

Treatment for Pulmonary Stenosis

Information for patients

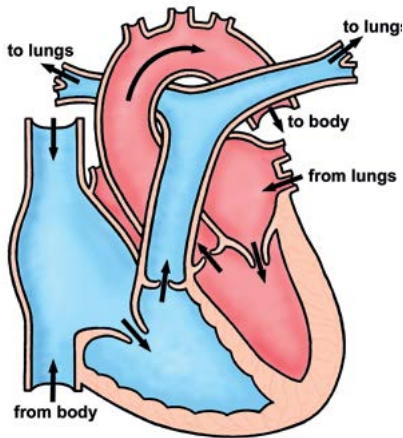


This leaflet aims to give you an overview of a condition called pulmonary stenosis and its treatment using a keyhole approach.

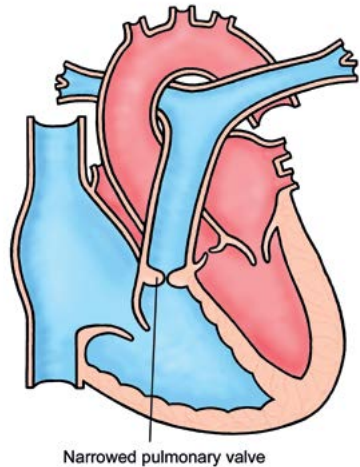
In this condition, the valve between the right sided pumping chamber of the heart and the lung arteries (pulmonary valve) is narrowed.

The muscle of the right sided pumping chamber (right ventricle) has to work harder than normal to pump blood through the narrowed valve and the muscle can become thickened. In most cases it is not a serious problem and needs no treatment, but if the narrowing is very severe, the heart cannot pump normally and this may require treatment.

Normal Heart



Pulmonary Stenosis



Treatment

Balloon Valvuloplasty

If the valve is severely narrowed, treatment may be needed; which is usually keyhole treatment rather than open heart surgery. Most cases can be treated by stretching the narrow valve open with a balloon (called "balloon valvuloplasty"). This is done under general anaesthetic and involves passing a long tube with a collapsed balloon on the end of it (a balloon catheter) into the vein at the top of the leg and feeding it into the heart across the narrow valve.

Using X-ray pictures, the balloon is positioned in the narrow valve and is blown up, stretching the valve open. This is usually a very effective form of treatment and is very low risk - the chance of death during the procedure is less than 1 in 100. Usually only one night's stay in hospital is necessary. Sometimes if the narrowing is only partly relieved by the balloon so it may be worth repeating the procedure at a later date.

Because the thickened heart muscle (due to the narrow valve) itself can cause some narrowing, it is not always possible to tell straight after the procedure exactly how successful it has been - sometimes we have to wait for a few weeks for the thickened heart muscle to return to normal. In a small proportion of patients, the thickened heart muscle doesn't return to normal and if this causes significant narrowing, then heart surgery is needed to remove some of the muscle.

Surgical treatment

Sometimes the pulmonary valve cannot be stretched open using a balloon and open heart surgery will be needed. This involves opening the chest (usually in the middle at the front) and the function of the heart and lungs being taken over by a machine so the surgeon can open the heart and cut the narrow valve open. There is a very small risk of death (less than 1 in 100) and a very small risk of major complications such as brain damage (less than 1 in 100). Other complications such as fluid collecting around the heart or lungs can occur after the operation but these are very rarely serious. After the operation you would need to stay in hospital for about 5-7 days, although a longer stay might be necessary if there are any complications.

Pulmonary Stenosis - YouTube

<https://www.youtube.com/watch?v=ye9glzqqWfA&list=PLoTRkIWm7TS-s-mHjgQuZhit77SPNGG89&index=8>



The long-term future

If you have not needed any treatment by the time you become an adult, you are unlikely to need treatment, but in rare cases the valve can become narrower in later adult life. It is therefore important to attend a specialist cardiology clinic, to monitor your heart from time to time.

Patients who have a good result from balloon stretching of the valve or surgery usually do not need any further treatment for narrowing.

However, after any kind of treatment for pulmonary stenosis, the pulmonary valve never works completely normally, and will leak to some extent (some of the blood pumped out of the heart to the lungs flows back into the heart through the valve). If you have a leak on the valve there is a chance that you may need surgery to replace or repair the valve in later life.

Lifestyle issues

You should not be restricted by your heart condition, and we would encourage you to follow an active lifestyle to maintain your health.

If you are thinking about starting a family, talk to your cardiologist prior to getting pregnant. We may want to some more tests to assess your heart function but most women cope very well with pulmonary stenosis and have no issues in pregnancy.

Good dental hygiene is important, to prevent endocarditis (an infection within the heart). It is important to visit the dentist regularly. **Some people require antibiotic prophylaxis before invasive dental work.** Please ask your doctor or nurse if this applies to you. Due to the increased risk of infection in the heart, we would also advise against body piercing and tattoos as these may introduce bacteria into the bloodstream.

Other advice

If you choose to have a balloon valvuloplasty you will be placed on the waiting list.

You will receive a letter through the post with your procedure date.

We try to give you around 4 weeks' notice but it's often not possible for us to give you more than a week or two notice of the date of your procedure.

Please contact the secretary as soon as you receive your letter to confirm on telephone number **0113 392 8184** or email leedsth-tr.paedcardcathlist@nhs.net.

This is very important, if you do not confirm in good time your slot will be offered to someone else.

You will receive a telephone preassessment call approximately 2 weeks prior to the date of the procedure

If you are taking an anticoagulant drug (blood thinner) this should be stopped in advance (usually around 3 days). A nurse will contact you to advise upon this around a week in advance of the procedure.

If you receive the date for your procedure and become unwell, or something has changed since your clinic appointment, please contact the specialist nursing team who will advise whether any further tests are necessary. After the procedure you cannot drive for 2-3 days.

We appreciate it can be quite a wait between your clinic appointment and your procedure so, if in the time waiting for your procedure you have any questions or concerns, then please contact the specialist nursing team who will be happy to assist you.

Contact details

Dr Bentham / Dr Velasco / Dr Kang secretary

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Specialist Congenital Intervention Nurses

Email: leedsth-tr.ccins@nhs.net

Adult Congenital Heart Disease Specialist Nurses

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