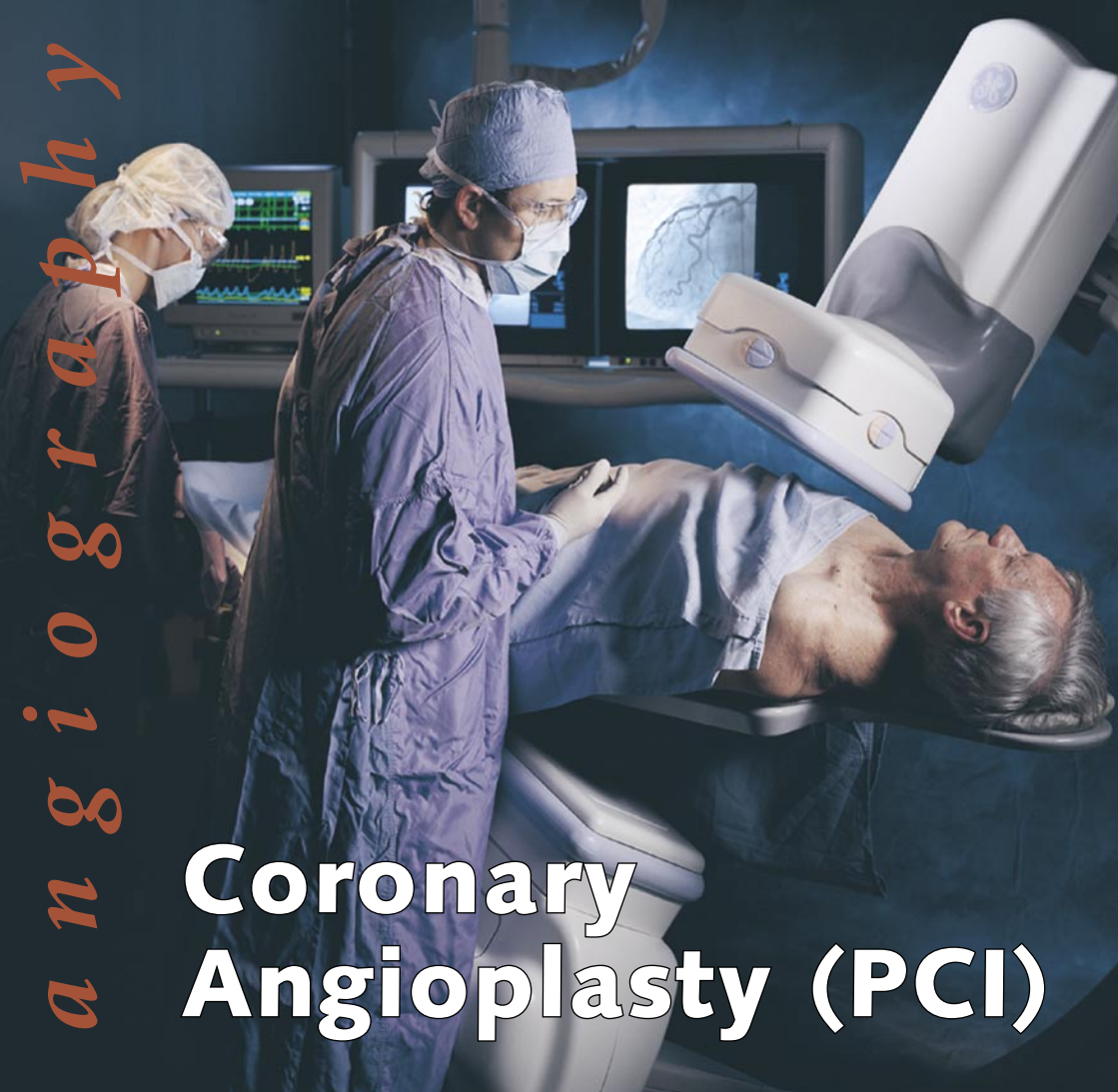


angiography



Coronary Angioplasty (PCI)

A patient's guide

mercy



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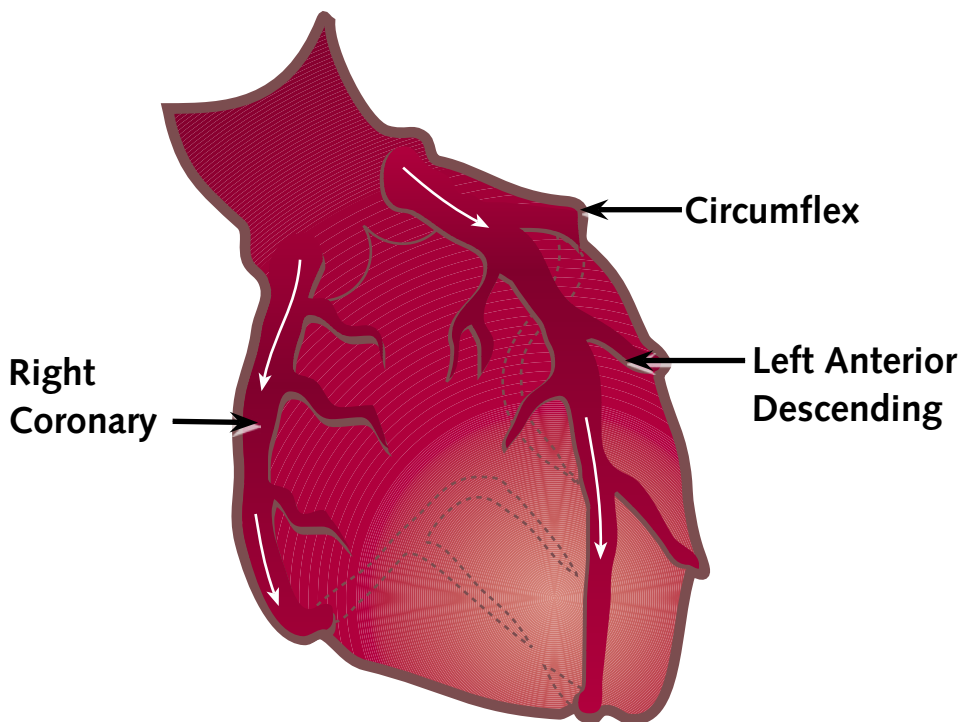
What is Coronary Angioplasty?

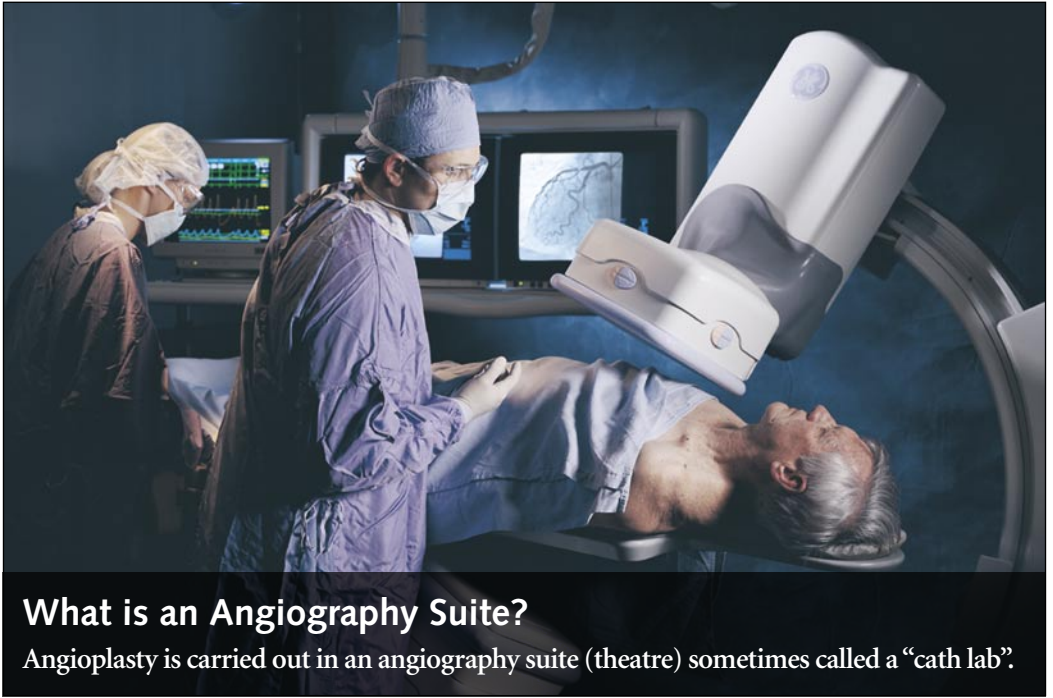
Percutaneous Coronary Intervention (or PCI) means ways of opening up narrowings in coronary arteries using fine tubes called catheters introduced usually from the leg. Most narrowings are treated with balloons and stents (fine mesh stainless steel tubes). Stents reduce the chance of renarrowing.

What are Coronary Arteries?

Coronary arteries are tubes a few millimetres wide that lie on the outside surface of the heart taking blood to the heart muscle.

Just as an engine needs petrol, the heart needs blood to do its job of pumping blood around the body. Slow build up of fatty plaque within the artery wall can cause the artery to narrow leading to reduced blood flow. Clot forming on the plaque may cause angina to worsen suddenly or may cause a heart attack.





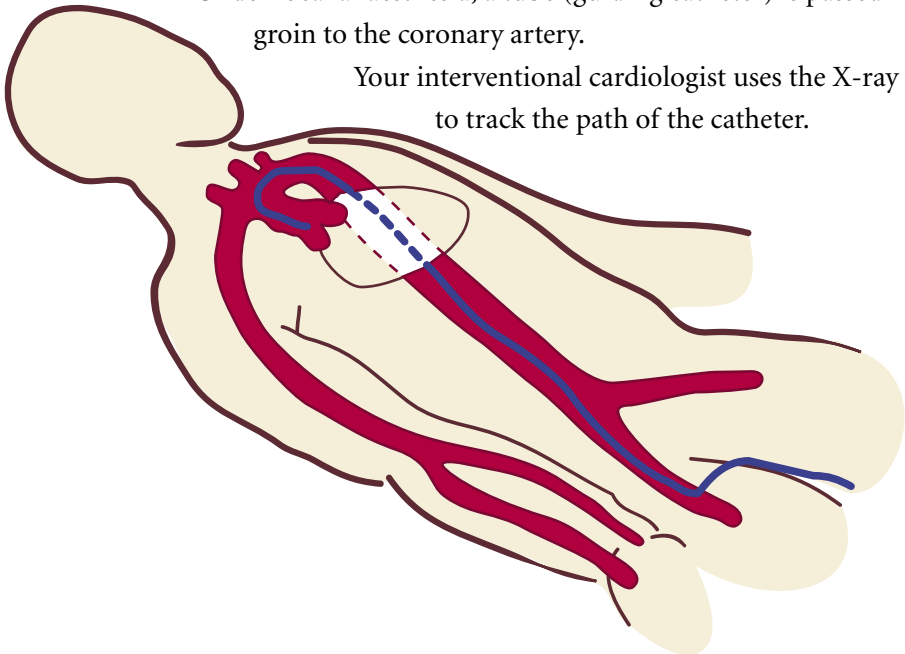
What is an Angiography Suite?

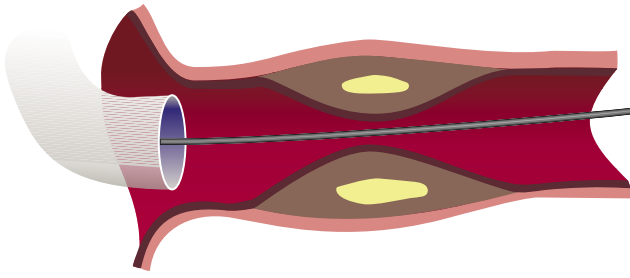
Angioplasty is carried out in an angiography suite (theatre) sometimes called a “cath lab”.

How is an Angioplasty (PCI) performed?

Under local anaesthesia, a tube (guiding catheter) is passed from the groin to the coronary artery.

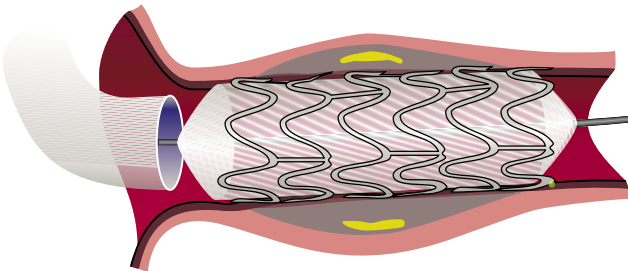
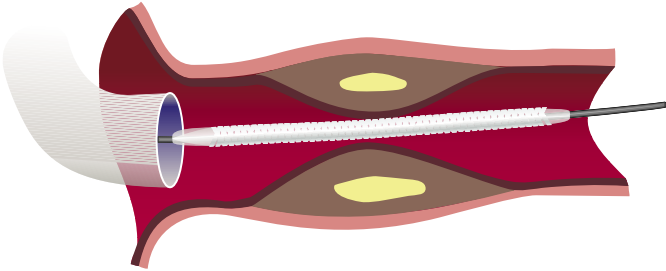
Your interventional cardiologist uses the X-ray screen to track the path of the catheter.





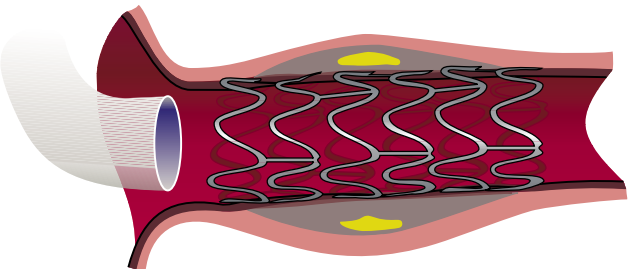
Through the guiding catheter, a wire about the thickness of a hair is passed across the narrowing.

A stent (a fine mesh stainless steel tube that comes squashed down on a balloon) is directed across the narrowing by the wire.



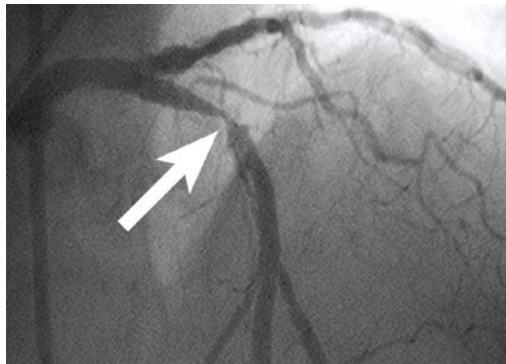
The balloon is inflated to expand the stent and artery. The stent is pushed into the artery wall holding the artery open.

The balloon is deflated and removed leaving the expanded stent in place. Once expanded the stent cannot move. For some patients the artery is widened by a balloon alone.

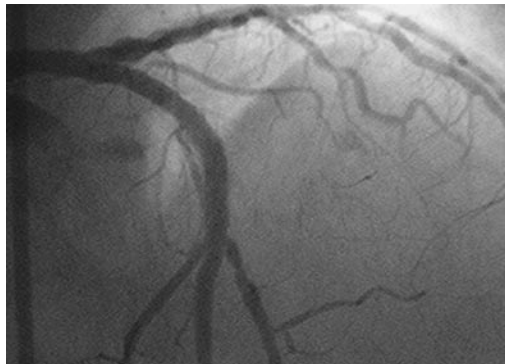


What does the narrowing look like on the x-ray screen?

Before stenting



After stenting



What will I feel?

You will be lightly sedated but awake throughout. You will feel the local anaesthetic injection into the groin. You cannot feel the tubes moving inside your arteries but you may feel discomfort similar to your usual angina when the balloon is inflated. You should tell your interventional cardiologist if you are experiencing any pain. Usually people have little or no discomfort. Severe pain is very rare nowadays. Your angioplasty will usually take longer than your angiogram.

What should I do?

Angiography office staff will arrange your admission time (usually two hours before angioplasty). You should not eat during the four hours before angioplasty, but you may drink water until admission. You should take your usual medication including aspirin at your usual times with a small glass of water. If for some reason you are not taking aspirin, please tell your interventional cardiologist. If you take insulin, you and your interventional cardiologist will need to discuss dose and timing.

What happens after Angioplasty?

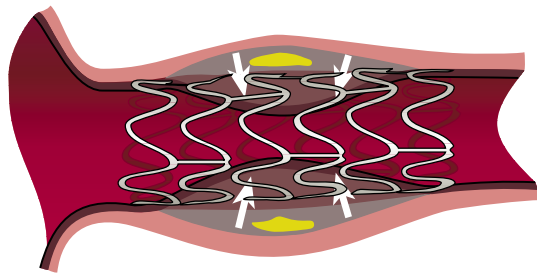
The short sheath is removed from the groin shortly after the angioplasty. For the first hour or so after sheath removal, you should lie still in bed. After this you will sit up in bed for an hour or so, then you will be able to get out of bed. Patients usually stay overnight.

What complications might occur?

- Bruising of the groin sometimes occurs and may be uncomfortable. If, after discharge, your groin becomes increasingly painful or a lump is becoming bigger, you should contact your interventional cardiologist. There might be a false aneurysm (a blood filled outpouching from the artery) that is usually treated by an injection under ultrasound control.
- If you have chest pain in hospital after the angioplasty you should report this. Most chest pain turns out to be unimportant and is thought to be due to stretching of the coronary artery by the stent. Occasionally pain is due to clot reducing blood flow in the stent.
- Uncommonly during angioplasty the artery becomes worse rather than better so that in less than one in 500-1,000 patients, urgent bypass surgery is needed.
- Rarely there may be damage to the heart muscle
- Stroke or death is very rare.
- Severe allergy to the x-ray dye (contrast) is exceptionally rare.

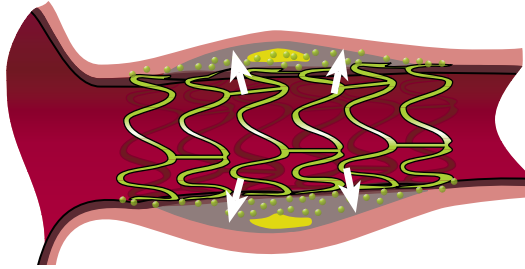
Restenosis

Although stents reduce the chance of renarrowing of the angioplasty site, it can still occur. It is due to the healing cells growing through the mesh of the stent. It is most common between six weeks and six months after stenting but is exceptionally rare beyond six months. It is more likely to occur in small diameter vessels, long narrowings and in diabetic patients. If it does occur, it is usually possible to treat the artery again.



Drug eluting stents

These are coated with a medication to abolish or substantially reduce the chance of renarrowing and the need for repeat treatment. Simple narrowings with a low chance of renarrowing can still be effectively treated with conventional stents.



Discharge information



MEDICATION. Your cardiologist will discuss with you what medication you should take. Patients should take aspirin indefinitely. **You should take one Clopidogrel (Plavix) tablet daily as long as your cardiologist recommends.**



EXERCISE. You should build up activity gradually so that in about a week you are back to full activity. For the first few days, to reduce the chance of groin problems, you should be careful with lifting. It is a good idea to develop a regular exercise programme such as walking, cycling, or swimming briskly enough to make you slightly short of breath for half an hour most days of the week.



RETURN TO WORK. Most patients can return to desk jobs within a few days. For the first day back at work, some people prefer to work a part day. If your job involves hard physical work, you may need more than a week off work.



It is extremely important to stop **smoking**.



Many people cannot control their blood **cholesterol** by diet because their bodies make too much cholesterol. It is important for these people to have medication to lower cholesterol.



If you have concerns in the first few days, contact your interventional cardiologist.



In the unlikely event of you having severe pain lasting more than 20 minutes, call an ambulance.



FOLLOW-UP. **You will need to visit your general practitioner. You should make an appointment to see your usual cardiologist 1-4 weeks after angioplasty.**



Answers to other commonly asked questions



A stent will not set off alarms at the airport because it does not contain enough metal.



Bursting of an artery with angioplasty does not occur. Very rarely, because of blood leakage from the angioplasty site, it is necessary to drain the sack around the site (pericardial space).



Once in place, a stent cannot move.



It is very uncommon for cholesterol to break off from the angioplasty site and pass downstream.



You are advised to avoid MRI scans for the first month after stent placement



Angioplasty (and angiography) can be performed from the arm in patients with blocked leg arteries.

*Compiled by John Ormiston
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Medical Director, Mercy Angiography*

More information is available on-line at www.mercyangiography.co.nz