



**Royal Berkshire**  
NHS Foundation Trust

**Coming in for  
angioplasty and stent  
Information and advice for  
patients**

**Jim Shahi Unit**

**Tel: 0118 322 6502**

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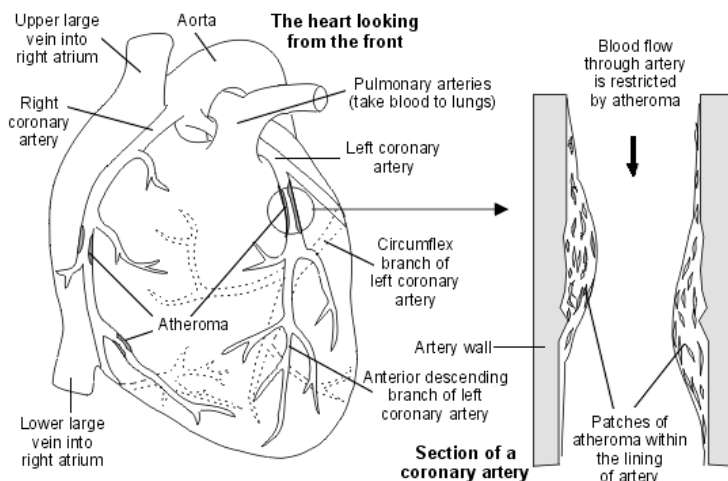
This booklet has been produced by the staff to help answer some of the questions you may have about your angioplasty and stent. It is only a general guide and may not answer all your questions. Please ask the doctors or nurses if you have any particular questions, there is a blank page at the back of this booklet if you wish to write them down.

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## Why do I need angioplasty?

The heart is a muscle that pumps blood throughout your body, delivering nutrients and oxygen to the tissues. For the heart muscle to work effectively and remain healthy, it requires a good supply of oxygen. This oxygen is supplied to the heart muscle via the coronary arteries.

The result of your angiogram (cardiac catheterisation) has shown that you have coronary artery disease, and that there is narrowing (stenosis) of one or more of your coronary arteries. The narrowing is often due to the build up of fatty deposits on the inner walls of the coronary arteries called atherosclerosis.



Your doctor has advised you that the appropriate treatment for this condition is Percutaneous Coronary Intervention (PCI), also known as angioplasty, and usually a coronary stent. Throughout this booklet we will refer to the treatment as 'angioplasty'.

## What is angioplasty and stent?

Angioplasty is a procedure that uses a balloon catheter to increase the diameter of stenotic coronary arteries, thus increasing overall blood flow. A stent is a small metal coil/mesh tube that is placed in a narrowed artery via the balloon catheter. A stent aims to hold the artery open and helps to reduce the rate in which the artery can re-narrow.

Angioplasty is not a cure, so it is still necessary to change any unhealthy habits (risk factors) that contribute towards heart disease.

## Leading up to the procedure

At the moment the waiting list for angioplasty is 4-6 weeks. Please read your appointment letter carefully as it will contain some important instructions.

You will need to go to the pathology (blood tests) department at the Royal Berkshire Hospital or go to your own GP one week before your appointment to have some blood taken. It is essential that you take the form given to you with your appointment letter.

## On the day of your procedure

CLEAR WATER IS PERMITTED BEFORE YOUR PROCEDURE. You should take all your normal tablets on the day of the procedure (there are some exceptions, please refer to your appointment letter).

You will be asked to come to the Jim Shahi Unit on Level 1, Battle Block at the Royal Berkshire Hospital.

One relative can stay on the ward with you or alternatively they can wait in one of the many tea bars or café areas.

You will need to bring the following:

- A list of your tablets and the dosage.
- Dressing gown and slippers
- Overnight wash bag
- Please wear one layer of light clothing over your underwear, e.g. T-shirt or short sleeved shirt or blouse and casual trousers/jogging pants. Please ensure this garment is plain, free from metal attachments or design and of low cost to yourself, as it may get damaged during your procedure.

You will remain in this clothing through-out your stay. Ladies are required to remove their bra.

You will be either discharged on the same day or transferred to a ward after the procedure for your overnight stay.

On arrival, a member of staff will check your name and details and your blood results will be examined to make sure they are within the correct limits for angioplasty.

A cannula (small plastic tube) will be placed into a vein in your hand or arm. Any medication will be given through this tube.

Your ECG, blood pressure and pulse will be recorded and the doctor will explain the procedure to you again and will ask you to sign a consent form.

- The Jim Shahi Unit is an emergency department and there maybe unforeseen delays. Please bring something to read or occupy or time.

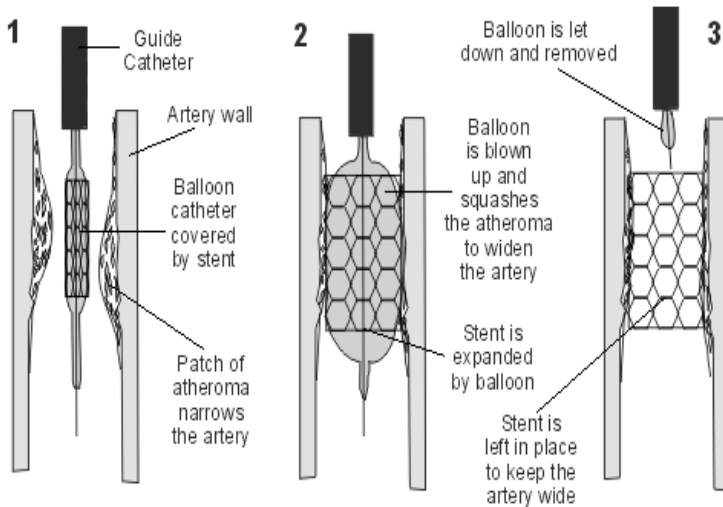
### What happens during the angioplasty?

This procedure is very similar to an angiogram but it does take longer -

approximately 60-90 minutes.

Angioplasties are performed either through the groin using the femoral artery or the wrist via the radial artery. The procedure is done under local anaesthetic just like the diagnostic angiogram. A drug may be given to make you feel relaxed during the procedure.

A sheath is introduced into the artery, and you may be aware of a pushing sensation as this is done, but it usually does not hurt.



The catheter is moved into the artery that is narrowed. A guide wire is inserted and positioned through the blockage. The balloon is moved over the guide wire until it is in the narrow segment. Once in position the balloon is inflated and reduces the narrowing by pushing and compressing the fatty deposits, known as plaque, to the side of the artery wall.

The balloon is inflated and deflated several times; you may feel some chest discomfort during the inflation of the balloon. Under x-ray control the doctor will check for improvement of blood flow.

## Inserting a stent

Once the plaque has been compressed by the balloon, the stent is carefully positioned. The stent balloon is then inflated which causes the stent to expand. The expanded stent further compresses the plaque against the arterial wall. The balloon catheter and guide wires are then removed.

New tissue will slowly grow over the stent. To prevent any clots from forming around the stent, while your own tissue is growing, your doctor will prescribe an anti-platelet medication, for example, clopidogrel / ticagrelol which you will have to continue taking after your procedure.

## After the angioplasty and stent

During the procedure you will have been given a drug called *heparin*, which helps thin the blood. The blood will return to normal on its own accord. You may hear this referred to as 'clotting time'. If the procedure is done via the groin, a plug is usually used to seal the artery. If the procedure is done via the wrist, a pressure band is secured for 1-2 hours post procedure to stem the bleeding.

Once on the ward the nursing staff will frequently monitor your blood pressure, pulse and check the circulation in either your leg or wrist. You will be restricted to bed rest for approximately 2 hours. Most patients are able to go home the same day.

After the procedure you must be driven home. In the case of very severe infirmity, transport can be arranged through your GP.

## Follow up

You will be sent an outpatient appointment in the post for six to eight weeks after your procedure with the Cardiac Support Nurses.

## Recognised risks and potential benefits

Angioplasty is a very good treatment for angina in those patients with suitable coronary anatomy. Successful angioplasty should reduce your angina, increase your exercise tolerance and reduce your need for anti-anginal medications.

Nevertheless, as is the case for bypass surgery, it is only a treatment and not a cure for coronary disease. The chance of the angioplasty being successful is over 95%. After successful angioplasty, it is still extremely important to control your known risk factors (e.g. smoking, cholesterol, diabetes and blood pressure) and to continue on medical treatment (e.g. aspirin, B-blocker, statin, ACE inhibitor) as appropriate. We can deal with the narrowing in your arteries but it is your responsibility to lead a healthy lifestyle afterwards. Only by doing this may we maximise your chance of avoiding future cardiac events.

The test is very safe, however, there are possible complications associated with this procedure;

### Minor risks

- Damage/bleeding to the artery (where the tube is inserted).
- Developing abnormal heart rhythms.
- Worsening of kidney function if this is already abnormal.
- Allergic reaction to contrast dye.
- Re-narrowing of the artery may occur which can usually be treated with a repeat procedure.

## Major risks

- Damage to one of the coronary arteries causing it to narrow or block (2-3 in every 100 patients). This may cause a heart attack and may require by-pass surgery.
- Having a stroke (less than 1 in every 400 patients).
- Death (less than 1 in every 400 patients).

The risks of angioplasty are less than those of bypass surgery and the benefits of a successful angioplasty make the risk acceptable in most cases.

The medical staff will discuss possible complications and answer any outstanding queries you have before the procedure is carried out.

## Going home

- You should not drive in the first week following the procedure. If you have an LGV or PCV licence you are not permitted to drive these vehicles for at least six weeks.
- It is often possible to return to work after one to three weeks, depending on the type of work you are involved in.
- It is better to avoid heavy lifting and any other strenuous activity for two weeks.
- It is important you continue to adopt a healthy lifestyle, watch your weight, exercise and eat healthily. If you would like information on any of these subjects please ask the ward staff.

If you have any questions about the information in this leaflet ask the ward staff or contact one of the cardiac support nurses - the number is on the back of this leaflet.



## Useful contacts

Royal Berkshire Hospital	0118 322 5111
Jim Shahi Unit	0118 322 6502
Cardiac Appointments	0118 322 6676
Cardiac Support Nurses	0118 322 6638
Cardiac Care Unit	0118 322 6684
Trust website:	<a href="http://www.royalberkshire.nhs.uk"><u>www.royalberkshire.nhs.uk</u></a>
NHS 111:	111
NHS Choices website:	<a href="http://www.nhs.uk"><u>www.nhs.uk</u></a>
British Heart Foundation:	<a href="http://www.bhf.org.uk"><u>www.bhf.org.uk</u></a>

### West Berkshire Heart Support Group – ‘Heartbeats’

The local heart support group hold regular monthly meetings in Reading, Earley and Newbury. For details see Heartbeats magazine, posters or ask nursing staff for details.

Heartbeats website: [www.heartbeats-berkshire.co.uk](http://www.heartbeats-berkshire.co.uk)

Notes:

This leaflet is printed privately for the Cardiac Fund. It was set up in 1976 for the purpose of providing cardiac services that would otherwise not be available through National Health resources. Our Cardiac Laboratory was largely equipped through the fund and many other areas in the Department have also benefited from equipment and staff training.

If you would like to contribute, cheques should be made payable to: The Cardiac Fund, and sent to one of us.

Dr Nicos Spyrou BSc MD FRCP, Dr Will Orr FRCP

Dr Charlie McKenna BSc MD FRCP, Dr Jon Swinburn MA MD MRCP

Dr A Elkington MD FRCP, Dr Sachdev BSc MBBS MRCP

Dr Lindsey Tilling MRCP PhD, Dr Sacha Bull MA MRCP D Phil

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