

Cardiac rehabilitation



BEATING HEART DISEASE TOGETHER



About the British Heart Foundation

The British Heart Foundation (BHF) is the nation's heart charity, saving lives through pioneering research, patient care and vital information.

What you can do for us

We rely on donations of time and money to continue our life-saving work. If you would like to make a donation, please:

- call our donation hotline on **0300 330 3322**
- visit **bhf.org.uk/donate**, or
- post it to us at the address on the back cover.

If you wish to make a gift to the BHF in your will, call **0844 847 2787** or email **legacy@bhf.org.uk** and ask for our free booklet, *My generation*.

For other ways to support our work, see **bhf.org.uk/supportus**

British Heart Foundation website

You may find other useful information on our website at:

bhf.org.uk

Contents

About this booklet	4
What is cardiac rehabilitation?	5
What is coronary heart disease?	8
The first few weeks after leaving hospital	12
What happens on a cardiac rehabilitation programme?	24
How can I reduce my risk of further heart problems?	32
Heart support groups	48
What to do if you get chest pain	49
What to do if someone has a heart attack or cardiac arrest	51
For more information	55
References	58
Technical terms	59
Index	61
Have your say	62

About this booklet

This booklet is for people who have been in hospital with a heart condition, or who have had a procedure or treatment for their heart condition. It tells you about how cardiac rehabilitation can help you get back to as full a life as possible. The booklet will also be useful for your family, friends or carers.

The booklet explains:

- what cardiac rehabilitation is
- who cardiac rehabilitation is for
- what coronary heart disease is, and what causes angina and heart attacks
- how you can help your recovery in the first few days and weeks after going home
- what happens on a cardiac rehabilitation programme, and
- what you can do to reduce your risk of further heart problems.

We explain the technical terms used in this booklet on page 59.

This booklet does not replace the advice that your doctors or cardiac rehabilitation team may give you, but it should help you to understand what they tell you.

What is cardiac rehabilitation?

The aim of cardiac rehabilitation is to help you to recover and get back to as full a life as possible after a cardiac event such as a heart attack, or after having a treatment such as coronary bypass surgery. It also aims to help promote your health and keep you well after you go home from hospital.

'Cardiac rehabilitation' is sometimes called 'cardiac rehab'.

Who is cardiac rehabilitation for?

Cardiac rehabilitation can be helpful if:

- you have had a heart attack
- you have had a coronary angioplasty
- you have had coronary bypass surgery or another type of heart surgery
- you have had an implantable cardioverter defibrillator (ICD) fitted, or
- you have stable heart failure.

Cardiac rehabilitation can also be helpful for people who have other conditions such as stable angina, cardiomyopathy or congenital heart disease.

For more detailed information about all these heart conditions and treatments, see the list of booklets on page 56.

When should I start cardiac rehabilitation?

If you are having heart surgery or another procedure that has been planned in advance (such as a coronary angioplasty), ideally you should start introducing some lifestyle changes *before* you have your surgery or treatment. For example, if you smoke you should stop smoking, and if you're overweight you should lose some weight. Introducing these healthy changes early may help to improve your overall wellbeing and speed up your recovery after your treatment.

While you are in hospital

In many hospitals a member of the **cardiac rehabilitation team** will see you while you are on the ward, to give you information about your condition and about the treatment you have had. They can talk to you about your recovery and getting back to your usual activities, about your lifestyle, and how you can protect your heart in the future. Include your partner or a family member in these conversations if possible.

Who is in the cardiac rehabilitation team?

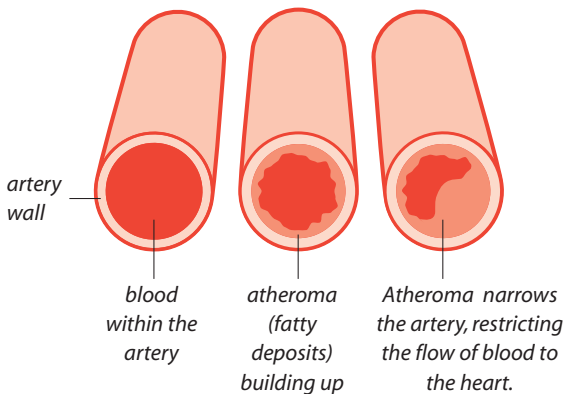
A cardiac rehabilitation team may include a cardiologist, specialist cardiac nurse, physiotherapist, exercise specialist, occupational therapist, dietitian and psychologist. You may not get to see all of these professionals but you may see some of them either while you are in hospital or afterwards as an outpatient.

On the next page, we explain what coronary heart disease is and how it causes angina and heart attacks. This will help you to understand why cardiac rehabilitation is so important in helping to keep your heart healthy.

What is coronary heart disease?

Coronary heart disease begins when the **coronary arteries** – the arteries on the surface of the heart that supply the heart muscle with blood – become gradually furred up with a fatty material called **atheroma**.

How atheroma builds up



In time the artery may become so narrow that it cannot deliver enough oxygen-containing blood to the heart muscle when it needs it – such as when you are doing exercise. The pain or discomfort that happens as a result is called **angina**. For more on this, see our booklet *Angina*.

A **heart attack** happens when a narrowed coronary artery becomes blocked by a blood clot. Part of the heart muscle is starved of oxygen and may become permanently damaged.

For more information about heart attacks, see our booklet *Heart attack*.

How long you need to stay in hospital after having a heart attack varies from person to person. Some people stay in hospital for five days or longer. Others may only need to stay in hospital for two or three days. However, every heart attack is a serious event and cardiac rehabilitation is very important for everyone – however long you have stayed in hospital for.

Tests and treatment

If you have angina or if you have had a heart attack, you will probably have various tests to decide on the best type of treatment. Your doctor may give you medicines, which you will probably need to continue taking in the long term. If tests show that your coronary arteries are very narrowed, you may need to have a treatment such as **coronary angioplasty with a stent** or **coronary bypass surgery**.

Sometimes coronary angioplasty is done as a treatment that is planned beforehand, and sometimes it is done as an emergency treatment for a heart attack. If it is done as an emergency treatment for a heart attack, it is called **primary angioplasty** or **PPCI** (primary percutaneous coronary intervention).

For more information, see our booklets *Coronary angioplasty* or *Having heart surgery*.

What increases the risk of getting coronary heart disease?

A **risk factor** is something that increases the risk of getting a disease. The following risk factors can increase the risk of getting coronary heart disease:

- **smoking**
- **high blood pressure**
- **high blood cholesterol**
- **physical inactivity**
- **being overweight or obese, and**
- **having diabetes.**

These are all risk factors that you can do something about. Cardiac rehabilitation involves making lifestyle changes that will help to reduce all these risk factors and help protect your heart in the future. We explain more

about what you can do about these risk factors on page 32.

Your risk of getting heart disease also depends on other factors, such as your **age**, **family history** and **ethnic background**. You can't do anything about these three risk factors. However, you will still benefit greatly from controlling any other risk factors you may have.

- **Age** – The older you are, the more likely you are to develop heart disease.
- **Family history** – If you have a family history of heart disease, your own risk of developing the condition is increased. A family history means if your father or brother was under the age of 55 when they were diagnosed, or if your mother or sister was under 65.
- **Ethnic background** – Certain ethnic groups have a higher risk of coronary heart disease than others. For example, people who were born in certain South Asian countries (such as Pakistan or Bangladesh) and who are now living in the UK are around twice as likely to die from coronary heart disease as the rest of the UK population.¹

The first few weeks after leaving hospital

It's normal to worry or feel anxious when you leave hospital and go home. Make sure that you talk to the hospital staff, the cardiac rehabilitation team or your GP about what you should be allowed or encouraged to do. Everyone is different and you must get advice which is relevant to you. Your family or people close to you may also feel anxious about your recovery and may want to listen to the advice the cardiac rehabilitation team gives you.

Recovery time varies greatly depending on your age, your heart condition and the treatment you have had. People who are older, or who have been particularly unwell, may find it takes longer to recover.

In the first few weeks after you come out of hospital, you are likely to have **good days and bad days**. But as time goes by, you should improve steadily and gradually feel better.

Some cardiac rehabilitation teams can offer you support in these first few weeks. One of the team members may visit you at home or phone you to see how you are. Or they may offer a helpline service which you can call for

advice or information. They may also be able to put you in touch with a local heart support group (see page 48).

The first few days

For the first two or three days at home, it is best to take things easy. Do about the same amount of moving around as you did just before you left hospital. To help with your recovery, each day try to get up, wash and dress, do some light activities such as making drinks and light snacks, go up and down the stairs a few times a day, and do some gentle walking.

Rest is also important for your recovery. It's normal to feel tired after a heart attack or heart surgery. If you're feeling tired, make sure that you rest properly by going to lie down, rather than just dozing in a chair.

If you have had a planned angioplasty with no complications, you may find that you can increase the amount of activity you do more quickly than this. Ask your doctor or cardiac rehabilitation team for advice.

Medicines

When you leave hospital, the hospital staff will give you one or two weeks' supply of your medicines to take home with you. These medicines may be different from the

ones you were taking before you went into hospital. It is important to take your new medicines as prescribed. If you have any questions about your medicines, ask your GP or cardiac rehabilitation team or your pharmacist.

Seeing your GP

It's a good idea to see your GP soon after you get discharged from hospital. When you visit your GP you can ask about any concerns you may have, and get another prescription for your medicines.

Feelings

It's normal to have changing emotions after being diagnosed with a heart problem. You may feel relieved that you have had treatment to help improve your heart condition. But you may be worried that you won't be able to do as much as before, worried about having further heart problems, afraid of dying, or angry at having a heart condition.

All this is natural. You may feel anxious, low, bad-tempered or weepy. It is important to talk about these feelings with your family or friends, the cardiac rehabilitation team, or with people at a heart support group. If you continue to feel low or depressed, talk to your GP.

'Will I have another heart attack, or more heart problems?'

Having coronary heart disease does increase your risk of having heart problems in the future. However, you can dramatically reduce that risk if you take the medicines your doctors have prescribed for you and if you follow a healthy lifestyle. Many people find that going on a cardiac rehabilitation programme gives them – and their partners or carers – confidence and support to work out ways of having a healthier lifestyle (see page 24). Some people find that life after a heart attack or after treatment can be better and more fulfilling than it was before.

Getting active again

Regular physical activity can help with your recovery and can also help you become independent again more quickly.

The amount of physical activity you can do in the weeks after you get out of hospital will depend on your heart condition and the sort of treatment you have had. Aim to do a little bit more activity each day, and gradually build up how long you exercise for and how often. At first, it may seem very tiring, but this is normal and you'll feel less tired as your strength and confidence return.

Walking is an ideal form of exercise to begin with. Try to walk on a flat surface rather than on a hill or steep slope. If the weather is good, walk to your local shop. This will help you to get some fresh air and lift your spirits. It can be helpful if you go walking with a friend or relative at first.

Gradually increase the amount of walking you do over the first two or three weeks after you get out of hospital. You can use a walking diary to keep track of your progress. After two or three weeks you should be able to walk longer distances. Talk to your cardiac rehabilitation team about how to increase your physical activity to a level that is suitable for you.

For more information on physical activity, and some safety tips, see page 38.

Housework and gardening

You can start doing light work in the house 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 jobs such as vacuuming and light gardening.

However, if you have had surgery where the breastbone was cut, you will not be able to lift anything heavy until your breastbone is completely healed, which can take up to three months. This includes carrying heavy baskets of

washing, shopping and watering cans. And you should not pull or push any heavy objects, or do any digging. As you recover, you will gradually be able to get back to your normal routine.

For more information on activities, see *Keep active* on page 38.

Driving

When you can start driving again depends on your heart condition and the sort of treatment you have had. You will need to contact the **Driver and Vehicle Licensing Agency** (DVLA) to make sure it is safe for you to start driving again. (Write to them at DVLA, Swansea SA99 1TU, or call them on 0300 790 6806.)

If you have an ordinary driving licence

If you have **angina** and it is well controlled, you can drive.

If you have had a **planned coronary angioplasty**, you should not drive for one week after having the angioplasty.

Many people who have had a **heart attack** are not allowed to drive for the first month after their heart attack.

Some people who have had a heart attack and have had **successful treatment with an angioplasty** will be able to

start driving again after one week. Check with your doctor or the DVLA.

If you have had **coronary bypass surgery**, you will have to wait at least four weeks before you can start driving again. However, many doctors prefer you to wait for at least six weeks, to make sure your breastbone is healing properly.

If you ever have an attack of angina while you are driving, you should stop driving. Once your symptoms are controlled, you can start driving again.

Whatever sort of cardiac event or treatment or procedure you have had, you will need to let your car insurance company know about your heart problem.

If you have a licence to drive a large goods vehicle (LGV) or a passenger-carrying vehicle (PCV)

If you have one of these licences, you must let the Driver and Vehicle Licensing Agency (DVLA) know that you have a heart problem. (Their contact details are on page 17.) This is because special regulations will apply. Depending on your condition, you may need to have certain tests to help them decide whether you can keep your licence.

For more information on medical standards for driving, visit the DVLA website at www.dvla.gov.uk.

Returning to work

Most people will be able to go back to their previous job afterwards. How soon you return will depend on your heart condition, the type of treatment you have had, and the kind of work you do. Talk to your doctor or the cardiac rehabilitation staff about this.

If you have had a coronary angioplasty that was planned, and there were no complications, you may be able to return to work within a few days, depending on the type of work you do.

If you have had a heart attack or heart surgery, you may be able to go back to work within six weeks if your work only involves light duties. However, if you have a heavy manual job, you may not be able to return for a few months. You may need to get a medical certificate either from the hospital ward or from your GP's surgery.

You may want to ask your employer if they can give you lighter work for a while when you first go back, or if you can return to work gradually – for example, working shorter days or weeks.

Going on a cardiac rehabilitation programme can help you feel more confident about returning to work.

For more information, see our booklet *Returning to work with a heart condition*.

Sex

It is understandable that people with heart disease and their partners may have concerns about their sex life. However, many people with a heart condition continue to enjoy sex, and many people who have had treatment for their heart condition are able to return to their sex life. Like any other physical activity, having sex can temporarily increase the heart rate and blood pressure. This increases the work of the heart and, in people with coronary heart disease, may temporarily lead to breathlessness or chest pain. 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 usually start sexual activity when you feel comfortable to do so – usually after about four weeks.² However, some couples may not feel ready after this time and prefer to wait longer.

If you have had a heart attack, after you have recovered, sexual activity presents no greater risk of triggering another heart attack than if you had never had a heart attack.²

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. Be careful not to put the chest wound under too much pressure.

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 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 emotional stress. Sometimes it can also be the result of taking certain medicines such as beta-blockers which can affect your sex drive. It may also be the result of circulation problems or diabetes. Impotence is a common problem, so if you are having difficulties, talk to your doctor or cardiac rehabilitation team about it.

If you have a heart condition, or if you are taking medicines for your heart condition, you should be cautious about taking PDE-5 inhibitors such as Viagra. Always check with your doctor beforehand.

For more information, see our DVD *Sex and heart disease*.

Alcohol

If you are taking painkillers, alcohol will have a more powerful effect.

If you are taking an anticoagulant such as warfarin, you should drink only a small amount of alcohol, as the alcohol can interfere with how the blood clots.

For more on drinking alcohol, see page 37.

If you are a carer

Caring for someone can be emotionally draining and exhausting. Make sure you have a break yourself.

Eating healthily, doing regular exercise, and getting a good night's sleep will help you to keep well and help you cope with being a carer. For more information, see our booklet *Caring for someone with a heart condition*.

Holidays

A holiday can give you the chance to unwind and rest, but it is often better to wait until you have recovered. Most people are able to fly once they have recovered and as long as their condition is stable. Talk to your doctor or cardiac rehabilitation team about when it's OK for you to go away, and how soon you can fly.

Travelling can be tiring and long journeys can increase the risk of developing a deep vein thrombosis (DVT). So, if you are travelling, make sure you have frequent breaks to get up and walk around. Whichever form of transport you are taking, allow plenty of time for your journey, and

don't carry heavy bags.

If you go on holiday, avoid travelling to countries that are very hot or very cold, and avoid places at a high altitude. You might want to think about staying in accommodation that is easily accessible and close to amenities. Avoid hilly destinations unless you are fit enough for that level of activity.

When you go away, keep an up-to-date list of all your medicines with you, just in case you lose any of them. Take some medicines in your hand luggage as well as in your main luggage. And make sure you have suitable travel insurance.

Outpatient appointment

You will be given an outpatient appointment to visit your cardiologist or surgeon at your local hospital. This appointment is usually about six weeks after you are discharged from hospital.

At your outpatient appointment, your doctor will assess how well you are recovering, and if necessary change any medicines or repeat some tests.

Before you go for your appointment, you may find it helpful to write down any questions you want to ask the doctor.

What happens on a cardiac rehabilitation programme?

You should be invited to go on a cardiac rehabilitation programme, which usually starts about four to eight weeks after you leave hospital.

People who follow a cardiac rehabilitation programme can get fitter and recover more quickly. The information and support you get from the programme can help you to make healthy lifestyle choices. Cardiac rehabilitation has been found to reduce the risk of dying from coronary heart disease, and helps reduce some of the risk factors for the disease.³

The programme usually involves going to a session lasting about one or two hours, once or twice a week for around eight weeks. Some programmes may have shorter or longer sessions, and they may vary in the number of weeks they run for. Programmes are usually run in a hospital or a community or leisure centre, and may be done in group sessions or individually.

Most programmes are for people who have had a heart attack, or for those who have had a coronary angioplasty or coronary bypass surgery. Some cardiac rehabilitation programmes invite people who have other conditions,

such as stable angina or stable heart failure, or people who have had other types of heart surgery.

Cardiac rehabilitation programmes and services vary widely throughout the country, but programmes usually include one or more of the following:

- exercise
- education, and
- relaxation and psychological support.

Exercise

Exercise is an important part of your rehabilitation as it will help with your recovery and improve your fitness, strength and general wellbeing. Regular exercise also helps to keep your heart healthy in the future.

The types of activities and exercise sessions at the cardiac rehabilitation programme vary from one programme to another. Most programmes offer exercise sessions for groups, but some can provide one-to-one sessions or women-only sessions.

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 – you may find that your activities are restricted. However, doing even a small amount of activity can be helpful in regaining your confidence, helping your recovery and improving your fitness.

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

Before beginning an exercise session, you will do some gentle warm-up movements to get your joints moving and to prepare your muscles and heart for exercise.

The main part of the exercise sessions will be 'aerobic'. These are exercises that help to improve the fitness of your heart and circulation. Most cardiac rehabilitation programmes include a range of different exercises. Some use equipment such as exercise bikes and some may include chair-based exercises.

At the end of each exercise session, you will do a gentle cool-down which is essential for ending the exercise session safely. This also helps prevent your muscles aching the next day.

While you're doing your exercise, you may be asked to record your heart rate. (Someone will show you how to do this.) You may also be asked to rate how hard you feel you are working. This information can help you and the staff know if you are exercising at the right level and intensity.

If you have unstable angina or uncontrolled symptoms, you may not be able to do the exercise session, but you can still benefit from the other parts of the cardiac rehabilitation programme.

Education

The cardiac rehabilitation programme may include information or education sessions on particular topics, including the ones listed on the next page. The aim is to help you make healthy lifestyle choices, which may help reduce your risk of further heart problems.

Some people may receive individual help or support to make healthy changes – for example, help with stopping smoking or losing weight.

Some of the topics covered in cardiac rehabilitation programmes

- Different types of heart conditions such as coronary heart disease and heart attack.
- Treatments for heart conditions, including heart operations, coronary angioplasty and medicines.
- The risk factors for coronary heart disease – such as smoking, high blood cholesterol and high blood pressure – and what you can do about them to help reduce your risk. (For more on risk factors, see page 32.)
- Healthy lifestyles – including healthy eating and physical activity.
- Practical issues such as driving, returning to work, and holidays.
- What you or your relatives or friends should do if there is an emergency.
- How to manage stress.

Some programmes also invite different specialists, such as dietitians, to come and speak to the group.

Relaxation and psychological support

Some cardiac rehabilitation programmes teach you different relaxation techniques so you can find one that suits you. You'll also find out how important relaxation is in helping to manage stress.

Some programmes may offer one-to-one counselling or advice on managing stress to people who need it. Or, if you need some help with coming to terms with your heart condition, you may be able to see a psychologist.

Other benefits of a cardiac rehabilitation programme

Going to a rehabilitation programme can offer other benefits as well. It can improve your confidence and helps you return to your usual activities more quickly. It gives you the chance to ask questions or talk about any worries you may still have, which can help relieve anxiety. You can also meet other people who have been through the same thing as you, which some people find very helpful. It can be good fun too.

If possible, encourage your partner or a family member or friend to go along with you. This can help reassure them and also gives them the chance to ask any questions. They may also benefit from talking to other carers. Most

programmes are happy for you to bring a partner, relative or friend with you to the programme, but check with your rehabilitation team to make sure.

After the programme

After you have finished your cardiac rehabilitation programme, it is vital to carry on with regular physical activity and a healthy lifestyle in the long term. This will help protect your heart and reduce your risk of further heart problems.

The cardiac rehabilitation staff, or your doctor, may refer you to some ongoing exercise classes. Some leisure centres and gyms run classes for people with heart conditions and have specially trained instructors who can help you. Also, some heart support groups run exercise classes. Or, you may prefer to do your own exercise. (See page 38.)

Your rehabilitation team can also refer you to other services to help you continue with the lifestyle changes you want to make – such as a stop-smoking service.

How can I find out about my nearest rehabilitation programme?

If you have not already been invited to a cardiac rehabilitation programme, ask your GP, or visit www.cardiac-rehabilitation.net or call our Heart HelpLine on **0300 330 3311**.

What if I can't get to a rehabilitation programme?

If it is difficult for you to get to a rehabilitation programme at the local hospital – for example, if you live in a rural area – you will be given advice on your recovery. Some areas may offer a programme to follow at home.

How can I reduce my risk of further heart problems?

There are several things you can do to help keep your heart healthy and reduce the risk of further heart problems.

- If you smoke, stop smoking.
- Control high blood pressure.
- Control high blood cholesterol.
- Eat a healthy, balanced diet.
- Keep physically active.
- Keep to a healthy weight and body shape.
- If you have diabetes, control your blood glucose.
- Take your medication as prescribed.

If you smoke, stop smoking

Smoking is one of the major causes of coronary heart disease and increases the risk of having a heart attack.

If you are a smoker, stopping smoking is the single most important step you can take to reduce the risk of having a heart attack.

For those people who have already had a heart attack, stopping smoking soon after a heart attack significantly reduces the risk of dying from a further heart attack.⁴

Your GP, practice nurse or cardiac rehabilitation team can give you advice on how to give up, and information on stop-smoking services, nicotine-replacement products and medication to help you stop smoking. Or, try one of the following helplines or websites.

- **NHS Smoking Helpline**

0800 022 4 332.

www.smokefree.nhs.uk

- **Quitline**

0800 00 22 00

www.quit.org.uk

Quitline also runs helplines in different languages.

For more information on smoking, see our booklet *Smoking and your heart*.

Control high blood pressure

High blood pressure increases the risk of having a heart attack or a stroke, and over time it can cause the heart muscle to become less efficient.

If you have high blood pressure, it is essential to control it. Even a small reduction in blood pressure can lower your risk. If you have had a heart attack, or if you have coronary heart disease or diabetes, **your target is to have a blood pressure below 130/80.**⁵ Some people can control their blood pressure by losing weight, doing more

physical activity and cutting down on alcohol and salt (see pages 37 to 45). However, many people need to take medicines too.

For more information on high blood pressure, see our booklet *Blood pressure*.

Control your blood cholesterol

A high cholesterol level can increase the risk of heart disease and your risk of having further heart problems. The most common cause of high cholesterol is having too much saturated fat in your diet.

People who have had a heart attack or who have coronary heart disease should **aim for a total cholesterol level under 4 mmol/l**.⁵ (Mmol/l means millimols per litre.)

To help reduce your cholesterol level, you need to cut down the amount of saturated fats that you eat. For more on this see the next page.

If you have coronary heart disease, or if you have had a heart attack, it is likely that your doctor will give you a medicine such as a **statin**. This is to reduce your cholesterol level and to give your heart further protection. Even if you don't have high cholesterol levels, it is likely that you will still benefit from taking these medicines.

For more information, see our booklets *Reducing your blood cholesterol* or *Medicines for the heart*.

Eat a healthy, balanced diet

Eating a healthy, balanced diet will help to protect your heart. You need to:

- cut down on saturated fats
- eat oily fish regularly
- eat plenty of fruit and vegetables each day
- cut down on salt, and
- if you drink alcohol, keep within the sensible limits.

Cut down on saturated fats

To help improve your cholesterol level and protect your heart, you need to reduce the total amount of fat you eat, replace saturated fats with unsaturated fats (monounsaturates and polyunsaturates), and cut down on foods that contain trans fats. For more information, see our booklets *Eating for your heart* and *Cut the saturated fat*.

Oily fish and omega-3 fats

Eating oily fish regularly can help to protect against coronary heart disease and also helps to improve survival after a heart attack.⁶ Oily fish provide the richest

source of a particular type of omega-3 polyunsaturated fat. Omega-3 fats are found mainly in oily fish such as herring, mackerel, pilchards, sardines, salmon, trout and fresh tuna.

Aim to eat two portions of fish a week. One of the portions should be oily fish. One portion of oily fish is 140 grams (about 5 ounces) of fish. If you have had a heart attack, you should have two or three portions of oily fish a week to help protect your heart.²

If you have recently had a heart attack and you can't or don't want to eat this much oily fish, ask your GP if you should take a supplement.

Eat plenty of fruit and vegetables

There is good evidence that eating a diet that includes a wide range of fruit and vegetables is good for your heart.⁷

Aim to eat at least five portions of a variety of fruit and vegetables a day. Different fruit and vegetables contain different combinations of vitamins and minerals, so aim to eat a variety to get the most benefit.

For more information on healthy eating, see our booklet *Eating for your heart*.

Cut down on salt

In the UK we eat much more salt than we need. **The target should be to have less than 6 grams of salt a day** (about one teaspoonful).⁸

- Cut down on processed foods that contain a lot of salt. Three-quarters of the salt we eat is 'hidden'⁸ in processed foods. Check the ingredients labels on foods to find out which have the least salt.
- Don't add salt to your food at the table.
- Cook without adding any salt. Use extra pepper, herbs, garlic, spices or lemon juice to add flavour to your food instead.

For more information, see our leaflet *Salt and your heart*.

Alcohol

Drinking more than the sensible limits can lead to high blood pressure, damage to the heart muscle, and other diseases.

If you drink alcohol, it's important to keep within the sensible limits.

Men should not regularly drink **more than 3 to 4 units of alcohol a day**.⁹

Women should not regularly drink **more than 2 to 3 units of alcohol a day**.⁹



1 unit of alcohol =
a small glass (100ml) of wine
(10% ABV [alcohol by volume])
or
half a pint (about 300ml) of
normal-strength lager, cider or beer
(for example, 3.5% ABV)
or
a pub measure (25ml) of spirits

For information on drinking alcohol in the first weeks after going home from hospital, see page 21.

Keep active

Regular physical activity helps to keep your heart healthy and can reduce the risk of having further heart problems.

Physical activity has other benefits too. It can help:¹⁰

- lower your blood pressure
- improve your cholesterol levels
- control your weight and body shape
- reduce the risk of diabetes, or help to control diabetes
- make you feel better and boost your confidence, and
- relieve stress and anxiety.

How much and what sort of activity to do

It is recommended that adults do at least 30 minutes'

moderate-intensity physical activity a day, on at least five days of the week.¹⁰

Moderate intensity means working hard enough to make you feel warm and make you breathe more heavily than normal or feel comfortably out of breath. Examples of activities recommended for the heart include walking, cycling, dancing or climbing stairs. The 30 minutes can be done all in one go, or in shorter bouts of at least 10 minutes at a time.

However, if you have recently had a heart attack, have angina or have had a coronary angioplasty or heart surgery, it is important that you start slowly, and gradually build up to this level of activity over a period of time. See page 40 for more on this. Going on a cardiac rehabilitation programme (see page 24) is a very good way of making sure that you exercise at a level that is safe for you.

Some people with a heart condition may not be able to do as much as 30 minutes a day. And some people may be limited because they have mobility problems. However, it is still important that you try to be as active as possible. Even doing a small amount of exercise is better than doing none.

Try to do something every day. Regular, moderate-intensity activity is better than occasional bursts of vigorous activity.

It is important that you talk to your cardiac rehabilitation team or your doctor or nurse about how much activity you can do and how to increase your level of activity. You can also ask them what types of activity are suitable and safe for you to do. Always check before you take up a new activity.

Warming up and cooling down

Whenever you do any exercise, start slowly for the first few minutes and build up gradually. This will prepare your muscles and heart for exercise. At the end, spend some time slowing down gradually and don't stop suddenly.

Exercises and activities to avoid

Depending on your condition, you may be advised to avoid some strenuous everyday activities, such as carrying very heavy objects or heavy DIY or gardening.

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

If you have angina

If you have angina, it is important to keep active, but it should be within your limits. Also, avoid going out in very cold, windy or very hot weather.

If, while you're exercising, you get symptoms such as angina or breathlessness, or if you think you may be about to get an episode of angina, it is important to stop and rest. Your doctor may have given you a GTN (glyceryl trinitrate) spray or tablets to carry with you. Keep the spray or tablets with you and use them as prescribed. See page 49 for what to do if you get chest pain.

Swimming

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 cardiac rehabilitation team 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. But do check with your doctor or cardiac rehabilitation team before you start swimming again.

Safety tips

- Avoid doing activity after a large meal or when it's very hot or cold or at high altitudes.
- If you are doing any activity outdoors in cold or windy weather, dress warmly with a hat or scarf. When it's hot, make sure you wear a hat and something cool, slow down your pace and make sure you keep well hydrated.
- Make sure your clothing and footwear are comfortable and fit well.
- Don't exercise if you feel unwell, and stop exercising if you get any pain, or feel dizzy or sick. If the symptoms don't go away you should call an ambulance.

For more information on physical activity for people with heart disease, see our booklet *Physical activity and your heart*.

Keep to a healthy weight and body shape

Keeping close to a healthy weight and body shape will help to keep your heart healthy. It will also help to control your blood pressure and reduce the risk of developing diabetes.

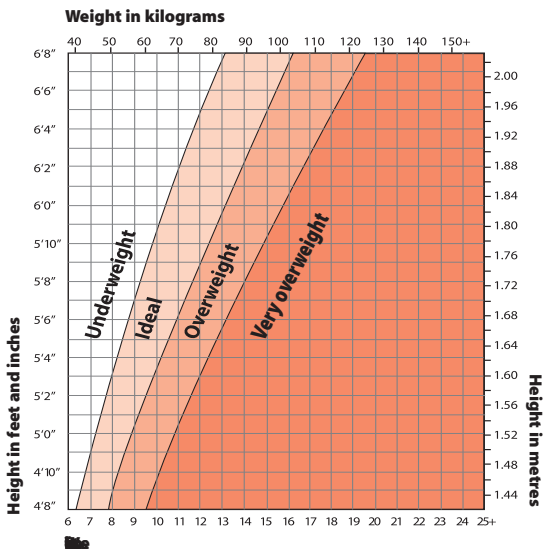
If you eat lots of foods and drinks that contain a lot of fat or sugar, or are high in calories, and if you are physically

inactive, you are more likely to put on weight.

You can use the chart below to find out if you need to lose weight. If you fall into the overweight or very overweight category in the chart, you need to lose some weight.

Are you a healthy weight?

Take a straight line up or down from your weight, and a line across from your height (without shoes). Put a mark where the two lines meet to find out if you need to lose weight. This is only an approximate guide.



Adapted from the height/weight chart by kind permission of the Food Standards Agency

Does your body shape increase your risk of coronary heart disease?

People who carry too much weight around their middle have a greater risk of developing heart problems, high blood pressure and diabetes.

One way of finding out if your body shape is increasing your risk of health problems is by measuring your waist.

	Your health is at risk if you have a waist measurement of:	Your health is at high risk if you have a waist measurement of:
Men	over 94 centimetres (about 37 inches)	over 102 centimetres (about 40 inches)
South Asian men		over 90 centimetres (about 35½ inches)
Women	over 80 centimetres (about 31½ inches)	over 88 centimetres (about 34½ inches)
South Asian women		over 80 centimetres (about 31½ inches)

If you are at risk or at high risk, it is important to make healthy lifestyle changes that will help reduce, or prevent any further increase in, your waist size and weight. This will improve your health and protect your heart.

If you need to lose weight or reduce your waist size

The best way to do this is by:

- **reducing your calorie intake** by cutting down on the amount of fat and sugar in your diet, and
- **increasing your daily physical activity.**

If you have any questions about what or how much you should be eating, ask your GP, practice nurse or cardiac rehabilitation team. If you are very overweight, you may be referred to a dietitian.

For more information on how to lose weight, see our booklets *So you want to lose weight ... for good* or *Take control of your weight*.

Control diabetes

Diabetes significantly increases the risk of developing coronary heart disease. Diabetes also increases the effect of other risk factors for coronary heart disease, such as high cholesterol levels, high blood pressure, smoking and obesity.¹¹

To reduce the risk of developing diabetes, it is important to eat a healthy, balanced diet, keep active and keep to a healthy weight and body shape.

If you have diabetes, it is very important to make sure you control your blood glucose level, blood pressure and

cholesterol level. Doing more physical activity, eating a healthy, balanced diet, and controlling your weight and body shape, will all help to control your diabetes.

For more information, see our booklet *Diabetes and your heart*.

Medicines

Medicines are an important part of your ongoing treatment which helps to protect your heart and reduce the risk of future problems.

It's important to understand what medicines your doctor has prescribed for you, what they are used for, and the possible side effects.

Occasionally, your doctor may need to change your medicines or your dose. Keep an up-to-date list of the medicines you need to take, the doses, and when and how often you need to take them.

For more information on medicines, see our booklet *Medicines for the heart*.

Reduce stress

Stressful situations can encourage people to have unhealthy lifestyle behaviours – such as overeating or smoking – which can be harmful to the heart.

If you feel stressed or anxious, it is important to identify what is causing you to feel stressed or anxious, so you can learn how to manage it effectively. Your cardiac rehabilitation team may be able to show you ways to help you manage the stress – for example, by doing physical activity, yoga or another relaxation technique. If you are not coping well with your stress or anxiety, talk to your GP who can treat you or may refer you for counselling.

For more information on how to deal with stress, see our booklet *Coping with stress*.

Heart support groups

Many people with heart conditions can benefit from meeting other people who have had similar experiences. Heart support group activities vary from group to group, and may include:

- sessions where you can talk about your own experience with other heart patients and their carers
- exercise classes
- talks by guest speakers.

The BHF has resources and holds networking events to help new and existing heart support groups. For more details, or to find out about your local support group, contact the Heart HelpLine on **0300 330 3311**.

What to do if you get chest pain

People who have not been diagnosed with heart disease and who get chest pain, 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.

What to do if someone has a heart attack or cardiac arrest

If you think someone is having a heart attack

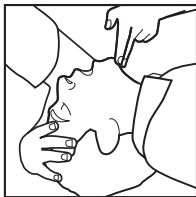
- 1 Get help immediately.
- 2 Get the person to sit in a comfortable position.
- 3 Phone 999 for an ambulance.

If the person seems to be unconscious and you think they are having a cardiac arrest

- Approach with care, making sure that you, the person and anybody nearby are safe. To find out if the person is conscious, gently shake him or her, and shout loudly, 'Are you all right?'
- If there is no response, shout for help.
- You will need to assess the casualty and take suitable action. Remember **ABC – airway, breathing, CPR.**

A Airway

Open the person's airway by tilting their head back and lifting the chin.



B Breathing

Check

Look, listen and feel for signs of normal breathing. Only do this for up to 10 seconds.

Action: Get help

If the person is unconscious, and is either not breathing or not breathing normally, phone 999 for an ambulance.



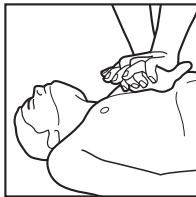
C CPR

Action: Cardiopulmonary resuscitation (CPR)

1 Chest compression

Start chest compression.

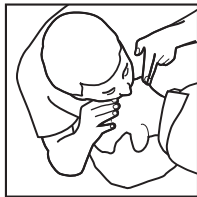
Place the heel of one hand in the centre of their chest. Place the heel of your other hand on top of your first



hand and interlock your fingers. Press down firmly and smoothly 30 times. Do this at a rate of about 100 times a minute – that's a little less than two each second.

2 Rescue breaths

After 30 compressions, open the airway again by tilting the head back and lifting the chin, and give two of your own breaths to the person. These are called rescue breaths.



To do this, pinch the person's nostrils closed using your index finger and thumb and blow into the person's mouth. Make sure that no air can leak out and that the chest rises and falls with each breath.

Then give another 30 chest compressions and then 2 rescue breaths.

3 Continue CPR

Keep doing the 30 chest compressions followed by 2 rescue breaths until:

- the casualty shows signs of life, or
- professional help arrives, or
- you become exhausted.

If you are not able, or are not willing, to give rescue breaths, give chest compressions only, as described in step 1 on page 52. Keep doing the chest compressions – at a rate of 100 times a minute – until:

- the casualty starts breathing, or
- professional help arrives, or
- you become exhausted.

Emergency life-support skills

For information about a free, two-hour course in emergency life-support skills, contact **Heartstart** 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.

For more information

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.

Genetic Information Service

0300 456 8383 (a local rate number)

For information and support on inherited heart conditions.

Booklets and DVDs

To order 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 a list of resources available from the BHF, ask for a copy of *Our 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

My progress record

This is a personal health record for people with a heart condition. You can use it to keep a record of important information, and to chart the progress you are making in tackling your risk factors for coronary heart disease. You can order a copy from the BHF (see page 55), and work through it with your health professional. A short version, *My progress card*, is also available.

Heart Matters

Heart Matters is the BHF's **free**, personalised service to help you live with a healthy heart. Join today and enjoy the benefits, including *heart matters* magazine, a Heart HelpLine and an online members' area with articles, recipes and lifestyle tips. You can join online at **bhf.org.uk/heartmatters** or call **0300 330 3300** (a local rate number).

References

- 1 British Heart Foundation. 2009. *UK Coronary Heart Disease Statistics 2009-2010*. London: British Heart Foundation.
- 2 National Institute for Health and Clinical Excellence. 2007. *Myocardial Infarction. Secondary Prevention in Primary and Secondary Care for Patients Following a Myocardial Infarction*. London: NICE.
- 3 Taylor RS, Brown A, Ebrahim S et al. 2004. Exercise-based rehabilitation for patients with coronary heart disease: systematic review and meta-analysis of randomized controlled trials. *American Journal of Medicine*; 116: 628-692.
- 4 Petersen S, Peto V. 2004. *Smoking Statistics*. London: British Heart Foundation.
- 5 British Cardiac Society, British Hypertension Society et al. 2005. Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice. *Heart*; 91: 1-52.
- 6 Food Standards Agency. *Eat Well. Be Well*. Accessed from: www.eatwell.gov.uk
- 7 Food Standards Agency. Accessed from: www.eatwell.gov.uk/healthydiet
- 8 Food Standards Agency. Accessed from: www.salt.gov.uk
- 9 Department of Health, Home Office et al. 2007. *Safe. Sensible. Social. The Next Steps in the National Alcohol Strategy*. London: Department of Health.
- 10 Department of Health. 2004. *At Least Five a Week. Evidence on the Impact of Physical Activity and its Relationship to Health. A Report from the Chief Medical Officer*. London: Department of Health.
- 11 Allender S, Peto V et al. 2008. *Coronary Heart Disease Statistics 2008*. London: British Heart Foundation.

Technical terms

aerobic exercise	Repetitive, rhythmic movement involving large muscle groups such as the legs, shoulders and arms.
angina	Heaviness or tightness in the chest, which is usually caused by coronary heart disease. Sometimes the pain may affect the arms, neck, jaw, back or stomach.
angioplasty	A treatment for coronary heart disease to help improve the supply of blood to the heart muscle.
atheroma	Fatty material within the walls of the arteries.
cholesterol	A fatty substance mainly made in the body by the liver.
coronary arteries	The arteries that supply oxygen-containing blood to the heart muscle.
coronary bypass surgery	An operation to bypass a narrowed section or sections of coronary arteries, to improve the blood supply to the heart muscle.
coronary heart disease	When the walls of the coronary arteries become narrowed by a gradual build-up of fatty material called atheroma.

diabetes	A disease caused when glucose levels in the blood are too high.
dietitian	A health professional who can advise on healthy eating, and special diets for people with food-related health problems.
GTN	Stands for 'glyceryl trinitrate'. A medicine, in spray or tablet form, used to relieve or prevent angina.
heart attack	When one of the coronary arteries becomes blocked by a blood clot and causes damage to the heart muscle.
high blood pressure	When the pressure of the blood flowing through the arteries is abnormally high.
physiotherapist	A health professional who helps people with physical movement and exercise.
saturated fat	A type of fat that comes mainly from animal sources – for example, dairy and meat products.
statin	A medicine used to reduce cholesterol levels.
unsaturated fat	A type of fat that comes mainly from plant sources and some fish sources. There are two types of unsaturated fat – polyunsaturated and monounsaturated.

Index

activity	10, 15, 25, 38
alcohol	21, 37
angina	8, 40
angioplasty	9
atheroma	8
blood pressure	10, 33
bypass surgery	9
cardiac arrest	51
carer	22
chest pain: what to do if you get chest pain	49
cholesterol	10, 34
coronary heart disease	8
diabetes	10, 45
driving	17
drugs	13, 34, 46
exercise	10, 15, 25, 38
feelings	14
healthy eating	35
heart attack	9, 15, 51
holidays	22
housework	16
insurance	18, 23
medicines	13, 34, 46
outpatient appointment	23
PPCI	10

primary angioplasty	10
rehabilitation programme	24
relaxation	29, 47
risk factors	10, 32
salt	37
sex	20
smoking	10, 32
stress	29, 46
support groups	48
swimming	41
weight	10, 42
work (returning to work)	19

Have your say

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](https://www.bhf.org.uk/contact)**. Or, write to us at the address on the back cover.

Acknowledgements

The British Heart Foundation would like to thank all the GPs, cardiologists and nurses who helped to develop the booklets in the *Heart Information Series*, and all the patients who commented on the text and design.

Particular thanks for their work on this booklet are due to:

- British Association for Cardiac Rehabilitation (BACR) Exercise Professionals Group Committee
- Janette Bowen, Clinical Lead Occupational Therapist; Jenny Matthews, Cardiac Liaison Specialist Nurse; and Paul Smith, Cardiac Specialist Nurse – Hywel Dda Health Board
- Megan Douglas, Lead Specialist Cardiac Rehabilitation Dietitian, Cwm Taf Health Board
- Sue Francombe, Lead Nurse for Cardiac Conditions, Aneurin Bevan Health Board
- Paul Greene, Dietetics; and Catrin Warren, Physiotherapist – Betsi Cadwaladr University Health Board
- Marie Hurson, Cardiac Nurse Specialist, NHS Shetland
- Steven Jarvis, Chairman, Wakefield District Healthy Heart Support Group, and BACR Instructor
- Linda Speck, Consultant Clinical Health Psychologist, Abertawe Bro Morgannwg University Health Board, and
- Annette Wilkes, Service Manager and Advanced Nurse, NHS Wakefield District.

Edited by Wordworks.

This booklet was last updated in July 2010.

Crystal
Mark
14232



Clarity approved by
Plain English Campaign

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

British Heart Foundation

Greater London House
180 Hampstead Road
London NW1 7AW
Phone: 020 7554 0000
Fax: 020 7554 0100
Website: bhf.org.uk