

Patient procedure information about coronary angiography and angioplasty with Dr Guy Wright-Smith.

What is a Coronary Angiogram?

An angiogram is a special type of X-Ray using dye to show if there is narrowing of the coronary arteries. The coronary arteries supply the heart with blood. Narrowing in these arteries can cause chest pain (angina) and a blockage can cause a heart attack and death. This test can also detect problems with the heart valves, or the pumping action of the heart. The result of the test will help your cardiologist to plan the best treatment for you. If the test shows a narrowing or blockage, it may be treated with coronary angioplasty.

How is it done?

The test is performed in the Cardiac Catheter Laboratory by the Cardiologist, assisted by nurses and technicians. The Cardiac Catheter Laboratory is like a small operating theatre. You will be given a mild sedative for relaxation, but you will be conscious during the test. A small tube called a catheter is inserted into an artery; usually in the groin or wrist (a local anaesthetic is used). The catheter is guided into the major artery of the body (called the aorta) and up to the coronary arteries under x-ray control.

What do I do on the day?

Please see admission instructions.

If you are taking blood thinning tablets (anticoagulants), Warfarin, Coumadin or Marevan, your doctor will tell you if you are to stop these and when. If you have not been told, ask Dr Wright-Smith by ringing The Cardiac Centre on 07 5591 6774

Please continue taking all other medications including Aspirin. Coronary Angioplasty patients requires aspirin therapy and another drug called clopidogrel known as Iscover or Plavix, you will be advised by your cardiologist if you need this drug and a script filled out for you in hospital.

If you are diabetic discuss this with Dr Wright-Smith, bring your medication with you. If you are on Metformin (Diabex, Diaformin) do not take this the day before or the day of the angiogram.

What happens during the test?

In the Cardiac Catheter Laboratory you will be assisted onto a firm table and connected to an ECG machine for monitoring throughout the test. Sterile sheets will be draped over you by nursing staff. The groin or wrist area will be prepared with sterile iodine solution, it may be cold. You will be given a mild sedative to make you slightly drowsy, but you will be awake and will not need a general anaesthetic.

A local anaesthetic is injected into the groin/wrist to numb the skin, and then a small tube called a catheter is inserted into the artery. This is guided up through the major artery of the body (called the aorta) until it reaches the coronary arteries, which run over the surface of the heart.

Once the catheter is in position the dye (contrast solution) is injected and the x-ray machine takes moving pictures of the coronary arteries.

You may experience a warm flushing feeling or an urge to urinate when the x-ray is taken of the main pumping chamber of the heart. This lasts for about 5 seconds and then fades, you will be told before this happens and it is of no consequence.

If you have any narrowing in one or more of the arteries requiring urgent treatment, your Cardiologist will discuss this with you at the time. Usually it is possible to repair the narrowing immediately by stretching the wall of the arteries with a small balloon. This is called a "Coronary Angioplasty" or PCI (percutaneous coronary intervention). Usually a small metal coil called a Stent is inserted into the

artery to help keep it open and to prevent it from re-narrowing. It is common to experience chest pain whilst the balloon is inflated which will last for a few minutes and then subside. Should the pain continue or increase in intensity please tell the doctors and you will be given medication to relieve the pain. Your cardiologist will explain the procedure at each step.

Please Let The Doctors Know If You Experience Any Chest Discomfort During The Test.

How long does the test take?

A routine coronary angiogram takes approximately 30-45 minutes. If the procedure progresses to an angioplasty, then it can last 1-2 hours depending on the type of blockage.

What are the risks?

As with many medical tests there are some risks, although a coronary angiogram is generally considered to be quite a safe test. Serious problems during a coronary angiogram are rare (combined risk is <1 in 2000) and include heart attack, stroke, death, the need for urgent coronary bypass surgery (CABG) or a rapid heart rhythm disturbance causing you to faint. The possible complications of a coronary angioplasty are the same as for a coronary angiogram but the chances of having a heart attack or requiring urgent coronary bypass grafts are slightly higher. Approximately one patient in 1 in 1000 suffers a heart attack, needs urgent bypass surgery, or dies. These risks may vary, depending on individual circumstances. The risk of a complication is higher with advancing age, >75, recent large heart attack, diabetes, kidney failure and heart failure. The risks will be comprehensively explained by Dr Wright-Smith before the procedure, please feel free to ask any questions before and after, no matter how trivial they may seem, Dr Wright-Smith would be pleased to answer them.

What happens after my test?

If the angiogram is done from the wrist the tube (sheath) will be removed immediately after the angiogram and a small tourniquet applied, you can sit up and eat and drink immediately.

If the angiogram has been performed from the groin you will be taken into the Recovery Area where the tube from the groin will be removed and a nurse will press on the artery for 10-15 minutes. You will need to lie flat for two hours, keeping your leg straight, to minimize bruising in the groin. Next you will need to sit up for a further two hours, and drink plenty of fluids to flush the kidneys. You should then be able to go home. Once at home you should rest by lying with your legs slightly elevated for the rest of the day. You can perform light activities the next day, but should avoid heavy physical lifting or strenuous activity for five days.

If you have gone on to have an angioplasty you will be moved from the Recovery Area to the Coronary Care Unit for overnight monitoring of your heart. You will usually go home the following day.

How will I get my results?

The coronary angiogram/angioplasty will be discussed with you after the test, and with any family or others as you dictate. Ongoing treatment will also be discussed and the need for any further follow up. Your referring doctor and local doctor will often get the results and a completed letter sent to them within 5 working days.



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