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Understanding **high** **cholesterol**



There are many ways to lower your cholesterol. Remember that small changes can build up to make a big difference.

In this booklet you'll find lots of tips and easy swaps, like:

As you make changes to lower your cholesterol you may want to keep track of your progress. There's space on page 61 to write down your cholesterol levels.

**Swap butter
for rapeseed or
olive oil when
cooking**

**Add a side
salad or more
vegetables to
your plate**

**Choose smaller
alcohol measures,
like a half pint or
a small glass
of wine**

**Swap some
meals with
meat for fish,
beans, lentils
or tofu**

**Walk short
journeys instead
of driving**

**If you smoke,
pick a quit date
and get friends
and family to
help you stick
to it**

**Use your
hand to
measure your
food portion
sizes**

About this booklet

If you or a loved one have been diagnosed with high cholesterol, it can be a worrying time.

This booklet is a starting point. It can help you find out:

- what it means to have high cholesterol
- how to lower your cholesterol
- where to go for extra support.

There's lots you can do to lower your cholesterol. Even taking a few tips from this booklet can help you make a positive change.



Call 0808 802 1234 (freephone)
to speak to a cardiac nurse.
Our helpline is open weekdays
9am to 5pm (excluding bank
holidays).

Contents

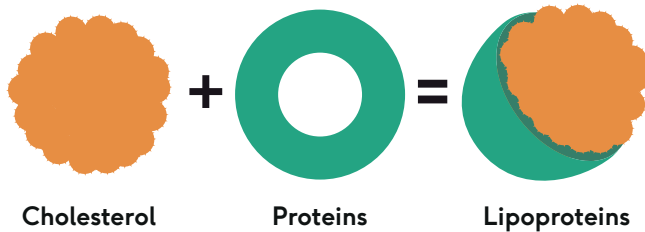
About this booklet	4
Understanding cholesterol	6
Checking your cholesterol	14
Cholesterol results explained	18
Diagnosing high cholesterol	23
Causes of high cholesterol	26
Treatment for high cholesterol	28
Treatment: medicine	29
Treatment: lifestyle changes	35
Where to get support	56
Track your cholesterol levels	61
Further information	63

What is cholesterol?

Everyone has cholesterol. It's a fatty substance in your blood that's produced naturally in your liver. The cells in your body use cholesterol to keep them healthy.

Cholesterol is carried around your body by proteins in your blood. Proteins help keep your body's tissues and organs working as they should.

When cholesterol and proteins combine, they're called lipoproteins.



What's good and bad cholesterol?

There are two main types of lipoproteins, you may hear them being called good and bad cholesterol.

- **High-density lipoprotein (HDL) cholesterol** takes cholesterol that you do not need back to your liver. The liver breaks it down and it's passed out of your body. It's known as **good cholesterol** because it helps get rid of bad cholesterol from your blood.
- **Non-high-density lipoprotein (non-HDL) cholesterol** takes cholesterol from your liver to cells around your body. It's known as **bad cholesterol** because if you have too much it gets stuck to the walls of your arteries.

Your total cholesterol is your HDL cholesterol and your non-HDL cholesterol together. For a healthy heart, the aim is to have a low non-HDL level and a higher HDL level.

This means low levels of bad cholesterol, and higher levels of good cholesterol.

Find out more

Watch our short video explaining cholesterol at bhf.org.uk/reducecholesterol

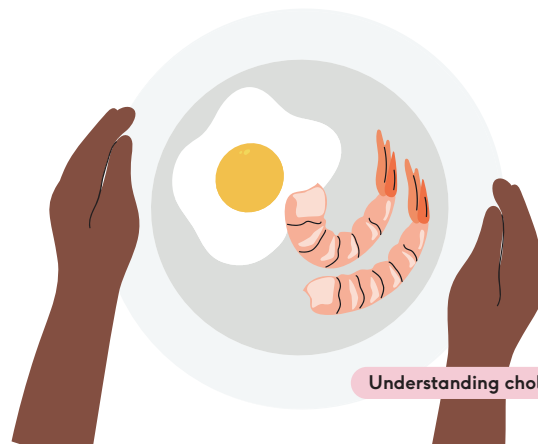
You can also understand more about cholesterol by listening to our audio at bhf.org.uk/cholesterol

What is dietary cholesterol?

Some foods naturally contain cholesterol, such as eggs, liver, kidney and shellfish, like prawns. This is called dietary cholesterol.

For most people, dietary cholesterol does not have much effect on your cholesterol levels. You can eat foods containing cholesterol as part of a healthy diet.

It's much more important to reduce the amount of saturated fat you eat (see page 38). Saturated fats can reduce the liver's ability to remove cholesterol, so it builds up in your blood.



What is high cholesterol?

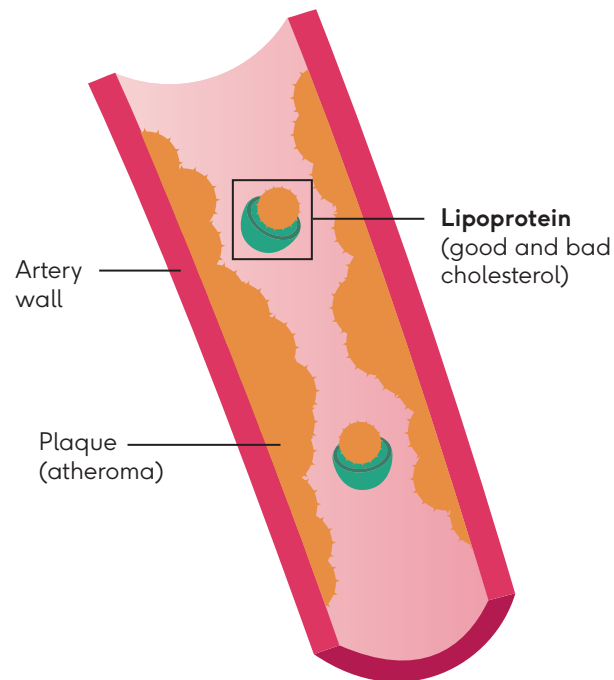
High cholesterol means you have too much cholesterol in your blood.

When people talk about having high cholesterol, it means they have high levels of bad (non-HDL) cholesterol.

You can find more information on high cholesterol on our website:
bhf.org.uk/cholesterol

You can also listen to our high cholesterol information, or find it in another language at **bhf.org.uk/infoforall**

Inside your arteries



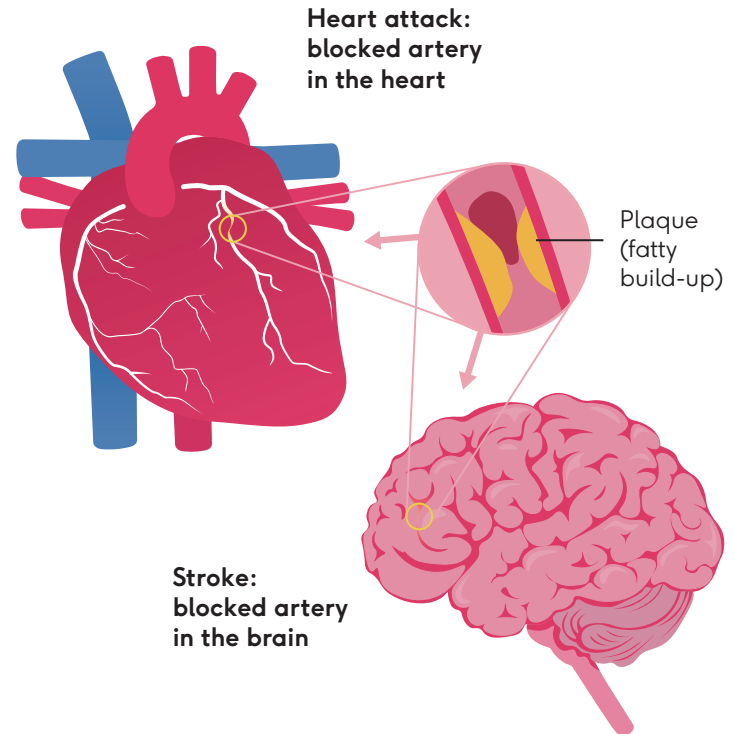
Why is high cholesterol bad for your health?

Having too much bad (non-HDL) cholesterol can cause problems.

If you have more bad cholesterol in your blood than you need, it gets stuck to the walls of your arteries. This build up is called plaque (atheroma) and it makes it harder for blood to flow through.

The plaque can narrow your arteries, and they can become blocked. Both can lead to a heart attack.

If this happens in the arteries that carry blood to your brain it can lead to a stroke.



How do I know if I have high cholesterol?

Most people with high cholesterol have no symptoms.

It's a hidden risk factor, meaning it can happen without you knowing. That is why it's so important to get your cholesterol levels checked (see page 15).

Most people find out after having a routine blood test for a health check.

If you're over 40 you can try this tool to find out your heart age. It will give you an idea of what your heart age might be and how to improve it.

Find out your heart age at
bhf.org.uk/heartage

Where can I get my cholesterol checked?

You can get your cholesterol checked at:

- your GP practice
- some pharmacies, using a finger-prick test.

Adults in England should be offered a free NHS health check when they turn 40.

The rest of the UK may also have similar schemes. Ask your GP or pharmacist for more information.

How is cholesterol measured?

Your cholesterol is measured using a blood test. It's sometimes called a lipid profile.

The blood test will measure your:

- levels of good cholesterol (HDL)
- levels of bad cholesterol (non-HDL)
- cholesterol ratio
- triglycerides
- total cholesterol.

Triglycerides are a type of fat in your blood that can also build up in your arteries. Your doctor can tell you more about this, and what to do if your triglyceride levels are high.

You may also be tested for low-density lipoprotein (LDL) cholesterol, another type of 'bad' cholesterol. Your doctor will ask for this to help them make decisions about your treatment.

You can eat and drink normally before your test unless your doctor asks you not to.

You can find out more about this test at **bhf.org.uk/cholesterollevels**

What do my results mean?

- **Total cholesterol (TC or serum cholesterol)** shows the total level of cholesterol.
- **HDL cholesterol** shows the level of good cholesterol.
- **Total cholesterol to HDL cholesterol ratio** shows how much good cholesterol (HDL) you have compared to your total cholesterol level. It should be as low as possible.
- **LDL cholesterol** shows the level of one type of bad cholesterol. You'll need to avoid eating for several hours before this test.
- **Fasting triglycerides** show the amount of triglyceride you have in your blood after not eating for 10 to 14 hours.
- **Non-fasting triglycerides** show the amount of triglyceride you have in your blood when you eat and drink normally.

What should my cholesterol level be?

For a healthy heart, the aim is to have a low bad cholesterol level and a higher good cholesterol level. A high level of good cholesterol can help keep bad cholesterol in check.

This information is just a guide. Talk to your doctor about your individual risk and the levels you should aim for.

Result	Levels (mmol/L)	
	Men	Women
Total cholesterol (TC)	Below 5 mmol/L	Below 5 mmol/L
Good cholesterol (HDL)	Above 1 mmol/L	Above 1.2 mmol/L
Bad cholesterol (non-HDL)	Below 4 mmol/L	Below 4 mmol/L
Fasting triglycerides	Below 1.7 mmol/L	Below 1.7 mmol/L
Non-fasting triglycerides	Below 2.3 mmol/L	Below 2.3 mmol/L
LDL cholesterol	Below 3 mmol/L	Below 3 mmol/L



If you've already had a heart attack or a stroke your recommended levels of cholesterol and triglycerides may be lower.

Cholesterol levels after a heart attack or stroke

Total cholesterol (TC)	Below 4 mmol/L
Non-HDL cholesterol	Below 2.6 mmol/L, or 40% below your first test result
LDL cholesterol	Below 2 mmol/L

On page 61 you'll find a blank table where you can keep track of your cholesterol levels. Or you can use it to write down the levels your doctor says you should be aiming for.

Find out more about cholesterol levels on our website: bhf.org.uk/cholesterollevels

What happens with my results?

Your doctor will use your cholesterol levels along with other factors, such as your age, blood pressure and other health conditions, to work out your risk of cardiovascular disease.

Your cardiovascular risk means how likely it is that you'll have a heart condition, or a heart attack or stroke in the future.

They may give you a score (called a QRISK score). This estimates how likely you are to have a heart or circulation problem over the next 10 years.

What's primary and secondary prevention?

Your doctor may use the words primary or secondary prevention.

Primary prevention is managing your cholesterol and heart health to prevent you having a heart attack or stroke in the future.

Secondary prevention is managing your cholesterol and heart health after you've had a heart attack or stroke, to prevent you having another one.

What happens if I'm diagnosed with high cholesterol?

If your doctor diagnoses you with high cholesterol, they'll work out a treatment plan with you.

This will include lifestyle information, such as diet and exercise (see page 35).

You may also be offered medicine to help lower your cholesterol (see page 28).

You should have an appointment once a year to check your cholesterol levels.

If you have questions before your next appointment, speak to a pharmacist or call our Heart Helpline to speak to one of our cardiac nurses (see page 25).

Contact your doctor if you're not sure when your next appointment is.

What if there are delays seeing my doctor?

You might find there are delays getting an appointment to see your doctor.

Waiting for an appointment can be a worrying time, but there are places you can go.

You can speak to a pharmacist or call **NHS 111** if you have questions or any concerns.

You can also call the Heart Helpline to talk to our cardiac nurses.



Call 0808 802 1234 (freephone) to speak to a cardiac nurse. Our helpline is open weekdays 9am to 5pm (excluding bank holidays).

What causes high cholesterol?

Anyone can get high cholesterol and it can be caused by many different things.

Some things we can control like lifestyle habits, others we cannot. If you take care of the things you can control, you'll help lower your risk of heart and circulatory disease.

Transgender people

Research shows transgender (trans) people may be more likely to have high cholesterol, but the reason is not clear. Speak to your GP if you're worried about your risk of high cholesterol.

Find out more about your risk at bhf.org.uk/transheartrisk

Things you can control:



eating a lot of saturated fats



not being active enough



smoking



having excess weight, especially around your middle

Things you cannot control:



getting older



having Black African, African Caribbean or South Asian heritage



family history

How is high cholesterol treated?

High cholesterol can be treated with:

- healthy lifestyle changes (see page 35)
- medicine.

Your doctor may recommend you make lifestyle changes first to see if this helps.

Medicine

Medicine can help to:

- ✓ reduce your cholesterol
- ✓ reduce your risk of a heart attack or stroke.

If your doctor recommends medicine, they will usually give you a statin. Sometimes other medicines can be prescribed, but this is usually by a specialist. Speak to your doctor if you have concerns.

It's hard to take medicine when you feel healthy. But statins are a preventative medicine, meaning they help protect your health in the future.

Many people can make healthy lifestyle changes to reduce their cholesterol. You may need to take medicine at the start to treat your high cholesterol, but you may not need to take it forever.

Questions about statins?

Get answers to common questions about statins at
bhf.org.uk/statins

Can I stop taking medicine once my cholesterol is lower?

If your doctor recommends medicine to lower your cholesterol, there's a chance you may need to take it for the rest of your life.

It can be difficult to understand why you need to continue taking your medicine once your cholesterol is lower. It may feel like the medicine has done its job. However, once you stop taking it your cholesterol will usually go up again.

It's important to keep taking your medicine even if you feel well. This is because it helps to reduce your cholesterol and your risk of a heart attack or stroke.

Many people find it hard to take medicine every day. But there are simple steps to make it easier:



Get into a routine



Give your body time to get used to medicine



Be mindful of your mental wellbeing



Speak to your pharmacist or GP before taking other medicines or supplements as they can interact with your medicine



Plan your medicine if you go away

What can I do about side effects?

Most people taking medicine for high cholesterol do not experience any side effects. However, for some people side effects can have a big impact on their daily life.

Side effects can be caused by your medicine but could also be caused by other things, such as stress, tiredness, or a change in your lifestyle.

It's worth bearing in mind that symptoms with any medicine may improve over time or even disappear.

It's important to keep taking your medicine. Speak to your doctor before you stop taking any prescribed medicine.

Speak to your GP or a pharmacist. They can:

- find out if your medicine is causing the side effects
- help you manage side effects
- change the dose of your medicine if appropriate
- prescribe a different type of medicine
- recommend an alternative treatment.

If you're worried about side effects talk to one of our cardiac nurses.



**Call 0808 802 1234 (freephone)
to speak to a cardiac nurse.
Our helpline is open weekdays
9am to 5pm (excluding bank
holidays).**

Statins and side effects

You may feel nervous about taking statins and worry about potential side effects.

Statins are one of the most researched medicines and there's lots of reliable evidence showing they're very safe and effective to take.

Read about our research at:
bhf.org.uk/cholesterol-research

Get answers to your top questions on statins at **bhf.org.uk/statins**

You're not alone

Find support from other people in our online community, Health Unlocked. Find out more at **bhf.org.uk/support**

You can find inspiring stories and helpful tips on lowering cholesterol at **bhf.org.uk/heartmattersmag**

Lifestyle changes

There are lots of small changes you can start making today to lower your cholesterol.

You could pick one swap from each of the following sections or commit to making one swap a week. Remember that small changes build up to make a big difference.

Give yourself time, by making lots of smaller changes you're more likely to stick to them.



Healthier swaps

Eating more fruit and vegetables and cutting back on food and drink that's high in saturated fat, sugar and salt can help lower your cholesterol.

Try these simple food swaps:

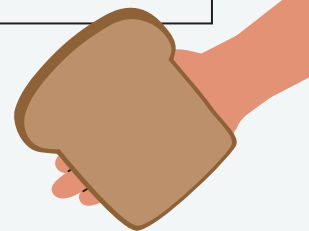
- ✓ swap butter for spreads made from olive, rapeseed or sunflower oils
- ✓ eat wholemeal instead of white bread
- ✓ make sauces from scratch rather than buying ready-made
- ✓ eat more fish and less red meat.



A good starting point for eating healthier is to look at how you cook your food. Try grilling, boiling or baking your food instead of frying it, to use less oil.

Want more healthy swaps?

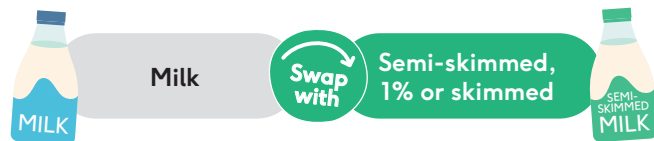
We have lots of food swaps, including healthier takeaway orders, in our **Eat better** booklet. Order or read it online at bhf.org.uk/eatbetter-booklet



Watch out for saturated fat

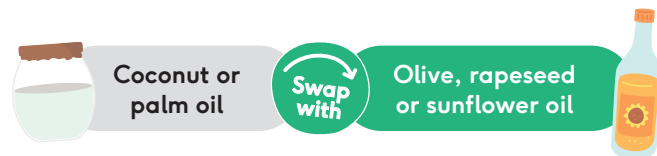
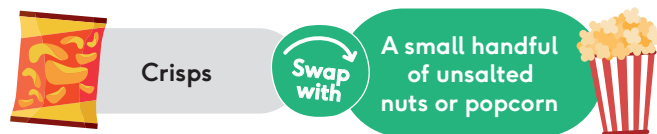
Looking out for foods high in saturated fat can help you to make healthier food choices and reduce your cholesterol.

Swap foods high in saturated fats for lower ones:



Need inspiration?

You can find tasty recipes that are low in saturated fat on our website:
bhf.org.uk/heart-healthy-recipes



Look at food labels

It can also help to look at the labels on the food you buy. If you have high cholesterol, it's especially important to check the label for saturates.

Most packets of food have colour coded labels. A good rule is to try to eat foods with mostly green and amber labels.

	Low	Medium	High
Fat	3g or less	3.1 to 17.5g	More than 17.5g
Saturated fat	1.5g or less	1.6 to 5g	More than 5g

Figures per 100g

It's recommended that women have no more than 20g of saturated fat per day, and men have no more than 30g of saturated fat.

“

I bought a healthy eating for low cholesterol book and look on the BHF website for recipes. When I go shopping, I check the labels for foods low in saturated fats.

Courtney

Eat more fibre

Eating fibre (a carbohydrate from plants) can be good for your gut and help lower your cholesterol. Fibre helps reduce the amount of cholesterol that is absorbed into your blood.

Foods high in fibre:

- oats
- barley
- pulses, like peas, chickpeas and lentils
- wholegrains
- fruit and vegetables.

Many of us do not have enough fibre in our diet. To have more, you could try:

- ✓ swapping white rice for brown rice
- ✓ blending oats to use instead of maize
- ✓ adding lentils and chickpeas to your food, like a curry or soup
- ✓ having wholegrain bread
- ✓ starting your day with a high fibre cereal, porridge oats and fresh fruit.

Find out how much fibre you should be eating at **bhf.org.uk/fibre**



Move more

Lots of activities can get you moving, like walking, playing with kids or grandkids, gardening, or housework.

To look after your heart, you should aim to be active every day. Adults should try to do 150 minutes a week (around 20 to 30 minutes of exercise a day).

There are lots of ways to build exercise into your day.

- ✓ Get off the bus one stop early and walk the rest of the way.
- ✓ Walk to and from the station or school run instead of driving.



- ✓ Get into a routine of walking each day, like at lunchtime.
- ✓ Try a new hobby or class, like gardening, yoga or park run.
- ✓ Make exercise social, you could go walking with a friend.
- ✓ If you can, use the stairs instead of a lift.
- ✓ Try exercises while sitting or use a chair for support.



Many people find that exercise is a great way to meet new people, catch up with friends or have time to themselves. It can give you a break from your busy day.

The NHS has exercises for all abilities, search **[nhs.uk/live-well/exercise](https://www.nhs.uk/live-well/exercise)**

You'll also find lots of tips and tricks for getting active at **[bhf.org.uk/activity](https://www.bhf.org.uk/activity)**

I'm finding it hard to move more

Starting small and building up your exercise can help it feel more manageable.

If you're not sure where to start, or you're finding exercise difficult, talk to your GP. They may be able to recommend local exercise schemes.

“

When out and about I will take the stairs instead of the escalator. Over time you get fitter and healthier and getting up the stairs gets easier.

Courtney

Drink less alcohol

Cutting down on the alcohol you drink can help maintain a healthy weight, improve your sleep and help protect your heart.

Adults should aim to have no more than 14 units a week. That's about:



Drinking can be a big part of socialising, or your weekly routine. But there are ways to make easy, manageable swaps to cut down.

Try having:

- ✓ a half pint instead of a pint
- ✓ a small glass of wine instead of a large glass
- ✓ a small wine spritzer (with soda water) instead of a large glass of wine
- ✓ a single measure of spirits with diet mixer instead of a double
- ✓ alcohol-free and low-alcohol beers, wine or spirits.

For more tips on healthier drinking choices, order or read our **Eat better** booklet at bhf.org.uk/eatbetter-booklet

Stop smoking

It's never too late to quit. There are lots of benefits to not smoking, like:



having more energy



breathing easier



improved fitness



better sense of smell and taste



reduced risk of a heart attack or stroke

After one year of quitting smoking, your risk of having a heart attack is half that of a smoker.

You can find lots of support and information to help you quit online. You may find these tips helpful.

- ✓ Set a quit date and tell your friends and family to help you stick to it.
- ✓ Think about healthy ways to manage cravings, like healthier snacks or habits.
- ✓ Use the money you save by not buying cigarettes to get yourself a reward at milestones.

Do not be afraid to ask for help. Speak to your GP or local pharmacy for help to stop smoking.

The NHS has a free stop smoking service to help you boost your chances of quitting. Search '**NHS stop smoking**'.

Find ways to help with stress

It might feel more difficult to manage stress. But there are lots of ways to reduce stress and feel more relaxed. You could:



try relaxing exercises,
like yoga or meditation



download an app to help
manage stress or listen
to music and podcasts



spend time with family,
friends or pets



practice breathing exercises,
find out more at [bhf.org.uk/
breathing-exercises](https://www.bhf.org.uk/breathing-exercises)

“

I like to drift off [to
sleep] reading a
book or listening
to an audiobook.
Meditating every
morning and
evening also helps
me stay calm.

Sarah

I need more support

If you feel anxious and sad a lot of the time, and it's affecting your daily life, talk to your GP. Do not be afraid to ask for help. Sometimes you need to put yourself first.

You can also refer yourself to the NHS for talking therapies, like cognitive behavioural therapy (CBT) or counselling. Search '**NHS talking therapies**' for more information.

You can also get in touch with Mind, a charity offering support to anyone affected by their mental health. Visit **mind.org.uk**

Maintain a healthy weight

We know how hard it can be to lose weight and stick to new lifestyle changes. Many of the tips in this booklet will help to manage your weight and look after your heart.

Being a healthy weight is about watching your portion sizes, swapping some unhealthy foods or snacks for healthier ones, avoiding packaged foods labelled in red, and being physically active.

Whatever your reasons are for wanting to lose weight, now is a great time to start. We're here to help and support you every step of the way. Visit **bhf.org.uk/myweight**

What should I do if my cholesterol is still high?

Your doctor should give you information about follow-up appointments and when to get your cholesterol checked.

If you've been making healthier swaps and your cholesterol is still high, your doctor may recommend you try medicine as well. For people already taking medicine, your doctor may change the type of medicine or dose.

You should see your doctor regularly until your cholesterol is at a healthy or controlled level. Talk to them if you've been diagnosed with high cholesterol and do not have a follow-up appointment.

You can also call our Heart Helpline to talk to our cardiac nurses (see page 58).

Support

It may feel overwhelming to be told you have high cholesterol. In some communities it can also be more difficult to talk about.

You may not know where to start, but small changes can make a big difference. In time you'll feel more confident in managing your health.

British Heart Foundation (BHF)

BHF can help you find more information on looking after your heart. Including simple food swaps and manageable changes for you and your family.

Call the Heart Helpline

If you're not sure where to go next, our cardiac nurses can help you with your questions or concerns.

Call **0808 802 1234** (freephone) or email **hearthelpline@bhf.org.uk** Our helpline is open weekdays, 9am to 5pm (excluding bank holidays).

You can also speak to our nurses using the live chat feature. Find out more at **bhf.org.uk/helpline**

Join Heart Matters

Discover the benefits of Heart Matters, your free heart-health membership.

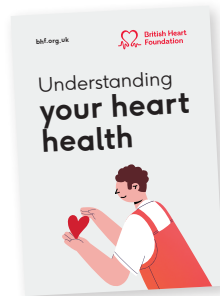
Join to receive our free magazine or email newsletter, featuring expert tips, heart-healthy recipes, inspiring stories, and the latest updates backed by BHF-funded science.

Guided by our team of experts, Heart Matters helps you to make small changes for a healthier heart.

bhf.org.uk/heartmatters

Read our trusted information

We have lots of information about looking after your heart. You can read and order our booklets for free at **bhf.org.uk/publications**



Find helpful tips and easy swaps for a healthier heart in our booklet **Understanding your heart health**.

If you've been diagnosed with high cholesterol you may also have been diagnosed with high blood pressure.



Read or order our
Understanding high blood pressure booklet or visit
bhf.org.uk/bloodpressure

We also have information on high cholesterol and high blood pressure in audio format and other languages.

Read or listen to our information online
bhf.org.uk/infoforall



Track your cholesterol

[illegible]

Cut out
and keep

[illegible]

We are British Heart Foundation



Through research, information and support we're here for everyone affected by heart and circulatory conditions.

Get help

Speak to one of our experienced cardiac nurses for more information and support. They can help answer your questions, big or small.

You can call **0808 802 1234** (freephone).
Our helpline is open weekdays, 9am to 5pm (excluding bank holidays).

Support our work

If you've found this information helpful and would like to support our work, please scan the QR code or visit **bhf.org.uk/support-us**



Scan here with
the camera
on your phone

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