

# Angiogram, Angioplasty and Stents

## What to expect



# Medical Information Guide

## Coronary Angiogram, Angioplasty & Stents

This guide provides information for Medibank Private members and their families about coronary angiogram (angiography), angioplasty and stents.

It is important that you are well prepared for your healthcare experience, and know what to expect at key stages prior to, during and following these procedures.

It is also important that you discuss your particular circumstances in detail with the healthcare professionals who will be treating and caring for you. You should be confident in the treatment choices you make with your healthcare team and ensure that they are aware of your individual needs.

## What is coronary artery disease?

Coronary artery disease occurs when a buildup of plaque (fatty deposits, cholesterol and calcium) sticks to the walls of the arteries, causing narrowing and blockages, and reducing blood flow to the heart. Such blockages often cause pain known as angina. If disease is untreated, clots may form and result in a heart attack.

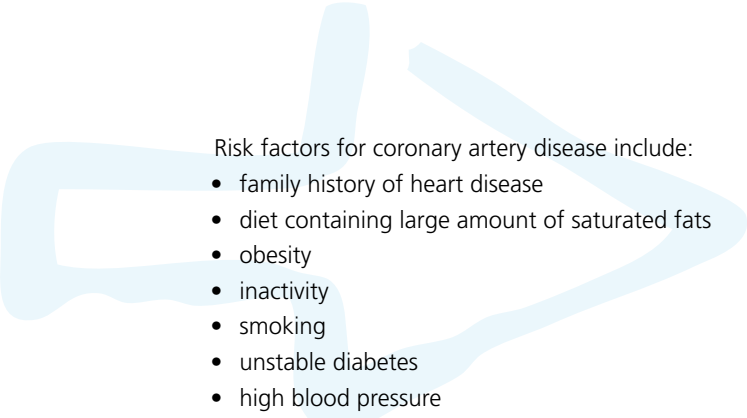
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Call us on 13 23 31 before you go to hospital to find out what you're covered for, any likely additional costs you may have to pay as well as for any other advice you may need.

The information provided in this guide is current at the time of issue, July 2008.



Risk factors for coronary artery disease include:

- family history of heart disease
- diet containing large amount of saturated fats
- obesity
- inactivity
- smoking
- unstable diabetes
- high blood pressure
- high cholesterol

**Coronary angiography** is a diagnostic procedure performed to detect problems with the heart and blood vessels. An angiogram is a specialized x-ray which looks for abnormalities of your heart muscle and valves, and to see whether coronary arteries are narrowed or blocked.

**Angioplasty** is a surgical procedure in which a special balloon is inserted to open the artery at the point of blockage, improving blood flow to the heart. If your specialist has recommended angioplasty, the procedure may or may not include stents.

A **stent** is a flexible wire mesh tube which is inserted into the expanded artery to hold it open and allow blood flow. There are two types of stents, the plain metal variety (which are usually used in acute situations) and the drug-release type which dispurses the drugs while in place to assist in dilating the artery. Angiogram and angioplasty/stents are often performed as part of the same procedure.

### Why are coronary angiogram and angioplasty/stents performed?

Although angiography is an invasive procedure, it is also the most conclusive tool to diagnose suspected heart disease and determine best treatment options. Dilation of blocked arteries through angioplasty and keeping arteries open with stents improves blood flow to the heart, greatly reducing risk of heart attack and irregular heart rhythms.

## Referral to a specialist

Coronary angiogram, angioplasty and stents are specialised procedures usually performed by a cardiologist. Your GP can recommend and refer you to a suitable specialist.

As well as advice from your GP, you may wish to know more about the procedures and what you can expect from your specialist. The following website provides further information about angiogram, angioplasty and stents: **[www.mayoclinic.com](http://www.mayoclinic.com)**

Cost of treatment may also be an important consideration when selecting a specialist. A list of cardiologists who have participated in Medibank Private's GapCover Scheme in the past can be found on our website **[medibank.com.au](http://medibank.com.au)**

Note: Specialists can choose to participate in GapCover on a **case-by-case** basis. For more information about GapCover, please visit our website or refer to our '*Going to Hospital*' booklet.

## What should I discuss with my doctor or specialist?

- discuss the treatment options for your condition and why angiogram and angioplasty/stents are being recommended
- what are the possible outcomes for each of the options you have discussed
- what is the likelihood of each of these outcomes occurring
- why your doctor has recommended a particular specialist in your case
- what experience does the specialist have, for example number of angiogram and angioplasty/stents performed and outcomes for patients, including complication rates
- possible risks and outcomes associated with the procedure
- when any pathology results will be known
- typical recovery time
- arrangements for getting home and after care
- possible further treatment

Ideally, you should make sure that you fully understand the procedure that is going to be performed. Your specialist should explain in detail how the procedure is done, and what preparation you should make. Your doctor may provide you with written material to read at home.

Your Medibank Private *'Going to Hospital'* booklet contains further questions that you may wish to ask your doctor, including information on obtaining informed financial consent.

### **Where is it done?**

Angiogram and angioplasty are usually carried out as day procedures in a specialized day surgery or cardiac catheter laboratory. An overnight hospital stay is generally required where stents are inserted.

### **How long will it take?**

Time required for the procedure will vary with individual circumstances, but a routine angiogram typically takes approximately 30 to 45 minutes, with up to four hours recovery time following the procedure.

Angioplasty and insertion of stents may take from 30 minutes to several hours to perform, depending on the nature and extent of the coronary disease.

### **Who is involved?**

Healthcare professionals usually involved in the procedures are:

- your cardiologist
- anaesthetist (dependant on medical history – specialist will advise)
- radiologist for necessary x-rays
- pathologist for necessary blood tests
- specialised nurses will assist with the procedure and your recovery

## How to prepare

Your specialist should provide detailed advice on the preparation required in your particular case, but in general:

- you will need to fast (have nothing to eat or drink) for six hours prior to the procedure
- you should obtain medical advice about taking prescribed medications prior to the procedure

## What happens on arrival at the day surgery or hospital?

When you arrive at day surgery or hospital, you will be admitted. Necessary paperwork will need to be completed.

Prior to the procedure your specialist will ask you to sign a consent form, indicating that you give him or her permission to perform the procedure and that you understand all potential risks and complications.

## What to expect during angiogram and angioplasty/stents

Following admission, you will be taken to the procedure room and prepared for the procedure. An anaesthetist may be present during your procedure if you have any substantial risk. Please check with your specialist to see whether one will be necessary in your particular case.

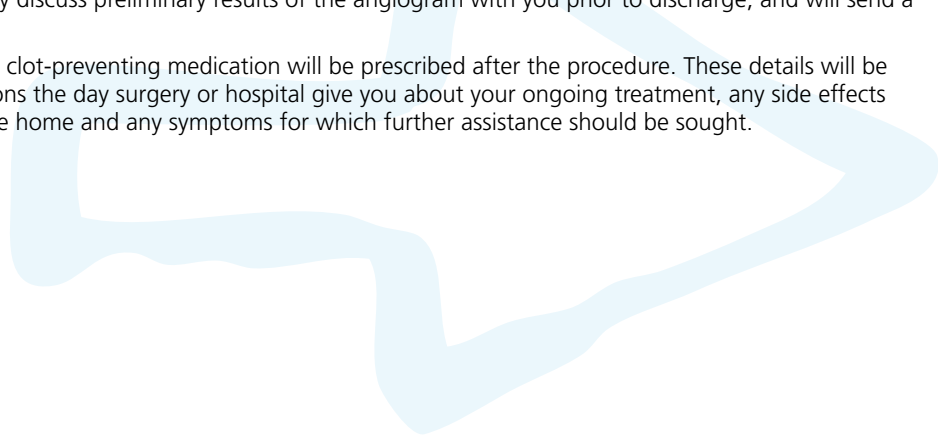
Prior to an **angiogram**, an insertion site is prepared. A small area of your body, usually the groin, is shaved. You will be given a local anaesthetic to numb the skin at the site, and you may also be given a mild sedative to help you relax. Your doctor will insert a small catheter (a thin hollow plastic tube) through the skin and into the blood vessel. The catheter is then threaded through the aorta (the largest artery in your body) until it reaches the coronary arteries. A special contrast dye is injected and x-rays are taken as the dye moves through the blood vessels. The doctor watches progress of the catheter via these x-rays transmitted to a television monitor. You will not be able to feel the catheter inside you, and you may see the images and talk to your doctor during the examination. At the end of the procedure, the catheter is removed and the insertion site compressed until all bleeding has stopped.

When **angioplasty/stents** is performed, a tiny angioplasty balloon is inserted via the catheter and into the narrowed artery, stretching and widening the artery and pushing the materials causing the blockage to the artery walls. When the balloon is deflated, if the blockage recurs, or the cardiologist thinks the blockage may return, one or more stents will be inserted. The stent is a flexible mesh tube which is inserted using the balloon catheter. The balloon is inflated into the blocked artery and the stent expands, propping the artery open. The stent stays in place after the balloon is deflated and removed. Some stents are coated with a slow release medication which helps to keep the artery open.

### What happens after angiogram and angioplasty/stents?

After an angiogram you will be monitored in the recovery area prior to going home. If you have had an angioplasty/stents, you will have an overnight admission, during which time you will be closely observed. In either case, you should arrange for a friend or relative to accompany you when discharged, as you should not drive yourself home. Your specialist will usually discuss preliminary results of the angiogram with you prior to discharge, and will send a report to your GP.

In some cases the use of clot-preventing medication will be prescribed after the procedure. These details will be included in the instructions the day surgery or hospital give you about your ongoing treatment, any side effects you may experience once home and any symptoms for which further assistance should be sought.





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