

# Diagnostic Coronary Angiogram (Cardiac Catheter)

A **diagnostic coronary angiogram** is a special investigation which uses x-rays to examine the structure and function of the heart. It is sometimes called a cardiac catheterization.

A very narrow, flexible plastic tube, called a catheter, is guided into the heart to examine the chambers of the heart and the coronary arteries. A special contrast dye which shows up on an x-ray is injected into the coronary arteries. This allows the doctor to see any blockages or narrowings that may be responsible for your symptoms.

## What are the benefits?

A coronary angiogram is not a treatment and you will not notice any improvement afterwards. The aim of a coronary angiogram is to provide important information about your heart and its blood supply, which will allow you and your doctors to decide on the best course of treatment for you.

## What are the Risks?

Coronary angiography is an important investigation that is performed in large numbers throughout the developed world. The test is very safe and the risk of serious complication is less than 0.2% (1 in every 500 patients).

These risks are greater under certain circumstances, for example, when the procedure is done as an emergency or when a patient is very unwell (e.g. during a heart attack). For patients with advanced heart disease or other significant medical problems, complications can sometimes occur even when the most experienced and skilled specialist performs the procedure.

The risk of complications does vary from patient to patient depending on the details of their condition. Figures quoted here represent average values for the John Radcliffe Hospital, which performs over 3000 procedures each year.

- Damage to the artery in the leg or arm where the catheters are inserted. Although a bruise commonly occurs, there is less than 0.1% (less than 1 in every 1000 patients) chance of a major problem. This could be excessive bleeding or blockage of the artery which would require blood transfusion or surgical treatment.
- Development of an abnormal heart rhythm occurs in less than 0.2% (less than 1 in every 500 patients). In rare circumstances this may lead to loss of consciousness and treatment may be necessary with drugs or electric shock.
- Reduction in kidney function. The contrast dye used can, in rare circumstances, cause kidney function to deteriorate (get worse). This is slightly more likely in patients who have abnormal kidney function before the procedure. It is usually a reversible problem that will resolve with time.
- An allergic reaction to the contrast dye. This may cause you to feel sick or develop a skin rash but symptoms usually resolve without further action.
- Damage to a major coronary artery causing it to suddenly narrow or block – less than 0.2% (less than 1 in every 500 patients). This could cause heart attack and may require treatment with coronary angioplasty or stent or an emergency coronary artery bypass operation.

- Stroke – less than 0.2% (less than 1 in every 500 patients).
- Death – less than 0.1% (less than 1 in every 1000 patients) during a routine diagnostic coronary angiogram.

**Your doctor will recommend that you have a coronary angiogram if he/she feels that the benefits of the procedure outweigh the risks.**

## Alternatives

Your doctors have recommended that this is the most appropriate investigation for your condition. If you wish to discuss alternatives, please talk to the doctor before you sign the consent form.

## How to contact us

Cardiac Angiography Suite	01865 572616	(Mon-Fri 7.30am-9pm)
Cardiac Investigation Annexe	01865 740421	(Mon-Fri 07.30-21.00)
Cardiology Ward	01865 220420	(24 hours)
Coronary Care Unit	01865 221304 / 220629	(24 hours)

## Further information

For further information the following web sites are recommended:

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

British Cardiac Society: [www.bcs.org.uk](http://www.bcs.org.uk)

### **Please note:**

The figures quoted in this document are average figures for all cases. Your Cardiologist will discuss with you any specific additional aspects of your case before the procedure.

The department where your procedure will take place regularly has professional observers. The majority of these observers are health care professionals, qualified or in training and on occasions, specialist company representatives. If you do not wish observers to be present during your procedure please inform a doctor or nurse.