

## Cardiac Catheterisation

### What is cardiac catheterisation?

Cardiac catheterisation is a test which provides your doctor with detailed information about your heart. This helps them to decide the best treatment for you.

Cardiac catheterisation requires the insertion of a small tube (called a sheath) into a blood vessel, either at the top of the leg or in the wrist.

Another tube is then inserted into the sheath and guided into the arteries, so that a dye can be injected and X-ray pictures taken. This allows the arteries to be seen and a 'roadmap' of them to be drawn. In addition this may give the doctor information relating to the pumping function of the heart muscle and the pressures within the heart chambers. More details of the test are available further on in this booklet.

### Why do I need it?

There are a number of reasons why you might be having this test.

You may have had symptoms such as chest pain or shortness of breath. You may have had other tests carried out which have shown that a cardiac catheter study needs to be performed, such as an electrocardiogram (ECG), treadmill test, myocardial perfusion (MPI) scan, or stress echo. The detailed information obtained from the cardiac catheterisation procedure will tell us how your heart is working and help decide the best treatment for you.

### Are there any risks?

**On rare occasions there can be complications such as:**

- A heart attack, stroke or death (the risk for this is less than 1 in 1000) However the risk may be increased if you have already been admitted with a heart problem or you have certain underlying medical conditions such as diabetes, renal failure or heart failure
- Rarely, the catheter can cause damage to the artery, in which case you may have to stay in hospital to have it repaired. (The risk for this is 1 in 500)
- Bleeding or bruising can occur, especially around the area where the catheter was inserted. This can be made worse if you are on anticlotting drugs
- An allergic reaction to the dye can occur (the risk for this is 1 in 100). This is usually very mild and temporary, such as a skin rash
- As cardiac catheterisation uses X-rays, any woman with child bearing potential (between ages 11–55) will be assessed for possibility of pregnancy and may be asked to provide a urine sample for pregnancy testing

Other less serious complications can include an irregular heartbeat or bleeding from the puncture site, both of which can be corrected immediately. If complications do arise, the doctor may decide to keep you in hospital overnight, to make sure everything is all right before you go home.

### What do I need to do before I come into hospital?

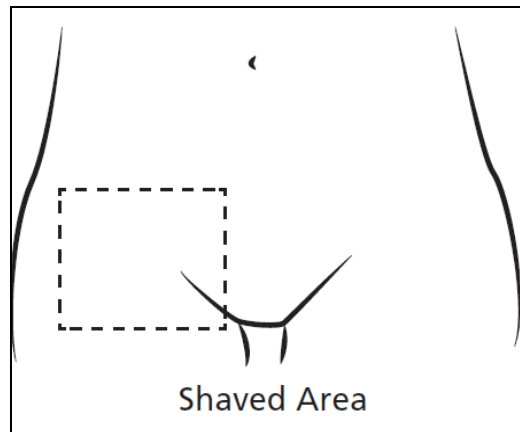
The majority of cardiac catheter procedures are performed on a day case basis. This means you will be admitted to the cardiology day case unit/angio recovery unit and stay in hospital only for

## Information for Patients

the day, usually going home either late morning or late afternoon depending on the time of your procedure.

As the procedure is often done from the artery at the top of your leg we would like you to prepare the area prior to coming to hospital.

To do this please carefully shave the area (approximately 20cm X 20cm). It is best to do this the day prior to admission. Please also have a bath or shower in the morning of your admission.



## Medication instructions

Most medications should continue as usual on the day of your procedure, but some need to be omitted:

### What if I am diabetic?

If you are diabetic please take all of your medication as usual. If you are due insulin while you are expected to be in hospital, please remember to bring it with you.

### What if I am taking anticoagulant drugs to thin my blood?

Anticoagulant drugs include warfarin, rivaroxaban, apixaban, dabigatran and edoxaban. You should continue on this medication, unless otherwise advised by your consultant or the pre-assessment nurse to stop.

You will be given instructions about this during your pre-assessment phone call with a nurse, please remember to write the instructions down so that you remember.

### What if I am taking any other medication?

We advise you to take your morning time medications as usual with some water. This includes aspirin. However if you are taking a water tablet (such as furosemide) it is reasonable to delay taking these until after the procedure for your comfort and convenience. Please bring all of your medications with you on the day of procedure.

## Can I eat and drink?

Yes. Please have something to eat prior to your procedure.

## What should I bring with me?

You may be asked to walk from the recovery area to the cardiac catheter lab therefore, please bring a dressing gown and slippers with you. Please bring all of your normal medications. You may wish to bring a book or a newspaper as you may be with us for a few hours.

## Information for Patients

---

### What happens when I arrive at the hospital?

The nurse caring for you will show you to your bed or trolley and take your blood pressure and pulse. A doctor/advanced clinical practitioner may come and ask you some questions and perform a brief examination. A small cannula will be inserted in the back of your hand or arm so that medication can be given if needed. Your nurse may also arrange for an electrocardiogram (ECG) to be recorded if required. This is a paper recording of the electrical activity of your heart.

Very occasionally, a test may be postponed if the medical examination finds something which needs to be sorted out first, for example if your blood pressure is too high.

You may have to wait some time before the test is performed so your patience is appreciated.

### What happens during the test?

On entering the cardiac catheter lab, you will be asked to lie on your back on the X-ray table, and will be attached to a heart monitor.

If the artery at the top of your leg is to be used, then the centre of the area of the groin you have shaved will be cleaned and then numbed using an injection of local anaesthetic to reduce discomfort. This may sting a little. If the artery in your wrist is used then local anaesthetic will be injected at that site.

Once the groin or wrist area is numb the cardiac catheter will be passed into a blood vessel leading to your heart. After the catheter is in place, a dye will be injected through the catheter into the blood vessels which supply the heart, and X-ray pictures are then recorded as the dye circulates.

The test takes approximately 30 minutes. Once it is complete, the sheath will be removed. If the procedure has been performed from the top of the leg then to ensure that there is no bleeding, the operator will try to insert a small collagen plug (called an angioseal) to seal the hole caused by the sheath. Sometimes this is not possible in which case firm pressure will be applied over the area for 10 minutes. You will be transferred back onto your bed. If the procedure has been performed from your wrist, a pressure band will be fitted. You will then be returned to the recovery unit.

### What happens after the test?

On your return to the recovery unit, your nurses will give you your bed rest instructions, which will vary depending on whether the test was done via your wrist or via your groin.

If the procedure was done via your groin, you may sit up straight away and get out of bed after 1 hour if an angioseal has been used. If it was necessary to apply manual pressure for 10 minutes you will be kept in bed lying flat for 1 hour, you will then be allowed to sit up and if all is ok with your groin you will be allowed to mobilise after a further hour. You will be asked to keep your leg very still during this time. This is very important, as it will reduce the chances of bleeding from the wound.

If the procedure was done via your wrist, you will be able to sit up straight away, though your nursing staff may ask you to stay in the bed for a period of time depending on whether you've been given any sedation. You will have a pressure band applied to your wrist, which will prevent bleeding from your puncture site. The pressure will be gradually released from this band over 2–3 hours.

During this time you will be closely observed by the nursing staff, and have frequent checks on

## Information for Patients

---

your blood pressure, pulse and puncture sites to ensure there is no bleeding.

Please do not hesitate to inform the nurse if you feel any pain or discomfort anywhere. Tell the nurse straight away if you get any chest pain.

Prior to going home you will be given the results of your test and a plan of what will happen next.

Once the nurses are satisfied your groin area or wrist area has sealed correctly, you will be able to go home.

### Driving post procedure

You are advised not to drive for 48 hours after your procedure.

On the day of your procedure, please arrange for a friend or relative to collect you. They can call the recovery unit to find out what time to collect you.

Good Hope angio recovery unit: **0121 424 7650**

Solihull Hospital cardiology day case: **0121 424 5038**

Birmingham Heartlands DayCase: **0121 424 2075**

If you require hospital transport to bring you to the hospital, please contact your GP. Be sure to tell the nurse on your arrival if you need transport to take you home.

### At home

As the test involves a major blood vessel there is a small risk of bleeding, particularly if the procedure has been performed from your groin. It is very important to rest for the next 24 hours, and if the procedure has been performed from your groin you should avoid any vigorous walking, strenuous exercise, lifting or housework for the next 24 hours. You will need a responsible adult to remain at home with you for 24 hours after the procedure. Failure to arrange this may result in your procedure being cancelled on the day.

### What do I do if...

#### **My wound starts to ooze?**

If the procedure was done via the top of your leg then lie down and the person with you should apply pressure over the area to help slow the bleeding. If it was done via your wrist, sit down and elevate your wrist to heart level or above and press firmly.

In both cases, press firmly on the puncture site for 10 minutes. If the wound continues to bleed after 10 minutes of firm pressure, call 999.

#### **My wound “spurts” dramatically?**

As above, lie down and press firmly on the puncture site, and call an ambulance immediately (**dial 999**).

#### **My wound develops a large excessive bruise, or a lump develops under the skin?**

A small pea-sized lump will develop under the puncture to the skin – this is normal. If the lump becomes larger than this, becomes tender or starts to develop a redness or discharge, contact the number provided on discharge.

#### **I develop unexpected symptoms suggestive of a stroke?**

Stroke is a rare complication of coronary angiography and angioplasty but it is important that you and your carer are able to recognise the early signs of this condition as urgent hospital treatment are needed. Delays can lead to much more serious and sometimes permanent brain damage.

## Information for Patients

---

### **Suspect a stroke? Think FAST!**

#### **What is FAST?**

**Facial weakness** – can you smile? Has your mouth or eye drooped?

**Arm weakness** – can you raise both arms?

**Speech problems** – can you speak clearly and understand what people say?

**Time** – to call **999**

So if you develop any of the symptoms above call an ambulance immediately (dial **999**)

### **My wound is bruised or uncomfortable?**

If you have developed a bruise at your groin site, then do not drive until the bruising has improved and the area is comfortable. This will be at least three days and up to seven days. Paracetamol can be taken for minor discomfort.

### **Making comments or complaints**

We hope you have no cause for complaint during your stay. However, should you have any problems please do not hesitate to tell the nurse, and we will try to resolve the matter there and then.

Alternatively, there is the Patient Advice and Liaison Service (PALS) who have personnel that will be happy to sort out any problems, concerns or complaints that you might have.

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email [patientexperience@uhb.nhs.uk](mailto:patientexperience@uhb.nhs.uk).