

Having an angiogram and catheter test of your heart (coronary angiography)

Department of Cardiology

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Information for Patients

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This booklet aims help you understand what to expect before, during and after your coronary angiography. If you have any questions that the booklet does not answer, please ask the nursing or medical staff who are looking after you.

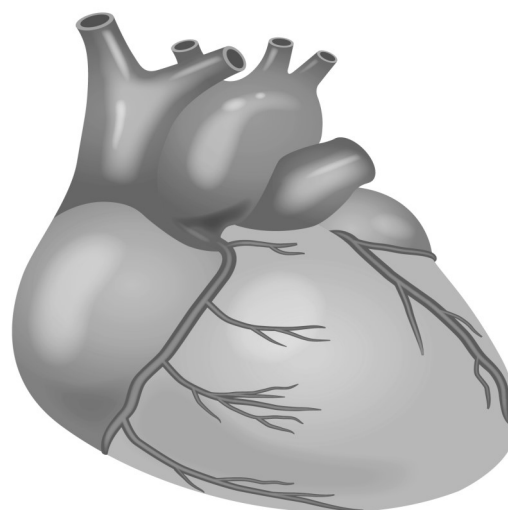
Coronary artery disease

Coronary artery disease describes furring and narrowing of the blood vessels (arteries) in the heart. These provide blood flow to the heart muscle.

The gradual build up of fatty materials in the inner lining of the arteries is the most common cause of narrowing of the coronary arteries.

Angina is the term for the feelings, or symptoms. It is what happens when the build up is enough to limit the blood flow down the artery. The heart muscle does not get enough blood and oxygen.

These symptoms may include chest pain, discomfort, breathlessness.



What is a catheter test?

Cardiac catheterisation and angiogram are tests that help us to understand more about your heart problem. You will need a short stay in hospital to have these tests.

In a catheter test 1 or 2 fine tubes called catheters are passed into blood vessels.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

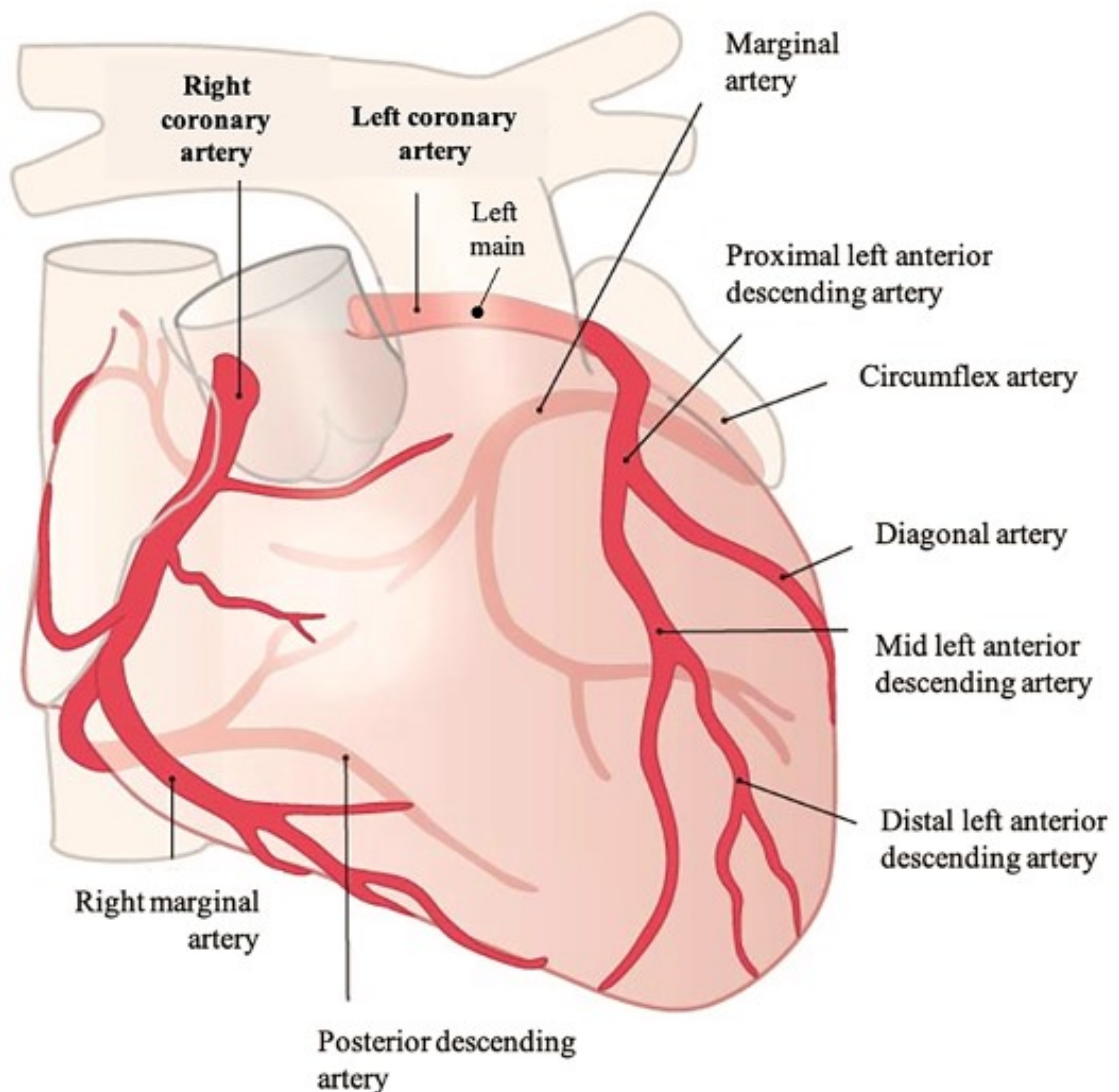
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To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

This is done through a puncture hole in either the wrist or the top of the leg. We use X-rays to check the position of these fine tubes as they are passed round to the heart.

The catheters measure pressures inside the heart. They are used to inject 'dyes' that let X-ray pictures be taken of the heart and coronary arteries.

As this test uses X-ray screening it is important that you tell us before you come into hospital if there is a chance you may be pregnant.

The heart and its coronary arteries:



Pre-admission

Many patients are seen in a pre-admission clinic before being admitted to hospital for their procedure. If you are on warfarin or have diabetes, the doctor and nursing staff will talk to you about what tablets and insulin you may need to stop or reduce before coming into hospital.

You will have a heart trace (ECG), blood tests and swabs to check for a bacteria called MRSA, We will give you an anti-bacterial nasal ointment and a daily body/hair wash treatment. You need to start using these 2 days before you come in for your procedure.

Your pre-admission will take place before your scheduled procedure date.

If you do not get a pre-admission appointment by 2 days before your expected procedure date, you must call the pre-admission admin team on 0116 250 2598 or 0116 258 3903.

Remember to bring all your usual medication with you to your pre-admission clinic and on the day of your procedure.

How do I need to prepare myself?

- We ask that you have a shower or bath on the morning of the procedure before coming to the ward.
- We encourage you to eat and drink as normal right up until the procedure. You do not need to fast. You can eat and drink as normal.
- Please take all your morning medication as usual, unless you have been told not to. **If you have diabetes** please stop taking any Metformin (or Sukkarto) 2 days **before** the procedure.
- We will give you a gown and pants to wear during your procedure. We do not usually give sedative medicine beforehand, but if you are very anxious, we can arrange this in the Catheter Labs. Please feel free to ask about this at any time whilst in the lab.

Please bring an overnight bag with a dressing gown and slippers.

On the ward - what does the test involve?

- You will be admitted onto a Cardiology ward and told what time to expect your procedure. When you arrive on the ward you will meet the nurse who will be caring for you. They will help you to prepare for the test. You may be in a bed space, or you may be taken for your procedure from our 'Radial Lounge'.
- A small plastic tube (called a venflon or cannula) will be put in the back of your hand or arm. This is so that medication and fluids can be given to you during the procedure if needed.
- We will clip any body hair from the angiogram puncture site, the wrist and groin. **Please do not shave this area before you come to hospital.**
- If you are well after the procedure we will talk to you about when you can go home (be discharged). This could be the same day or we might ask you to stay in hospital overnight. You must not drive yourself home after your procedure.

The catheter test

- The catheter test is done in an investigation room. It has special X-ray and monitoring equipment. It is away from the ward. You may be asked to walk to the investigation room.
- A nurse from the investigation room will come and introduce themselves. They will take you to the room. The staff in the investigation room will be wearing gowns, masks and hats, as this is a clean procedure.
- You will be transferred on to an X-ray table. It is narrow and a bit hard.
- Heart monitor wires will be attached to your arms and legs.
- Either your groin or arm will be cleaned with an antiseptic lotion and sterile towels will be used to cover the surrounding area.
- A local anaesthetic will be injected to numb your skin so you will not have pain when the tube is passed into your blood vessel.
- Once the catheter has been put in the blood vessel in your arm or groin, you should not feel them as they are passed up to your heart. Sometimes you may feel a few extra heart beats (palpitations) but this is perfectly normal.
- The X-ray equipment will be positioned close to your chest, but will not cause you any harm.
- Most catheter studies involve an injection of an X-ray dye through the tube into the main veins and arteries of the heart. During this injection it is usual for you to have a sudden flushing feeling. This lasts up to 30 seconds. You may also feel like you have had a pee (passed water) but you will not have done.
- You will also hear the cinecamera we use to take pictures of the X-rays.
- The test takes about 30 minutes, sometimes less.
- When the catheters are taken out pressure will be applied on your groin/arm for about 15 minutes to let the blood vessel seal.
- You will not need any stitches.

What happens afterwards?

- After the test is finished you will be taken back to the ward.
- If your procedure has been done in your groin you will need to rest in bed lying flat for 30 minutes. We will then help you to sit up in bed for a further 1½ hours+.
- Please keep your leg as straight as possible to minimise the amount of bruising / bleeding you may get. You must not get out of bed during this time.
- After the first 30 minutes of lying flat you will be sat up for something to eat and drink. After the full 2 hours bedrest period you will be asked to move to make sure your groin is ok.
- If the procedure has been done through your wrist, you will have a device called a TR band on your wrist. It has a little balloon designed to press onto the artery to stem bleeding. This will remain on your wrist for 2 to 3 hours.
- A member of staff will check your blood pressure.

- Once back on the ward you will be able to eat and drink.
- The nurse caring for you will check your pulse and check your blood pressure. Your TR band will be deflated and removed after 2 to 3 hours. Once the band is off, we will keep you for a further 30 minutes to make sure there is no further bleeding.
- You will normally be able to go home on the same day, but sometimes patients stay in overnight.
- Once you are ready to go home, you will be discharged with a letter, any medication changes you may need. Your cannula will be removed.
- You will be informed of the results of the test before you go home.
- A follow-up appointment is not always needed. If we do need to see you again, we will send you a letter.

Benefits of the procedure

These tests can tell us about the state of your coronary arteries, the heart valves and the pumping chambers of the heart. They are an essential part of planning for possible heart surgery or other cardiac procedures.

If you have specific worries, please talk to your consultant, GP or nurse responsible for looking after you.

What are the risks?

No test which involves putting tubes into blood vessels of the heart is totally free of risk. The risks are higher if you are very unwell or older (over 70 years). Risks include:

- About 1 in every 1000 people (0.1% chance) might have a heart attack (myocardial infarction), stroke or serious heart rhythm disturbance, any of which might lead to death (about 1 in 10,000).
- Emergency cardiac surgery may be needed during or soon after the procedure if a serious problem is found or develops.
- There is a very small risk of clotting in the leg veins (thrombosis) with clots passing to the lungs (embolism).
- Minor groin complications of bleeding and bruising are common (about 1 in 5 people or 20%) with more serious damage to the artery or veins in about 1 in every 100 cases.
- The procedure has a small risk, about 1 in 8,000, of causing fatal cancer due to X-ray exposure. The radiation you will get is similar to the natural radiation you are exposed to over 1 year of living in Leicester (about 2.6 mSv). The risk may change depending on how complex the procedure is.
- Depending on the complexity of the exam there is a small chance of radiation induced skin reddening (erythema). We will tell you if you are a higher risk of this after the procedure is completed.

Going home from hospital (discharge)

If your catheter test was from the groin, avoid heavy lifting and fast walking for 2 to 3 days after leaving hospital. You will have a plaster in place. You can take this off at home after 2 days. If your catheter test was done through the wrist, avoid heavy lifting for 3 days.

You will not be able to drive after the procedure. You will need to arrange for someone to collect you from hospital.

The Driving and Vehicle Licencing Agency (DVLA) state that you should not drive a car for 3 days from the date of the procedure if you have had an angiogram. You do not need to tell the DVLA. If you have had stents, you must not drive for 1 week.

A bus or lorry driver must tell the DVLA about the procedure. You must not drive the bus or lorry until you have had permission from the DVLA.

You must have someone with you overnight on the day of your discharge.

You must have access to a telephone.

You should take it easy for at least 2 days. Slowly increase your activity. Ask your doctor or nurse about returning to work as this often depends on your job. We often suggest that you have 1 week off work. Avoid lifting heavy objects and activities such as vacuuming, mowing and lifting heavy shopping for 2 days and then return to normal activity.

You can have a warm shower 24 hours after your procedure. Do not have a hot bath as this may cause the artery to swell and cause bleeding.

Follow-up

A follow-up appointment is not always needed. If we do need to see you again in outpatients, we will write this in your discharge letter.

Possible complications once you go home

- There is a very small risk that the wound in your wrist or groin may start **bleeding**. If you do have any bleeding, do not panic but **lie down on the floor** (not the bed), where you are less likely to faint.
- **If your groin is bleeding**, Use the flat of the fingers of both hands, or a clenched fist to **firmly press over the groin or wrist wound for 10 minutes**. Ask someone else to do this for you if possible as it will be easier to apply better pressure.
- **If your wrist is bleeding, apply firm pressure just above the wrist pulse for 10 minutes**.
- Do not use a tourniquet for either the wrist or groin, as it will not work and is dangerous. You should contact your GP so that they can check your wound and to see that you are all right. **If the bleeding has not stopped after 10 minutes dial 999 for help**.
- Bruising and colour changes to the skin above and below the groin or wrist may develop over the week. This is completely normal. Take paracetamol to help with any discomfort.

- If a painful lump develops, this could be due to bleeding under the skin. Please seek medical advice, especially if the groin becomes painful when walking.
- If any hard lumps or swellings develop on or around your wound site, please contact your GP and seek immediate medical advice.
- If there is any doubt or problem with your groin or wrist, within the first week of returning home, you should contact your GP.

Cardiac rehabilitation helplines

| | |
|----------------------------|---------------|
| Glenfield Hospital | 0116 258 3986 |
| Leicester General Hospital | 0116 258 8069 |
| Derby Royal | 0133 225 8137 |
| Kings Mill | 0162 367 2296 |
| Lincoln County | 0152 257 3945 |
| Pilgrim | 0120 544 6282 |
| Queen's Burton | 0128 359 3150 |
| Kettering | 0153 649 1102 |
| Bourne Health Care | 0177 8425124 |
| George Elliot | 0247 635 1351 |

Further information

www.activateyourheart.org.uk an interactive website for patients and their relatives. It has heart and health related information.

The British Heart Foundation has up to date information on heart disease www.bhf.org.uk. They also have booklets and DVD's, with videos of procedures on line.

It has a helpline number 0300 330 3311.

Contact details

| | |
|---------|---------------|
| Ward 28 | 0116 258 3646 |
| Ward 32 | 0116 258 3313 |
| Ward 33 | 0116 258 3733 |

Pre-Admission Nursing Team (Clinic D) 0116 250 2473 (Monday to Friday, 9am to 5pm).

PALS (Patient Advice and Liaison Service)

A confidential support, advice and information service. We welcome feedback about our services. Your comments, concerns and compliments help us make sure the patient experience is as good as it can be.

E: pals@uhl-tr.nhs.uk

Tel: 0808 178 8337

Space for your notes

If you have any questions, write them down here to remind you what to ask:

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk