

Having a coronary angiogram

This leaflet aims to answer some of the questions you may have about having a coronary angiogram. It explains the benefits, risks and alternatives to the procedure, as well as what to expect when you come to hospital. If you have any further questions or concerns, please speak to a doctor or nurse caring for you.

What is a coronary angiogram?

A coronary angiogram (or cardiac catheterisation) is a procedure that allows your doctor to look inside your coronary arteries (the vessels that supply blood to the heart muscle) to see if there are any narrowings or blockages. It provides important information about the structure and function of your heart. The procedure uses X-rays and a special dye (called contrast) which is added to your blood.

Why am I having a coronary angiogram?

Coronary angiograms can be used to help diagnose heart conditions, plan future treatment and carry out some procedures. They can also give information about how effectively your heart is pumping, and about the blood pressure inside your heart. An angiogram can also be helpful for investigating other conditions, such as congenital (inherited) heart disease. It may be used after a heart attack, to help diagnose angina (chest pain caused by restricted blood supply to the heart) or before surgery or a procedure. It is considered to be the best method of diagnosing coronary artery disease.

How can I prepare for a coronary angiogram?

You should continue to take your regular medicines as usual. We will tell you in your admission letter if you need to adjust the dose or stop taking any of them temporarily. In particular, you may need to stop taking or adjust your doses of:

- anticoagulation medicines (including warfarin and the newer oral anticoagulants (NOACs) such as rivaroxaban)
- metformin-containing medicines and other medicines for diabetes (including insulin).

If you take any of these medications but have received no instructions, please contact the nurse practitioner in the Catheter Lab Day Unit, **t: 020 7188 7188 Ext 58013** at least 72 hours before your admission to discuss your medicines.

Please bring all of the medicines that you currently take or use with you. This includes anything that you get from your doctor on prescription, medicines you have bought yourself over the counter, and any alternative medicines such as herbal remedies.

You should have a light breakfast **before 6am** on the morning of your procedure but you must not eat after that. You can drink water only up to the time of the procedure.

You will need to have a shower or a bath on the morning of the procedure to reduce your risk of infection.

Consent – asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens during a coronary angiogram?

The procedure is carried out in a cardiac catheter laboratory. If you are not having any further treatment (such as a stent being inserted) at the same time as the angiogram, it will take approximately half an hour, but could take up to two hours depending on your anatomy. You will need to lie flat on a table for at least this length of time.

You will be given a local anaesthetic by injection. We will then make a small cut in your wrist or groin and insert a hollow tube called a sheath. A long, thin, flexible tube (catheter) is then passed through the sheath and into a blood vessel. Using X-ray images as a guide, we will pass the tip of the catheter up to the heart and coronary arteries. We will inject a dye called contrast medium into the catheter and take X-ray images (angiograms), which will show if your coronary arteries are narrowed anywhere, and if so, where. This catheter will then be removed.

You will be awake during the procedure. We may give you light sedation and pain relief.

Will I feel any pain?

A coronary angiogram is not a painful procedure, although it may at times feel a little uncomfortable and you may experience some slight chest pain. If you do experience any pain or feel unwell please let the team looking after you know straight away.

What happens after a coronary angiogram?

After your coronary angiogram, we will look after you in the recovery unit before we transfer you back to the ward. We will check and record your pulse and blood pressure during this time.

If the catheter was inserted into your groin, a nurse may apply pressure for up to 10 minutes to stop the bleeding after the catheter and sheath have been removed. This can sometimes be uncomfortable. Sometimes the doctor carrying out the procedure will insert a small surgical plug to seal the wound, or a special stitch or other closure device, in which case it will not be necessary to apply pressure to the wound. You will be asked to lie flat until any bleeding has stopped. If all is well, you will be asked to sit up after a few hours, and you should be able to get up and walk around shortly after. You can eat and drink as normal after your procedure.

If the catheter was inserted into your arm, we may place a small pressurised cuff around your arm, and decrease the pressure gradually over the course of several hours. A nurse will check whether there is any bleeding at the site where the catheter was inserted. You should be able to sit up straight away, and you may be able to walk around soon afterwards.

You should tell the healthcare professionals treating you if you feel unwell at any time after the procedure.

When planning your journey home, please be aware that we advise you not to drive for three days if this procedure has been performed via your wrist and for five days if this procedure has been performed via the top of your leg.

What do I need to do after I go home?

We will give you a leaflet called [Going home after your coronary angiogram](#) which will explain in detail what you should and should not do when you are discharged and at home.

Your nurse will also give you advice.

Will I have a follow-up appointment?

The doctor will give you the results of your angiogram while it is going on, or while you are recovering. We will advise you on whether or not you need any further treatment or follow-up appointments, and roughly when these will be. Please ask if you are not sure of this before you leave.

What are the risks?

A coronary angiogram is generally considered to be a safe procedure. However, as with all medical procedures, there are some associated risks. These include the following:

- Bruising or bleeding under the skin at the wound site, known as a haematoma. This may take up to a couple of weeks to heal, and may cause some tenderness or discomfort.
- Damage to the artery at the wound site, sometimes known as a false aneurysm. You may need another procedure to fix this and it could increase your length of stay in hospital. This is uncommon but is more serious.
- Allergic reaction to the contrast dye. It is important to discuss any allergies you have with your cardiologist or nurse, including allergies to foods.

There is a very small chance of a serious complication as a result of a coronary angiogram, including the following:

- Damage to one of the coronary arteries, or a heart attack caused by blocking off one of the arteries. We would try to repair the artery during the procedure, but in some cases emergency heart bypass surgery may be needed.
- A stroke caused by a small blood clot being displaced and travelling to the brain.

These risks are considered rare, but they are very serious and in very rare circumstances may be fatal.

The risks are higher for those who are already unwell, or who have lots of other health problems or severe heart disease. Please note there may be risks associated with **not** having the procedure, such as not investigating or treating your heart disease. This is something your cardiologist will have considered. They will discuss your risks with you prior to the procedure.

Are there any alternatives?

There is an alternative way to carry out a coronary angiogram, using computerised tomography (CT). A CT coronary angiogram also shows the blood flow through the coronary arteries (similar to a traditional coronary angiogram). However, in this test the dye is injected into a small vein in

your arm rather than an artery in your groin or wrist. This makes the test less invasive than a traditional angiogram. A CT coronary angiogram is generally not as effective at detecting areas that have narrowed in small coronary arteries or in small branches. The standard coronary angiogram is still the best way of diagnosing coronary heart disease. Your doctor will discuss with you the particular risks and benefits of each.

Contact us

If the date of your admission is not convenient, please contact **Cardiac Admissions**,
t: 020 1788 8005 (Monday to Friday, 9am-5pm).

The **cardiac rehabilitation team** are available for further support or to answer questions or concerns about having a coronary angiogram.

t: 020 7188 0946 (Monday to Friday, 9am-5pm).

We may be able to provide you with information about local support groups or groups in your area. Please ask if this is something you would be interested in.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

British Heart Foundation

For more information on having a coronary angiogram or on any other issues relating to heart disease.

t: 08450 708070 (information line)

w: www.bhf.org.uk

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748, Monday to Friday, 9am to 5pm

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Was this leaflet useful?

We want to make sure the information you receive is helpful to you. If you have any comments about this leaflet, we would be happy to hear from you, fill in our simple online form, **w:** www.guysandstthomas.nhs.uk/leaflets, or **e:** patientinformationteam@gstt.nhs.uk

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