

# Coronary Angiogram

## Cardiology Department Patient Information Leaflet

### **Introduction**

You have been given this leaflet as your doctor has suggested you would benefit from having a Coronary Angiogram. This leaflet gives more information on what will happen to you before and after the procedure. It is designed to make sure that you know as much as possible about the procedure before you agree to it and sign the consent form.

## **What is a Coronary Angiogram?**

A coronary angiogram, also known as a cardiac catheterisation or angio, uses X rays to look at the coronary arteries that supply blood to of your heart. It will show any narrowing or blockages in the coronary arteries.

## **Why do I need a Coronary Angiogram?**

It is a test that will provide information about your heart to help decide on the best treatment.

## **Consent**

We must seek your consent for any procedure or treatment beforehand which will be a two-stage process.

Stage one will be with your doctor in a clinic setting where they will explain the risks, benefits and alternatives where relevant, before they ask for your written consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

Stage two will be a re-confirmation when you attend for the procedure and will be undertaken by a healthcare professional (either physiologist or the operator

## **What are the benefits of having this procedure?**

By looking at the blood supply to your heart muscle and recording the pressures within the different chambers of your heart will enable your doctor to evaluate your symptoms and plan what is the most appropriate treatment for you.

## **What are the risks of having this procedure?**

As with all procedures or operations, there is an element of risk. In most cases this is very small. These risks include:

- There is a very small risk of heart attack, stroke or death (in the order of 1 in 1000 cases)
- Emergency heart surgery is very rarely required during or soon after the procedure if serious problems are found or develop (in the order of 1 in 1000 cases)
- There is a small risk of damage to the artery in the arm or leg, requiring surgical repair.
- Bleeding under the skin at the wound site (haematoma)- this should improve after a few days
- Bruising- it's common to have a bruise in your groin or on your wrist for a few weeks
- Pain during injection of local anaesthetic.
- Allergic reaction. The dye, or contrast, we use to look at the coronary arteries contains traces of iodine- some people can have a sensitivity or allergy to iodine. Please tell staff if you have an allergy to iodine. (If you are allergic to strawberries, shellfish or TCP this may be an indication of an allergy to iodine.)
- A coronary angiogram involves a low dose of radiation, about the same as the amount of radiation you would normally get in 6 months of natural background radiation. X-rays can carry a risk of damaging the body's cells, potentially causing cancer. The benefit of the test far outweighs the risks.

## **What if I decide not to have a coronary Angiogram**

The Coronary Angiogram will give your cardiologist the best images of your coronary arteries. Without this information, they may not be able to advise you on which treatment plan is best for you.

However, there are other types of scans which may provide some useful information about your coronary arteries; your cardiologist will have discussed these with you, or you may have already had this type of test.

Your cardiologist would not have recommended you for a Coronary Angiogram unless they felt the benefits of the test outweighed the small risk.

### On the day of the procedure:

- You can have a light breakfast before 7am on the morning of the procedure.
- Drink as normal.
- Bring all medication with you.
- Please take your normal medications, with a sip of water, on the morning of your procedure- **see the note regarding Warfarin, anticoagulation and Metformin**
- Have a bath or shower
- Remove jewellery, contact lenses, make-up and nail varnish. Wedding rings can remain but will be taped for the procedure.
- Be prepared to stay overnight, pack a small bag
- Bring a book or something to do whilst you wait
- Bring reading glasses.
- Avoid bringing large sums of money or valuables
- Shave right groin.
- **Please arrange for a relative or a friend to take you home after your procedure by car/taxi. You will not be able to drive home or use public transport alone. Your relative or friend will need to stay with you overnight.**

### Medication

#### What to do if on Warfarin or newer anticoagulants (NOACs):

- **Stop anticoagulation** (Apixaban, Dabigatran, Edoxaban or Rivaroxaban) **48 hours before** the procedure
- Metformin - stop taking 48 hours before the procedure and 24 hours after the procedure

- **Warfarin**, please contact the day case unit 01384 456111 Ext 2573 or the Anticoagulation team Ext 2380 to discuss when to take your last dose.

- **Diabetes**

- Eat and drink as normal.
- Take your diabetic medication as normal.
- Stop taking Metformin 48 hours before procedure and 24 hours post procedure
- Remember to bring all your diabetes medication, dextrose tablets and blood testing equipment
- Your blood glucose will be tested by a finger prick when you arrive and monitored
- Usually, we will try to put you first on the list

## **What happens on the day:**

- We will provide you with a gown and paper pants to change into.
- A small canula (tube) will be inserted into a vein in your arm, this will allow us to give medication
- Pre-procedure tests will include blood pressure, temperature, ECG, height and weight
- Please advise us if you have any allergies
- A health care professional will discuss your consent. Please use this opportunity to raise any concerns that you may have

## **What happens during the procedure**

The procedure is performed in a dedicated Xray room within the Cardiology Department. You will be cared for by a team of doctors, nurses, radiographers and cardiac physiologists.

- You will lie on an X-ray bed
- Your ECG, blood pressure and oxygen levels will be monitored throughout the procedure
- You may be given a sedative to help you relax during the procedure.
- We may give you oxygen using a face mask
- Your wrist or groin area will be cleaned with a cold antiseptic, and you will be covered with sterile drapes.
- After injecting the area with local anaesthetic, you will feel a sharp scratch and stinging sensation for a few seconds, then the area will become numb. A small plastic tube (sheath) is then inserted into your artery which will enable the long hollow plastic tubes (catheters) to pass into one of your main arteries.
- Occasionally, a second sheath will be inserted into the vein if the doctor needs extra information.
- The doctor will pass the catheters up to your coronary arteries and inject dye to outline them. By doing this the X-ray pictures will enable us to see if there are any narrowing's or blockages within them. You will notice the X-ray machine moving close to your chest, head and from side to side, this enables a complete picture of your heart, arteries and valves to be taken
- You may notice a warm flushing feeling when the dye is injected. You may also notice/ feel the sensation that you have passed water. This is just a feeling; you will not have wet yourself. We will warn you when/ if this may occur.
- Very occasionally some patients experience chest discomfort during the procedure. If this occurs, please make us aware so we can administer pain relief that may be required
- You may experience some extra 'bumps' in the chest, but they will pass.
- Once the procedure has been completed the catheter and sheath are removed. Pressure is applied by either manual compression or a pressure device to control bleeding from the artery

- You will be taken back to recover in the day case unit

### **What happens after the procedure?**

- You will be taken back to recover in the day case unit
- Your heart rate, blood pressure and wound site will be monitored.
- If your test has been performed from the groin you may have to lie flat for up to 3 hours. Keep head down and leg still. Nursing staff will check the puncture site and leg pulses. If you cough or sneeze place a hand on your puncture site and apply pressure. If you feel bleeding apply pressure and shout for help from the nursing staff.
- If the test was done from the wrist, you will be able to mobilise more quickly but do not use your hand, rest it on a pillow. The band will be released slowly.
- You will be given something to eat and drink.

### **What happens after the coronary Angiogram?**

The doctor will discuss the results with you.

### **Going Home Advice**

**Please arrange for a relative or a friend to take you home after your procedure by car/taxi. You will not be able to drive home or use public transport alone. Your relative or friend will need to stay with you overnight.**

You are advised not to drive for 48 hours post procedure.

Keep your dressing dry and remove 24 hours post procedure.

If taking any anticoagulation medication (rivaroxaban, dabigatran, apixaban, edoxaban or warfarin) these can be restarted the following day. DO NOT take Metformin for 24 hours.

### **Diabetic patients**

You will be discharge when you are eating and drinking normally and your blood glucose is at a safe level.

However, if you are unwell with:

- **Continuous** vomiting /diarrhoea or high fever
- **Unable** to keep food down for 4 hours or more
- **High** blood glucose (>15mmol)
- **High** ketones (0.6mmol)

You should seek medical help. Contact your usual diabetes nurse or doctor

### **If bleeding occurs:**

**Radial/wrist-** sit down, elevate the affected arm, apply firm pressure to the site for 10 minutes. If still bleeding slowly, apply pressure for another 10 minutes. If bleeding persists, continue to apply pressure and call for help –999

**Femoral/groin-**lie down flat, ask a relative to apply firm pressure to the puncture site for 10 minutes. If still bleeding slowly, apply pressure for another 10 minutes. If bleeding persists call for help – 999

### **Radial notes**

If you see haematoma or your hand becomes cold or numb, the colour of your fingers turns blue, please contact the Cardiac Day Case Unit.

Avoid pulling or pushing with the affected arm for a week following the procedure. If you have a heavy job, you are advised to stay off



work for 7 days. If your work is lighter, then you can return to work when you feel ready.

### **Femoral notes**

If you see a haematoma or your leg or foot becomes cold or numb, the colour of your toes turns blue please the Cardiac Day Case Unit. Out of normal working hours please attend the Emergency Department.

If you have a heavy job, you are advised to stay off work for 7 days. If your work is lighter, then you can return to work when you feel ready.

### **How to contact us:**

#### **Cardiology Day Case Unit**

Russells Hall Hospital

Dudley

DY1 2HQ

Tel: 01384 456111 Ext 2573

Wednesday & Thursday 08.00 - 20.00

#### **Cardiology Ward**

Russells Hall Hospital

Dudley

DY1 2HQ

Tel: 01384 456111 Ext 2138

**Additional information:**

British Heart Foundation

Tel: 0808 802 1234

[www.bhf.org.uk](http://www.bhf.org.uk)