



# Percutaneous Aortic Balloon Valvuloplasty

## 1. What is aortic stenosis?

Aortic stenosis can be a problem as you get older. The aortic valve is an important heart valve. It controls the amount of blood that leaves the heart to be pumped around the body.

It allows the blood to flow in one direction from the heart to the rest of the body. Sometimes the valve becomes narrow because of disease. This is called aortic stenosis.

The blood is no longer able to escape freely from the heart and supply the body. If you have this problem, you may get chest pain, fainting or shortness of breath (feeling puffed).

## 2. What is a percutaneous aortic balloon valvuloplasty?

A valvuloplasty is a procedure where the valve is widened using a balloon. This will allow the blood to flow more easily. The procedure may also involve the following:

- Angiogram to show any narrowing or blockage in your coronary arteries.
- Right Heart Catheter to measure pressures in the heart.
- Echocardiogram is an ultrasound of the heart. This can be either intracardiac or oesophageal.

A needle with a tube connected to it will be put in your arm. This is called an intravenous line or IV.

**Angiogram** - After an injection of local anaesthetic, a fine tube (catheter) is put in the artery into the groin/arm. The tube is passed into each coronary artery. A series of video pictures are taken using x-rays and a contrast medium (x-ray dye). Contrast medium may be injected into the main pumping chamber of the heart (left ventricle). This is to measure the size of the heart and how well it is pumping.

**Right Heart Catheter** – a soft balloon ‘pressure catheter’ is put into the vein in your groin. It is passed up until it reaches the heart and then goes into the blood vessels of the lungs. Pressure in the lungs and heart are recorded.

**Echocardiogram** – an ultrasound which uses soundwaves to form a picture of the heart. This can be either via the oesophagus (food pipe) or via the catheter already in the artery.

**Aortic Valvuloplasty** - A wire is passed along the blood vessel, up to the heart, until it gets to the aortic valve. The doctor uses x-ray imaging to see the wire. Once the wire is in place, a balloon is passed along the wire and into the damaged valve.

The balloon is pumped up where the valve is narrowed. This widens the valve, as far as possible. The balloon may be pumped up several times.

At the end of the procedure the wire and balloon are removed.

The flaps (leaflets) of the valve are usually very badly damaged by disease. The balloon is not able to get rid of all the narrowing. The balloon only provides some short-term relief.

This procedure is only done to relieve your problems caused by your valve disease. It is not a long-term cure.

- This temporary repair lasts about 6 to 12 months. It is likely your problems will return within 1 to 3 years.
- Depending on your illness, a repeat balloon procedure may be needed.
- You only have this procedure if you are not suitable for heart surgery.

## 3. Anaesthetic

This procedure will require a local anaesthetic. Sedation may also be given.

## 4. What are the risks of this specific procedure?

In recommending this procedure your doctor has balanced the benefits and risks of the procedure against the benefits and risks of not proceeding. Your doctor believes there is a net benefit to you going ahead. This is a very complicated assessment.

There are risks and complications with this procedure. They include but are not limited to the following.

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**Common risks & complications (> 5%)** include:

- Minor bruising at the puncture site.
- Abnormal heartbeat lasting several seconds, which settles by itself.
- Major bruising or swelling at the groin/arm puncture site.
- A stroke. This can cause long term disability.
- Death is possible following the procedure or due to the underlying heart condition.

**Uncommon risks & complications (1- 5%)** include:

- Abnormal heart rhythm that continues for a long time. This may need an electric shock to correct.
- Embolism. A blood clot may form and break off from the catheter. This is treated with blood thinning medication.
- The valve may leak or can be damaged.

**Rare risks & complications (< 1%)** include:

- Surgical repair of the groin/arm puncture site or blood vessel.
- Heart attack.
- Loss of kidney function due to the side effects of the x-ray dye.
- Infection. This will need antibiotics.
- An allergic reaction to the x-ray dye.
- A higher lifetime risk from x-ray exposure.
- A hole is accidentally made in the heart or heart valve. This will need surgery to repair.
- Damage to the nerve in the leg.
- Emergency heart surgery due to complications with this procedure.
- Skin injury from radiation, causing reddening of the skin.

Disclaimer: This brochure has been prepared for information and for informed consent only and is not medical advice. All care has been taken to ensure the accuracy of the information. This information may be changed or updated without notice.

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