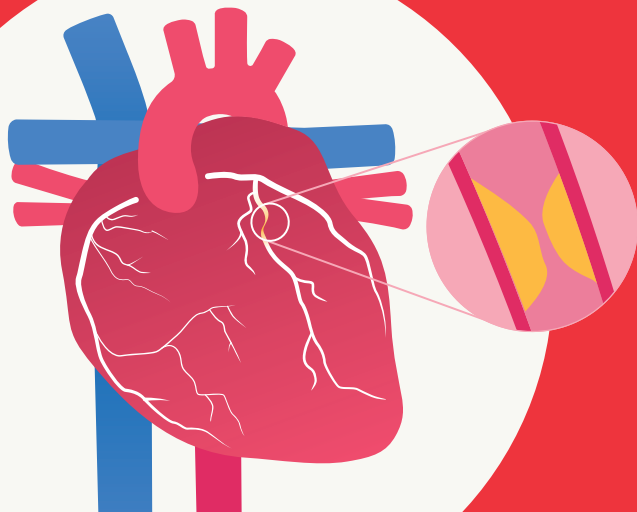


bhf.org.uk



British Heart
Foundation

Understanding **angina**



Symptoms of angina

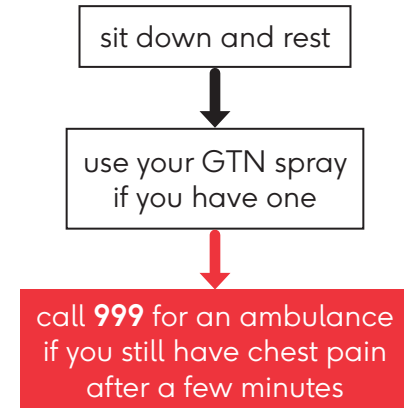
Angina can feel different for everyone.
It can feel like:

- pressure
- tightness
- squeezing
- pain
- a dull ache.

You'll usually feel angina in your chest.

When to get help

If you have chest pain:



Symptoms of angina can feel similar to symptoms of a heart attack. It can be difficult to know when to get help.

If you're unsure, call 999 for an ambulance.

About this booklet

If you or a loved one have a diagnosis of angina, it can be a worrying time. We have written this booklet to help answer some of your questions about:

- what it all means
- the tests and treatments for angina
- how to look after your heart health in the future.

It can feel overwhelming when you're diagnosed and there's a lot of information to take in. Please use this booklet as and when you need it. You do not have to read it all at once.



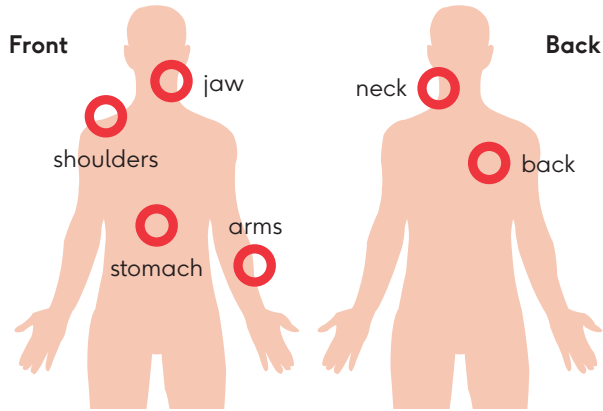
Call 0808 802 1234 (freephone)
to speak to a nurse.
Our helpline is open weekdays
9am to 5pm (excluding bank
holidays).

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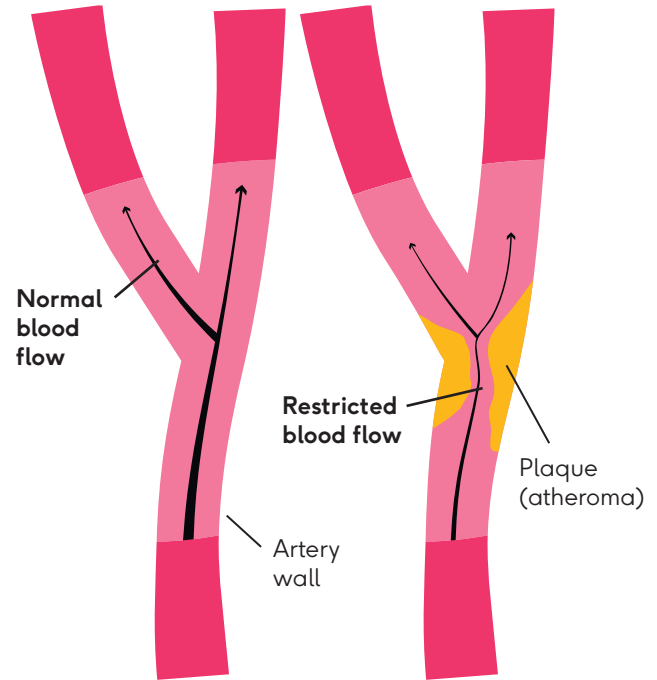
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What is angina?

Angina is the name for chest pain or an uncomfortable feeling that happens when blood flow to your heart muscle is reduced. You might also feel pain or an uncomfortable feeling in your:



Angina is known as a symptom because it can be a sign of a heart problem, like coronary heart disease (see page 8).

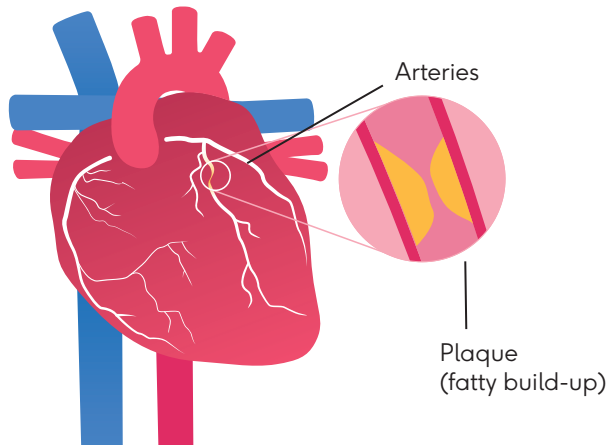


**Blood flow inside
the coronary arteries**

With treatment and healthy lifestyle changes, it's possible to manage angina and reduce the risk of more serious problems like a heart attack or stroke.

What causes angina?

The most common cause of angina is coronary heart disease (CHD). This is when the arteries that supply your heart muscle with blood and oxygen are narrowed by a fatty substance called plaque (atheroma).



Your risk of developing coronary heart disease is increased by:

- smoking
- diabetes
- high cholesterol
- high blood pressure (hypertension)
- having excess weight or obesity
- having a family history of CHD
- age (the older you are, the more likely you are to get CHD).

You can find more information on reducing your risk of developing coronary heart disease on our website: **bhf.org.uk/riskfactors**

What are the different types of angina?

The main types of angina are:

- stable
- unstable
- vasospastic
- microvascular
- refractory.

Stable angina

Pain or an uncomfortable feeling that usually happens after certain activities, like when your heart is working harder during exercise.

It usually lasts five minutes or less and gets better, or goes away, if you rest or take medicine.

Unstable angina

Pain or an uncomfortable feeling that can happen even when you're resting. It's not always caused by certain activities.

The pain lasts longer and can feel more severe, and you might not feel better when you rest or take medicine.

Stable angina can become unstable.

If you're having pain or an uncomfortable feeling more than usual or when resting, speak to your doctor as soon as you can.

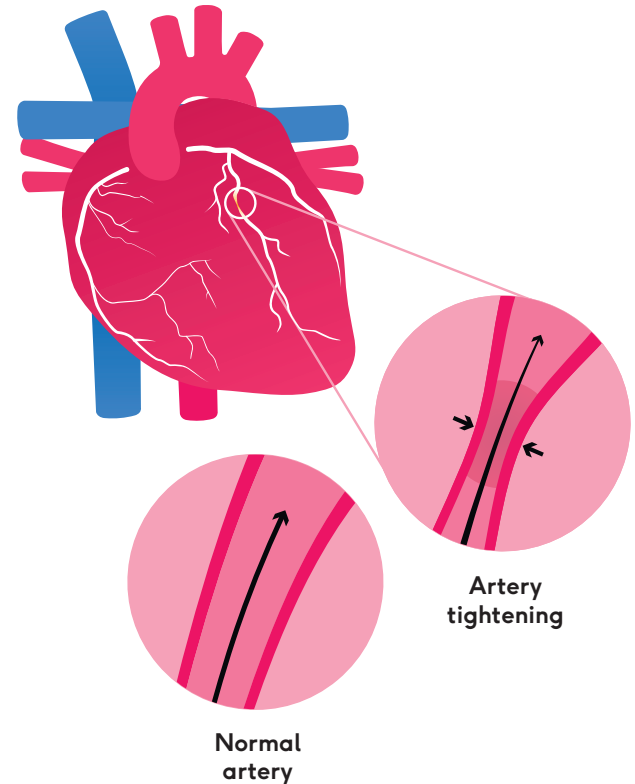
Vasospastic angina

Pain or an uncomfortable feeling caused by a coronary artery going into spasm (a sudden tightening). When the artery tightens, less blood and oxygen can get to your heart muscle. It usually happens in the larger blood vessels of your heart.

It can happen during the day, but many people feel pain in the early morning or during the night when resting.

It's also known as:

- coronary artery spasm
- Prinzmetal's angina.



Microvascular angina

Pain or an uncomfortable feeling caused by spasms (tightening) in the smaller coronary arteries. It's also known as cardiac syndrome X.

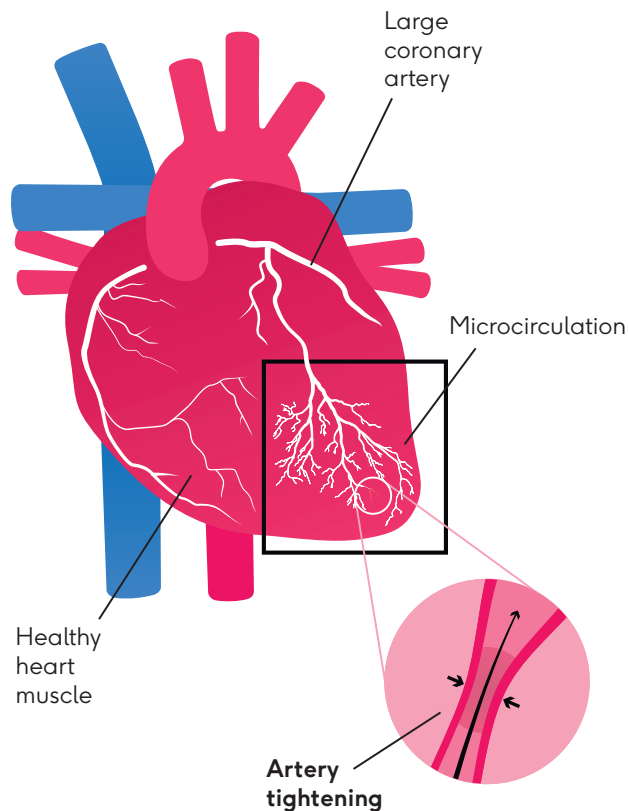
It usually happens when you're:

- exercising
- feeling stressed
- feeling anxious.

It can also happen when you're resting.

Microvascular angina can affect men and women, but it's more common in women going through the menopause and after.

Find more information on the menopause and your heart at [bhf.org.uk/menopause](https://www.bhf.org.uk/menopause)



Vasospastic angina and microvascular angina are types of angina with no blockages in your coronary arteries. This means that there's not enough blood getting to your heart, but it's not caused by plaque (atheroma) in your arteries.

You may hear these types of angina called non-obstructive coronary artery disease (NOCAD) or ischaemia with non-obstructive coronary arteries (INOCA).

You may also hear about myocardial infarction with non-obstructive coronary arteries (MINOCA). This means you've had a heart attack, but it was not caused by blockages in your coronary arteries.

You can find more information about the different types of angina at **bhf.org.uk/artery-spasm**

Refractory angina

Pain or an uncomfortable feeling that continues after having treatment, such as medicine, coronary stents or coronary artery bypass surgery.

What type of angina do I have?

If you're not sure which type of angina you have, speak to your doctor who can explain it to you.

What does angina feel like?

Angina can feel different for everyone. It usually feels like pressure, tightness or squeezing. This can feel painful or like a dull ache.

You'll usually feel angina in your chest, but you can also feel it in your:

- jaw
- shoulders
- arms
- stomach
- neck
- back.

You may also feel:

- tired
- dizzy
- sweaty
- sick
- breathless.

These feelings may be called angina symptoms, attacks, episodes or pain.

Both men and women can experience the same feelings of angina. But women (who were assigned female sex at birth) are more likely than men to:

- feel sick, sweaty, dizzy and breathless
- have spasms in the smallest coronary arteries (microvascular angina), see page 14.

Visit **bhf.org.uk/biasandbiology** for more information on women and heart disease.

How will I know if the pain is angina?

Angina may happen during or shortly after certain activities.

- **Physical activity** because your heart needs to pump harder to keep up with what you're doing.
- **Emotional stress** because it can trigger a rush of hormones that can narrow the arteries.
- **Cold weather** because it takes away your body heat so your heart needs to work harder.
- **Eating a heavy meal** because you need more blood to go to your digestive system.

Chest pain or discomfort can be caused by other things, like:

- inflammation of your ribs (costochondritis)
- injury to your chest
- indigestion that comes on after a heavy or spicy meal
- panic attacks or anxiety.

When should I ask for medical help?

It can be difficult to know when to get help, especially when you're first diagnosed with angina.

Call 999 if chest pain comes on suddenly and does not stop after a few minutes of rest, because you could be having a heart attack.

If you have used your GTN spray (see page 36) and still have chest pain after a few minutes, call 999.

If you have chest pain that stops after a few minutes of rest, and you have not been diagnosed with angina, get an urgent GP appointment. They can check if it's a heart problem and refer you to a hospital for tests if needed.

It's important to get help to make sure it's not something more serious, and to help you manage your symptoms.

Speak to your doctor or nurse if you feel like you need more support with your angina pain.

How is angina diagnosed?

If you see a GP, they may ask about:

- your symptoms
- what you were doing when the symptoms started
- your lifestyle, such as your diet and if you smoke or drink
- your family medical history.

To help your doctor diagnose your pain, keep a record of:

- when and where you have pain
- what it feels like
- how long it lasts
- if anything made it feel better or worse.

They may also do some health checks including:

- measuring your blood pressure
- calculating your body mass index (BMI)
- measuring your waist size
- blood tests, including checking your cholesterol (blood fat) levels.

Your GP may send you to hospital for some tests including:

- electrocardiogram (ECG) to measure the electrical activity of your heart
- coronary angiogram to look at your coronary arteries
- echocardiogram to get a detailed picture of the inside of your heart
- an exercise ECG (exercise stress test) or MRI stress test
- blood tests.

bhf.org.uk/tests

What if I have to wait for a referral appointment?

It can take a while to get a hospital appointment, possibly weeks or months. It can also take up to a few weeks to get your test results.

Many people feel worried or anxious during this time. There is no right or wrong way to deal with these feelings and everyone is different.

Continuing with everyday activities, such as going to work if you're able or spending time with loved ones or pets, can be a welcome distraction. You may find it helpful to talk with your partner, family or a close friend.

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).

How do I come to terms with my diagnosis?

Many people have good days and bad days following a diagnosis. It can be stressful and it's normal to feel anxious or sad. Having angina pain can also be scary and you might worry about it happening again.

It's important to remember that taking your medicine and making lifestyle changes gives you the best chance of living well with angina.

Find more information on treating angina on page 33 and healthy lifestyle changes on page 54.

If you're feeling anxious, sad or overwhelmed and it's affecting your quality of life, talk to your GP.

You can also refer yourself to the NHS for talking therapies, such as cognitive behavioural therapy (CBT) and counselling. Search '**NHS talking therapies.**'

Find more information on mental health support at **mind.org.uk** or call Mind on **0300 123 3393** (Monday to Friday, 9am to 6pm).

British Heart Foundation can also support you:

Call the Heart Helpline

If you or your family are affected by a heart or circulatory condition, our cardiac nurses can help you with your questions and 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 our online community

It can help to speak to other people going through a similar experience. Many people find joining angina Facebook groups

helpful, or you could try joining our online community, HealthUnlocked.

bhf.org.uk/support

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**

Being diagnosed with angina can also affect your loved ones. Our support services can also help them understand your condition, find answers and support you.

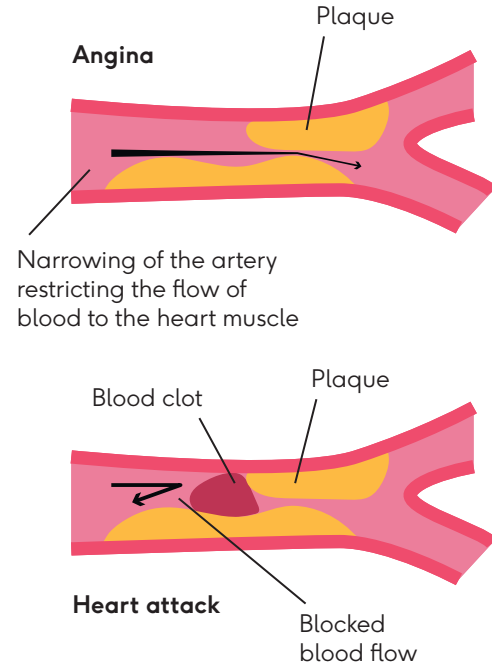
How serious is angina?

Angina is not usually life-threatening, but it's a sign you could be at risk of a heart attack. This is because not enough blood is getting to your heart muscle.

The most common cause of angina is when the coronary arteries become narrowed by a gradual build-up of fatty deposits called plaque. If a piece of plaque breaks off, a blood clot forms to try and repair the damage to the artery wall. This clot can block the coronary artery, causing the heart muscle to be starved of blood and oxygen. This is a heart attack.

You could also be at risk of a stroke. A stroke can happen when the blood supply to part of the brain is cut off.

If you're worried about your risk of a heart attack or stroke, speak to your doctor. They can work out your individual risk and answer any questions or concerns you might have.



Can angina be cured?

Angina is a symptom, not a disease. It's usually caused by a heart condition, such as coronary heart disease. This means you could continue to have symptoms, depending on the treatment you have for your condition and how effective it is.

However, there's a lot you can do to help stop angina getting worse, and to reduce your risk of having a heart attack.

This includes:



taking
medicines



surgery
and other
procedures



making
healthy
lifestyle
changes

What's the treatment for angina?

Most people with angina need to take medicines every day. Surgery or other procedures, such as a stent, may be recommended if medicines are not helping. It's important to make healthy lifestyle changes too.

Treatment for angina helps to manage pain or any uncomfortable feelings and reduce the risk of a heart attack or stroke.

Medicines

You may need to take a combination of medicines every day. Angina medicines are used to:

- relieve pain or any uncomfortable feelings
- help stop pain or any uncomfortable feelings coming on
- reduce the risk of a heart attack.

Not everyone who has angina will be prescribed the same medicines. Your doctor will talk to you about the best option for you.

Although it can be difficult to take medicine every day, they help you to feel well enough to do the things you enjoy. Knowing you have medicine to ease pain can help you feel less worried.

Many people find getting into a daily routine and setting reminders on your phone can help make it easier. Read our information on taking medicine at **bhf.org.uk/medication**

It's important to take medicine that's been prescribed even if you feel well. If you have questions about your medicine, speak to your doctor or a pharmacist.

What is glyceryl trinitrate (GTN)?

Glyceryl trinitrate (GTN) is a medicine for when you have angina pain. It can be used for fast relief of pain or to stop pain from starting.

GTN works by relaxing the walls of your blood vessels, so they become wider. This means more blood can flow through to your heart muscle, easing pain or any uncomfortable feelings.

GTN comes as:



mouth
spray



tablets that
melt under
your tongue



a skin
patch

How do I use GTN spray?

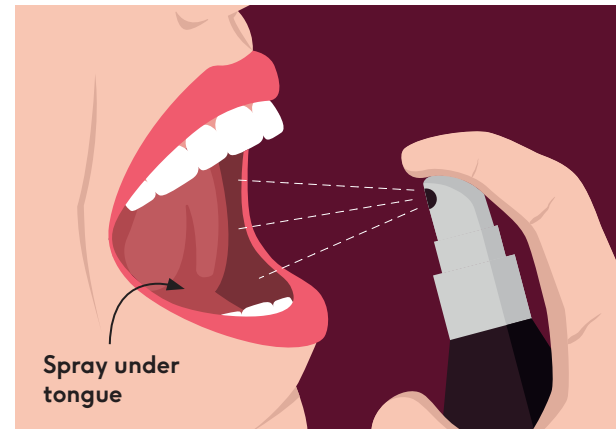
It's a good idea to learn how to use your GTN spray as soon as you get it because you might need to use it in a hurry. Before using the spray for the first time, check it's working. Press the button at the top of the bottle a few times until a fine mist comes out. Do a test spray onto a tissue so you know how it works.

If you need to use GTN spray:

- Stop what you're doing and rest.
- If you have not used your spray for over a week, spray once into the air before you use it.
- Hold the spray in front of your mouth and take a deep breath in.
- Open your mouth and lift your tongue up.
- Spray under your tongue by pressing firmly and do not breathe in while you spray.
- Close your mouth immediately.

- Breathe through your nose and keep your mouth closed.
- Rest for a while, then stand up slowly.
- Take another dose after five minutes if the first one does not help.

Call 999 for an ambulance if you still have symptoms five minutes after taking the second dose.



Keep your spray with you all the time, so you can use it if you feel chest pain.

If you use your GTN too often for a long period of time, it can make the medicine less effective. This means it may not stop pain or the uncomfortable feeling as well. If you find that your spray is not working as well, speak to your GP.

Make sure you check the expiry dates of your medicines. A GTN spray can last up to three years.

Tips for using your GTN spray:

- keep two sprays
- keep a spare spray in your bag, car or at work
- check the expiry date.

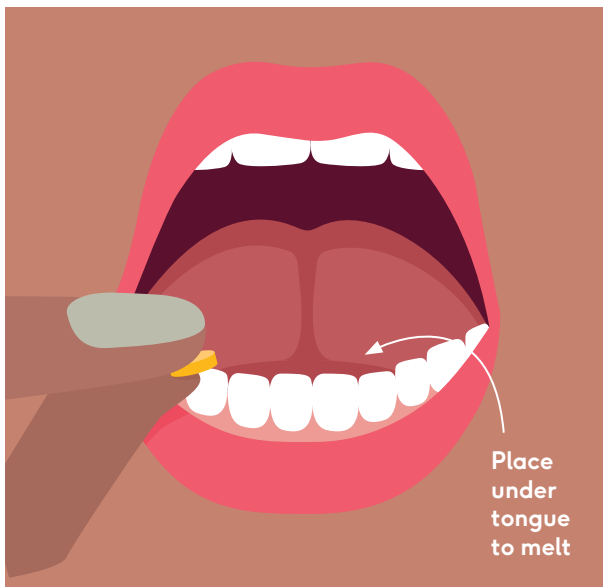
If you need to, you can buy GTN spray at a pharmacy. You may need to speak to the pharmacist to buy it.

How do I use GTN tablets?

It's a good idea to learn how to take your GTN tablets as soon as you get them, as you might need to use them in a hurry. If you need to use GTN tablets:

- Stop what you're doing and rest.
- Put one tablet under your tongue and close your mouth.
- Let the tablet dissolve slowly in your mouth.
- Rest for a while, then stand up slowly.
- Take another tablet after five minutes if the first one does not help.

Call 999 for an ambulance if you still have symptoms five minutes after taking the second dose.



Close the container after you've used it, so your tablets keep their strength.

Make sure you check the expiry dates of your medicines. GTN tablets usually expire about eight weeks after the packet is opened, so you'll need to replace them after that.

How do I use a GTN skin patch?

Your doctor may recommend a GTN skin patch to help stop pain or any uncomfortable feelings from starting. GTN is absorbed into your skin through the patch instead of using a spray or tablet.

Usually, you put one patch on in the morning and take it off before you go to bed at night. You will need to put on a new patch each morning, or you can ask someone to help you.

You can choose an area of your skin to put the patch on. It's a good idea to put it somewhere with no hair, or very little hair, so the patch sticks well. For example:

- the side of your chest
- upper part of your stomach
- upper arm
- upper thigh
- your shoulder.

To apply your patch:

- Wash the area of skin and dry it completely. Avoid using any products with perfume in such as creams and talcum powder.
- Sit down.
- Open the GTN packet with your fingers, not scissors, to make sure you do not cut the patch.
- Remove the patch from the packet.
- Peel the plastic backing off the patch. Try not to touch the sticky surface with your fingers.
- Put the sticky side of the patch on your clean skin.
- Press it down firmly and count to five.
- Rub your finger round the edge of the patch to make sure no air or water can get in.

You should put your patch in a different place each day of the week and wait several days before using the same place again.

If you have put your patch on properly, you can have a warm (not too hot) bath or shower and go swimming while the patch is on.

What are the side effects of GTN?

Like all medicines, GTN can cause side effects, although not everybody gets them. You'll find more information about the side effects in the leaflet that comes with your medicine.

GTN can cause:

- headaches as the medicine widens the blood vessels that go to your brain
- dizziness or feeling faint as the medicine can make your blood pressure drop.

Less common side effects include:

- feeling weak, tired or sleepy
- feeling sick
- a red face.

Side effects often improve as your body gets used to the medicine.

Speak to a doctor or pharmacist if you have side effects that bother you or do not go away. You may be able to try another form of GTN (spray, tablets or patch) to see if it suits you better.

What other medicines will I need to take?

To help you manage the pain or uncomfortable feelings of angina, you may need to take at least one other medicine every day. Some people need to take two or more. The medicines you are prescribed will help your heart work better.

The common types of medicine are:

- **beta blockers** to make your heart beat slower and with less force
- **calcium channel blockers** to relax your arteries, increasing blood supply to your heart muscle.

If you cannot have either of these medicines or still have symptoms, you may be given another medicine such as:

- **ivabradine** to slow your heartbeat so your heart does not have to work as hard
- **nicorandil** to relax the arteries, increasing blood supply to your heart muscle
- **isosorbide mononitrate and isosorbide dinitrate** (long-acting nitrates) to relax the veins and arteries, increasing blood supply to your heart muscle
- **ranolazine**, taken with other medicines to help reduce your symptoms.

Your doctor will talk to you about the best option for you.

You can find more information on medicines on our website: **bhf.org.uk/medication**

If you have questions about a medicine you're taking, speak to your doctor, nurse specialist or a pharmacist. You can also visit **nhs.uk/conditions/angina**

Do I need to take medicines to reduce my risk of a heart attack?

Your doctor may also recommend you take medicine to reduce the risk of a heart attack or stroke.

This could include:

- a **low dose of aspirin** to prevent blood clots
- **antiplatelet medications** to help prevent blood clots and keep stents clear
- **statins** to reduce your blood cholesterol level
- **ACE (angiotensin-converting enzyme) inhibitors** to reduce your blood pressure.

You might have questions when you start a new medicine. If you live in England and you're prescribed a medicine to treat a long-term condition, you may be able to get help from a free scheme called the New Medicine Service.

When you take your new prescription to your local pharmacy, ask if you can take part in the New Medicine Service.

You can ask your doctor or pharmacist any questions you have.

How much do prescriptions cost?

Medical prescriptions are free in Northern Ireland, Scotland and Wales. They are also free for people in England who meet certain criteria.

Most adults in England must pay prescription charges.

If you know you'll have to pay for a lot of NHS prescriptions, it may be cheaper to buy a prescription prepayment certificate (PPC). This means paying one amount for a set amount of time, and this covers all your prescriptions for that time.

For more information on the cost of prescriptions search '**NHS prescription costs**'.

Surgery and other procedures

If medicines are not helping to manage your angina, your doctor may recommend a procedure to increase the blood flow to your heart muscle.

There are two main procedures for angina:

- coronary angioplasty with stenting
- coronary artery bypass graft (CABG).

Your doctor will talk to you about the best option for you.

Coronary angioplasty with stenting

A coronary angioplasty with stenting is a procedure to widen a blocked coronary artery. This is done by putting a stent in your artery. It's also known as percutaneous coronary intervention or PCI.

What happens during a coronary angioplasty with stenting?

A tiny tube with a balloon at the end is put into an artery in your wrist or groin and guided to your heart.

Once it reaches the narrow part of your coronary artery, the balloon is blown up to widen it.

A short wire mesh tube, called a stent, is put into the artery.

The balloon is taken out and the stent is left in place permanently to keep the artery open and increase blood flow to your heart muscle.

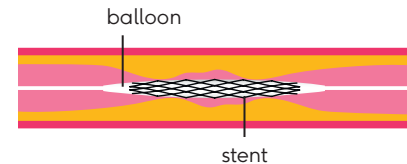
The procedure takes about one hour. You'll be able to go home the same day or the day after.

Coronary angioplasty with stenting (or PCI)

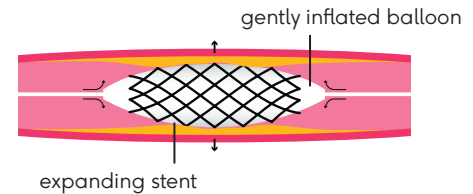
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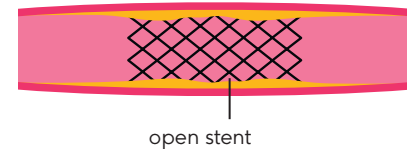
Step 2



Step 3



Step 4



Coronary artery bypass graft (CABG)

Coronary artery bypass graft (CABG) is also known as heart bypass surgery. It might sound like people are calling it a 'cabbage.'

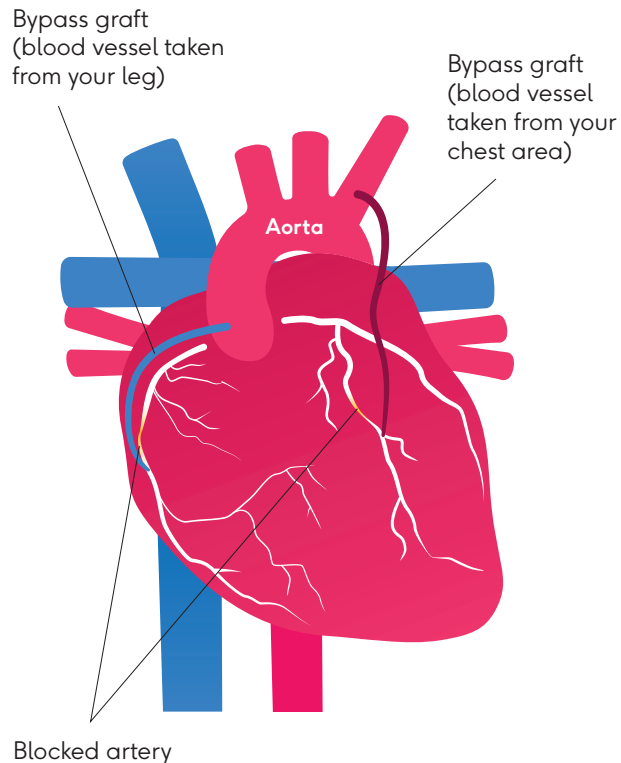
What happens during a coronary artery bypass?

A blood vessel is taken from another part of your body, usually your leg, arm or chest.

This new blood vessel is called a graft.

One end of graft is attached to the aorta (the main artery leaving the heart) and the other end to the coronary artery below the narrow or blocked section to improve blood flow.

The procedure usually takes four to five hours. You'll be able to go home about one week later if you're recovering well.



Making lifestyle changes

Lifestyle changes may help manage your angina including:



maintaining a healthy weight



eating a healthy, balanced diet



limiting how much alcohol you drink (under 14 units per week)



stopping smoking and using other tobacco products



controlling high blood pressure and cholesterol levels



controlling your blood sugar levels if you have diabetes

Can I exercise with angina?

Staying active and exercising can help manage angina and your health. The benefit of exercising is gradual, and it can help you feel better as time goes on.

It's normal to worry that exercise could trigger your angina or cause a heart attack. There are ways to exercise in a safe way:

- Build up your activity level gradually and take regular breaks.
- Keep your GTN spray or tablets with you.
- Use the spray or take a tablet before starting exercise, if needed.

Many people with angina can enjoy their favourite activities and feel the benefits of staying active such as:

- boosted mood
- increased energy levels
- better sleep.

Speak to your doctor if you have any questions or you're thinking of starting a new exercise. They can:

- answer any questions you may have
- support you to exercise and get active.

Speak to your GP to find out if there's any local cardiac rehabilitation teams you can speak to for help with exercise.

You can also find tips on exercise when you have angina on our website:
bhf.org.uk/activity

Can I go on holiday?

Most people with angina can go on holiday. If your angina is controlled and you feel well, it should be okay. You should check with your doctor that you are fit enough to travel. You'll need to bring enough medicine with you to last your holiday.

There are things you can do to keep safe while your travel.

- Keep medicine in your hand luggage if you are flying to your destination. Some people keep a supply in their suitcase too.
- Keep proof of your prescriptions and a list of your medicines and doses with you in case you need it for airport security or if you lose any.
- Know the emergency numbers of the country you're travelling to and your travel insurance provider.
- Look up where your closest pharmacy and hospital are on holiday in case you need them.

You can find more information on holidays and travel insurance at
bhf.org.uk/practicalsupport

Can I drive?

Most people can keep driving if they have angina. It's important not to drive if you're having chest pain or any uncomfortable feelings. Find a safe place to pull over if you start to feel unwell.

You may need to tell the DVLA (Driver and Vehicle Licensing Agency) that you have angina if you drive a vehicle that is not a car or motorbike.

If you're told you cannot drive because of your health you may be able to get a free bus pass. This may also give you a discount on some train fares too. Search '**free bus pass**' and the country you're in for more information on your government website.

Speak to your doctor if you're worried about driving. You can also find more information on our website: **bhf.org.uk/driving**

Can I have sex?

You can enjoy a healthy sex life if you have angina. It's normal to worry that having sex will trigger pain or an uncomfortable feeling, but the risk of this happening is low.

Like any other physical activity you do, if you feel well and listen to your body, you should be okay. Stop and rest if you start to feel unwell.

If you're worried about sex, there are things you can do.

- Keep your GTN medicine nearby so you can use it quickly if needed.
- Use your GTN medicine just before having sex.
- Speak to your doctor or nurse.

It may feel embarrassing or uncomfortable to ask questions, but healthcare professionals speak to people all the time about sex and relationships.

They will be understanding and can offer you information and support. Many people feel much better once they speak to someone.

If you prefer to look for information online, see our website: **bhf.org.uk/sex**

Support for you and your loved ones

British Heart Foundation

If you need more information or just want to talk to someone, we're here for you.

- Talk to one of our cardiac nurses by calling our freephone Heart Helpline.
- Join our online community, Health Unlocked, to talk to other people living with angina.
- Subscribe to Heart Matters for information on diet, exercise and more.

bhf.org.uk/supportforyou

International Heart Spasms Alliance

Resources and coping strategies for people living with microvascular angina and vasospastic angina.

internationalheartspasmsalliance.org

Mind

Mental health support for you and your loved ones with information, advice and local services.

mind.org.uk/information-support

For further information from BHF on angina, scan here or visit bhf.org.uk/angina



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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