

Patient information sheet – Coronary angiography, angioplasty and stenting

What is a coronary angiogram?

This a procedure used to look for certain heart problems, and most commonly to evaluate the arteries that supply blood and oxygen to your heart. The procedure is commonly performed to evaluate for narrowings or blockages (stenosis) in the arteries and how serious these narrowing are. These blockages / narrowings can cause chest pain, angina, heart attacks and cardiac dysfunction

How should I prepare for a coronary angiogram?

Your doctor will tell you how to prepare for the procedure. In particular, you should not eat or drink anything for 6 hours prior to the procedure.

Should I keep taking my medications before the angiogram?

In most cases you should keep taking your medications. If you are taking aspirin, plavix, prasugrel and/or ticagrelor, these will generally be continued. Certain diabetic medications need to be stopped prior to the procedure – especially metformin which is withheld for 24 hours pre and post procedure. Other diabetic medications and insulin will need to be ceased or reduced. Some blood thinning medication, such as warfarin, may need to be withheld prior to the procedure in some cases. If you are not sure, please ask your doctor

How is a coronary angiogram performed?

The procedure is done in the “catheter laboratory” of the hospital. You will be given sedation to make you relaxed – however, most patients remain awake, to minimise the risk of oversedation. Your doctor will make a very small cut in the top, inner part of your leg, or at your wrist (after numbing the area first with local anaesthetic). A thin plastic tube, called a "catheter," will be inserted into the blood vessel. The catheter is then advanced through your blood vessels to your heart. An X-ray is used to guide the catheter to the heart. When the tube is in place, your doctor will do the angiogram, which involves injecting a dye into the tube that shows up on an X-ray. Your body might feel warm during this part of the test. The procedure is not generally painful, though some discomfort can be felt when the local anaesthetic is initially injected into the skin.

If your arteries are blocked or narrowed, your doctor might do a procedure to open them – called *angioplasty or stenting* (see description below). If there is a chance of you having this done, this will be discussed with you prior to the procedure. The tube is removed from the artery at the end of the procedure and a device applied to outside of the artery to reduce the risk of bleeding.

Angioplasty and stenting.

If a significant narrowing of the arteries is found on the angiogram, this may be opened during the same procedure as the angiogram. This is done by passing a wire across the narrowing and dilating the narrowing with a small inflatable balloon (angioplasty). On most occasions after angioplasty, a metallic mesh scaffold (similar to the spring in a ball point pen) is left inside the narrowing to keep the narrowing from closing up again (stenting).

What happens after the angiogram?

After the procedure you will be taken to the coronary care ward or the day ward. You will need to rest in the hospital for a few hours. You will probably be able to go home after that (if no stents are inserted), but someone else will need to drive you. If your doctor fixes any of your arteries, you will need to stay in the hospital overnight.

Before you leave, your doctor will tell you when you can drive and do your usual activities again. Any changes to medications and appropriate follow up will be discussed with you.

What are the potential complications from a coronary angiogram?

The most common problems are bleeding, bruising and soreness in the area where the tube was put in. These problems can last for a few days, especially if the tube was put in the leg.

Other problems that can occur include:

- Heart attack
- Stroke (when a part of the brain goes without blood for too long)
- Death
- Kidney damage

A coronary angiogram does involve a small amount of radiation, but the dose is well below the threshold dose that is documented to cause any long-term problems.

Call your doctor if any of the following happen after you go home following a coronary angiogram:

- The area where the tube went in bleeds a lot.
- You get a fever or have pain, swelling, or redness where the tube went in. These symptoms could mean that you have an infection.
- Your leg or hand (depending on where the tube was placed) is weak or numb.