need to let the staff at the group know about your heart condition.

## **Sex and heart disease**

People with a heart condition, and their partners, are often understandably anxious about how sex may affect the heart. Many people with heart conditions continue to enjoy sex, and most of those people who have had a treatment for their heart condition can return to their sex life.

Like any other physical activity, having sex can increase the heart rate and blood pressure. This increases the work of the heart and, for some people with a heart condition, sex may bring on symptoms such as breathlessness or

chest discomfort. However, sex is just as safe as other equally energetic forms of physical activity or exercise.

If you have had a heart attack and have had an uncomplicated recovery, you can have sex when you feel comfortable to do so, usually after about four weeks.<sup>9</sup>

After you have recovered from your heart attack, sexual activity presents no greater risk of triggering another heart attack than if you had never had a heart attack.<sup>9</sup>

If you have had heart surgery, you can have sex as soon as you feel you have recovered. For most people this is within a few weeks, but some people prefer to wait longer until they feel ready. If you have had heart surgery, be careful not to put the chest wound under too much pressure.

If you are not sure when you can start having sex, talk to your GP.

To reduce the chance of having angina symptoms during sex, avoid having sex after a heavy meal, and try not to be too energetic at the start of your sexual activity. Also, if you have a GTN spray or tablets, keep it nearby in case you need it.

Loss of sex drive is not uncommon after illness. Some men may experience impotence (the inability to get or keep an erection). This may be the result of the emotional

stress you are feeling. However, occasionally it can also be the result of certain drugs, such as beta-blockers, which can affect your sex drive. It may also be the result of poor blood circulation or diabetes. Impotence is a common problem, so if you are having difficulties, talk to your doctor about it.

If you have a heart condition, you should be cautious about taking PDE-5 inhibitors such as Viagra. You should not take these medications if you are taking GTN or any other medication containing nitrates. PDE-5 inhibitors can also interfere with other medicines for your heart, so always check with your doctor beforehand.

For more information, see our DVD *Sex and heart disease* (see page 54).



## Safety tips

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- **It is very important to increase your physical activity gradually.** This means both the amount of time you spend doing it, and how intense the activity is.
- **Warm up and cool down each time you do any physical activity.** Begin slowly for the first few minutes and build up gradually. When you come to the end of your activity, take time to slow down, and make sure you don't stop suddenly.
- Avoid doing activities after a large meal, or when it is very hot or very cold, or at high altitudes.
- If you are doing any activity outdoors in cold or windy weather, dress warmly, with a hat and a scarf.
- Don't exercise if you have a viral infection (for example, a sore throat) or a temperature.
- If you are doing sport or activity, make sure your clothing and footwear are comfortable and fit well. This is especially important if you have diabetes.
- If you have a heart condition or high blood pressure, or if you are taking medication for these conditions, don't start any new activity without discussing it first with your doctor.
- If you get angina, take your GTN spray or tablets with you when you do any physical activity. If, while you are

exercising, you get an episode of angina or think you may be about to get an episode, take your GTN as prescribed.

- Stop exercising if you get any pain, or feel dizzy, sick or unwell, or very tired. If the symptoms don't go away, or if they come back later, see your doctor or go to your nearest accident and emergency department. For information on what to do if you get chest pain, see page 52.

## Do I need to measure my pulse or heart rate while I'm exercising?

You don't need to take your pulse or measure your heart rate to find out if you are exercising at moderate intensity.

To find out if you are exercising at moderate intensity, you can do the **talk test**. If, while you are doing the activity, you feel warm and are breathing more heavily than normal, but you can still talk, you are probably working at the right level.

Some people do choose to check their pulse when they exercise. This can help you exercise in an effective way. Measuring your own pulse tells you the number of times your heart beats in one minute. You can check your pulse either by hand or using a special monitor. Ask the health professional looking after you for advice about what pulse or heart rate you should aim for.

Some medicines that are used to treat heart conditions – such as beta-blockers – slow down the heart rate and prevent the heart from responding to exercise as it normally would. So, if you are taking these medicines, it may be easier and more effective to do the 'talk test' while you are exercising, rather than monitoring your heart rate.

## What to do if you get chest pain

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If you have not been diagnosed with heart disease and you get chest pain, you should call 999 immediately for an ambulance.

The information below is for people who already have coronary heart disease and are being treated for it with GTN (glyceryl trinitrate) spray or tablets.

As you already have coronary heart disease, you may get chest pain or discomfort now and then. Sometimes this will be angina, which you will be able to manage at home with your GTN. However, it could also be the symptom of a heart attack. Below we explain what to do if you get:

- a crushing pain, or heaviness or tightness in your chest,  
**or**
- a pain in your arm, throat, neck, jaw, back or stomach.

You may also sweat, feel light-headed, sick, or short of breath.

This is what to do.

- 1 **Stop** what you are doing.
- 2 **Sit down** and rest.
- 3 **Take your GTN spray or tablets.** Take the GTN as your

doctor or nurse has told you. The pain should ease within a few minutes. If it doesn't, take your GTN again.

- 4 If the pain does not ease within a few minutes of taking the GTN the second time, **call 999 immediately.**
- 5 If you're not allergic to aspirin, chew an adult aspirin tablet (300mg) if there is one easily available. If you don't have an aspirin next to you, or if you don't know if you are allergic to aspirin, just stay resting until the ambulance arrives.

If you have symptoms that do not match the ones we have described above but you think you are having a heart attack, call 999 immediately.

**Remember, if at any time you think you are having a heart attack, call 999 immediately.**

## For more information

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### British Heart Foundation website

**bhf.org.uk**

For up-to-date information on heart disease, the BHF and its services.

### Heart HelpLine

**0300 330 3311**

A local rate number.

For information and support on anything heart-related.

### Booklets and DVDs

To order any of our booklets or DVDs:

- call the **BHF Orderline** on **0870 600 6566**, or
- email **orderline@bhf.org.uk**, or
- visit **bhf.org.uk/publications**

You can also download many of our publications from our website.

For information on other BHF booklets, and on DVDs and videos, ask for a copy of the *Heart health catalogue*.

Our booklets are free of charge, but we would welcome a donation. (See page 2 for how to make a donation.)

## Heart Information Series

This booklet is one of the booklets in the *Heart Information Series*. The other titles in the series are as follows.

- 1 Physical activity and your heart
- 2 Smoking and your heart
- 3 Reducing your blood cholesterol
- 4 Blood pressure
- 5 Eating for your heart
- 6 Angina
- 7 Heart attack
- 8 Living with heart failure
- 9 Tests for heart conditions
- 10 Coronary angioplasty
- 11 Heart valve disease
- 12 Having heart surgery
- 13 Heart transplantation
- 14 Heart rhythms
- 15 Pacemakers
- 16 Peripheral arterial disease
- 17 Medicines for the heart
- 18 The heart – technical terms explained
- 19 Implantable cardioverter defibrillators (ICDs)
- 20 Caring for someone with a heart condition
- 21 Returning to work with a heart condition
- 22 Diabetes and your heart
- 23 Cardiac rehabilitation
- 24 Atrial fibrillation
- 25 Keep your heart healthy

## Heart Matters

Heart Matters is a **free** service designed for anyone who has, or is at risk of developing, a heart condition, and for anyone who cares for someone with a heart problem. Members receive personalised information, and can get specialist support from cardiac nurses or heart health advisers, either by phone or email. They also get regular issues of *Heart health* magazine, which includes updates on treatment and research and looks at issues related to heart health. To join Heart Matters, either register at our website [bhf.org.uk/heartmatters](http://bhf.org.uk/heartmatters) or call **0300 330 3300** (a local rate number).

## Emergency life-support skills

### Heartstart UK

For information about a free, two-hour course in emergency life-support skills, contact Heartstart UK at the British Heart Foundation. The course teaches you to:

- recognise the warning signs of a heart attack
- help someone who is choking or bleeding
- deal with someone who is unconscious
- know what to do if someone collapses, and
- perform cardiopulmonary resuscitation (CPR) if someone has stopped breathing and his or her heart has stopped pumping.



## Useful organisations and websites

### Active Places

[www.activeplaces.com](http://www.activeplaces.com)

Allows you to search for a wide range of sports and leisure facilities in England.

### British Trust for Conservation Volunteers (BTCV)

Phone: 01302 388 883

[www.btcv.org/greengym](http://www.btcv.org/greengym)

BTCV runs Green Gyms – a scheme to help improve both your health and the environment at the same time.

### Countryside Council for Wales

Phone: 0845 1306 229

[www.ccw.gov.uk](http://www.ccw.gov.uk)

### British Cycling

[www.britishcycling.org.uk](http://www.britishcycling.org.uk)

For information about cycling, places to ride and cycling events.

### Let's Walk Cymru

Phone: 02920 338357

[www.ww2h.org.uk](http://www.ww2h.org.uk)

For information about health walk programmes in Wales. Also provides information on training and grants.

## **Paths to Health**

Phone: 01259 218855

[www.pathstohealth.org.uk](http://www.pathstohealth.org.uk)

Walking for health in Scotland.

## **Ramblers**

Phone: 020 7339 8500

[www.ramblers.org.uk](http://www.ramblers.org.uk)

## **Sustrans**

Phone: 0845 113 00 65

[www.sustrans.org.uk](http://www.sustrans.org.uk)

Sustainable transport charity. Encourages people to walk and cycle.

## **Walking the Way to Health**

Phone: 0300 060 2287

[www.whi.org.uk](http://www.whi.org.uk)

Encourages people to do regular short walks in their local communities. They support many walk schemes and can tell you where your nearest walks are.

## **For people with mobility problems or a disability**

### **British Wheelchair Sport**

Phone: 01296 395995

[www.wheelpower.org.uk](http://www.wheelpower.org.uk)

## **Disability Sport England**

Phone: 0161 953 2499

[www.disabilitysport.org.uk](http://www.disabilitysport.org.uk)

## **Disability Sport Wales**

Phone: 0845 846 0021

[www.disabilitysportwales.org](http://www.disabilitysportwales.org)

## **Extend**

Phone: 01582 832760

[www.extend.org.uk](http://www.extend.org.uk)

Offers local exercise classes for those aged over 60 and for less able people of all ages.

## **Inclusive Fitness Initiative**

Phone: 0114 257 2060

[www.inclusivefitness.org](http://www.inclusivefitness.org)

For details of centres, with special equipment and specially trained staff, offering fitness programmes for disabled and less mobile people.

## **Thrive**

Phone: 0118 988 5688

[www.thrive.org.uk](http://www.thrive.org.uk)

A charity which helps people with disabilities to take part in, benefit from and enjoy gardening.

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## Technical terms

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<b>aerobic activity</b>	Repetitive, rhythmic movement involving large muscle groups such as the legs, shoulders and arms.
<b>angina</b>	A pain or discomfort in the chest, usually caused by coronary heart disease. In some people the pain may affect only the arm, neck, stomach or jaw.
<b>atheroma</b>	Fatty material within the walls of the arteries.
<b>atherosclerosis</b>	The build-up of fatty material within the walls of the arteries.
<b>cholesterol</b>	A fatty material mainly made in the body by the liver.
<b>coronary heart disease</b>	When the walls of the coronary arteries become narrowed by a gradual build-up of fatty material called atheroma.
<b>HDL</b>	High density lipoprotein. The 'protective' cholesterol.
<b>heart failure</b>	A condition where the heart is not pumping as efficiently as it should.
<b>LDL</b>	Low density lipoprotein. The more 'harmful' cholesterol.
<b>osteoporosis</b>	Thinning of the bones which makes them fragile.

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## Have your say

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We would welcome your comments to help us produce the best information for you. Why not let us know what you think? Contact us through our website at **bhf.org.uk/contact**. Or, write to us at the address on the back cover.

## Acknowledgements

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# HEART HELPLINE

For information and support on anything heart-related



**0300 330 3311**

local rate number



**bhf.org.uk**

Phone lines open 9am to 6pm Monday to Friday



## British Heart Foundation

Greater London House

180 Hampstead Road

London NW1 7AW

Phone: 020 7554 0000

Fax: 020 7554 0100

Website: [bhf.org.uk](http://bhf.org.uk)