



**University Hospitals Birmingham**  
NHS Foundation Trust



# **Cardiac Catheterisation**

## **Patient Information**

**Building healthier lives**

**UHB is a no smoking Trust**

To see all of our current patient information leaflets please visit  
[www.uhb.nhs.uk/patient-information-leaflets.htm](http://www.uhb.nhs.uk/patient-information-leaflets.htm)

# Contents

What is cardiac catheterisation? .....	3
Why do I need it? .....	3
Are there any risks?.....	3
What do I need to do before I come into hospital? .....	4
Medication instructions .....	5
What if I have diabetes? Please do not take: .....	5
What if I am taking anticoagulant drugs to thin my blood?.....	5
What if I am taking any other medication? .....	5
Can I eat and drink?.....	5
What should I bring with me?.....	6
What happens when I arrive at the Ambulatory Care Day Case Unit?6	
What happens during the test? .....	6
What happens after the test? .....	7
Driving post procedure .....	8
At home .....	8
What do I do if .....	8
Making comments or complaints.....	9
Useful information.....	10

## 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 catheter) into a blood vessel, either at the top of the leg or in the wrist. This tube is then 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 pump 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 anti-clotting drugs

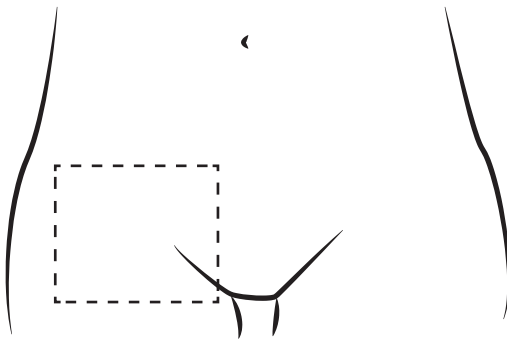
- An allergic reaction to the dye can occur (the risk for this is 1 in 100). This is usually very mild and temporary, such as a skin rash
- As cardiac catheterisation uses X-rays, any woman with child bearing potential (between ages 11-55) will be assessed for possibility of pregnancy and may be asked 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 Ambulatory Care unit and stay in hospital only for the day, usually going home either in the late afternoon or early evening.

Although the procedure is usually performed from the wrist, we would like you to prepare the top of your leg in case that route is needed. To do this please carefully shave the area as shown in this diagram (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.



Shaved Area

## Medication instructions

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

### What if I have diabetes?

Please do not take:

- Metformin or other tablets for diabetes on the morning of admission
- Insulin on the morning of admission

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

Anticoagulant drugs include warfarin, dindivan, rivaroxaban, apixaban, dabigatran and edoxaban. You should continue on this medication, unless otherwise advised by your consultant to stop.

### 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?

On the day of your procedure you must not eat for 6 hours before the procedure (including chewing gum), but you should drink clear fluids up to 2 hours before the procedure (water or tea/coffee without milk).

## What should I bring with me?

As the Ambulatory Care unit is a mixed sex area, please bring a dressing gown with you. We also suggest you bring a pair of slippers, plus a book or newspaper to read. Please bring all of your normal medications with you.

## What happens when I arrive at the Ambulatory Care Day Case Unit?

The nurse caring for you will show you to your bed or trolley and take your blood pressure and pulse. A doctor may come and ask you some questions and perform a brief examination. A small cannula will be inserted in the back of your hand so that medication can be given if needed. Your nurse will also arrange for an electrocardiogram (ECG) to be recorded. 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 Catheter Suite room, you will be asked to lie 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 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. You may also be given some sedation through a drip in your arm or hand, to help you relax during the test.

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 catheter will be removed. If the procedure has been performed from the top of the leg then to ensure that there is no bleeding, firm pressure will be applied over the area for 5-10 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 Ambulatory Care with a nurse escort.

## What happens after the test?

On your return to the Ambulatory Care 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 will be kept in bed lying flat for between ½ hour to 2 hours. 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. After flat bed rest, a period of sitting up in bed is needed before finally allowing you out of bed.

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 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.

At the end of the day, when the doctors' list is completed, a member of the medical team may come and see you to tell you the results of your test. If they do not, your nurse will explain the plan which will be documented in your discharge paperwork.

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

## Driving post procedure

If you had your procedure via the femoral (groin) route, you are advised not to drive for at least 48 hours, but up to 7 days if the area is still tender.

For procedures via the radial (wrist) route, you are advised not to drive for 24 hours.

On the day of your procedure, please arrange for a friend or relative to collect you. They can call the Ambulatory Care unit to find out what time to collect you: 0121 371 3120.

If you require hospital transport to bring you into the Ambulatory Care unit, please contact your GP. Be sure to tell the nurse on your arrival to Ambulatory Care 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.

## 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 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. In both cases, press firmly on the puncture site for 10 minutes. If the wound continues to bleed after 10 minutes of firm pressure, go to your nearest Emergency Department.

### My wound "spurts" dramatically?

As above, lie down and press firmly on the puncture site, and call an ambulance immediately.



## **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 Ambulatory Care on 0121 371 3125 (see opening hours below).

## **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 on Ambulatory Care. 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.

# Useful information

## **Ambulatory Care**

Level 0, Queen Elizabeth Hospital Birmingham  
Mindelsohn Way, Edgbaston, Birmingham, B15 2GW  
Telephone: 0121 371 3125

## **Cardiac Rehabilitation Team**

0121 371 4711

## **Heart to Heart Patient Support Group**

0121 472 6794

## **Heart & Angina Support Group**

0121 426 1915, 0121 451 1136

## **QEHB Patient Advice and Liaison Service (PALS)**

Queen Elizabeth Hospital Birmingham,  
Mindelsohn Way, Edgbaston, Birmingham, B15 2GW  
Telephone: 0121 371 3280 (office hours 09:00–17:00)





The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit [www.uhb.nhs.uk/health-talks.htm](http://www.uhb.nhs.uk/health-talks.htm)

---

### **Cardiac Rehabilitation**

Queen Elizabeth Hospital Birmingham

Mindelsohn Way, Edgbaston

Birmingham, B15 2GW

Telephone: 0121 371 4711

---