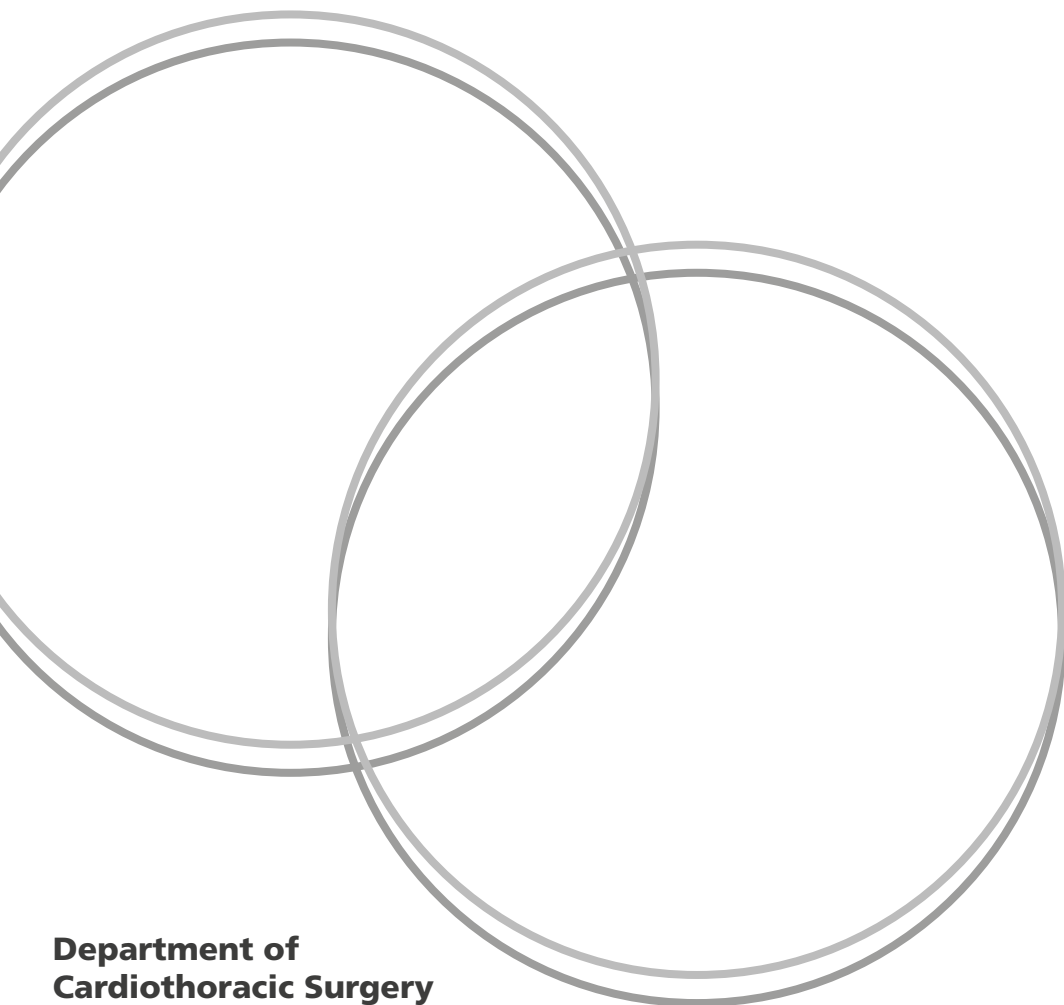




Oxford University Hospitals
NHS Foundation Trust

Heart Valve Surgery

Information for patients



Department of
Cardiothoracic Surgery

What is heart valve disease?

Your heart contains four valves which make sure that when the chambers of the heart contract, the blood flows in the right direction. These valves can be damaged, for example by a heart attack or illness; heart valves may also be abnormal from birth. A defective valve can affect the flow of blood through the heart.

There are two main types of valve problem:

- The valve opening may be narrowed, which reduces the flow of blood through the valve - this is called stenosis.
- The valve may leak, allowing blood to flow in the wrong direction - called regurgitation.

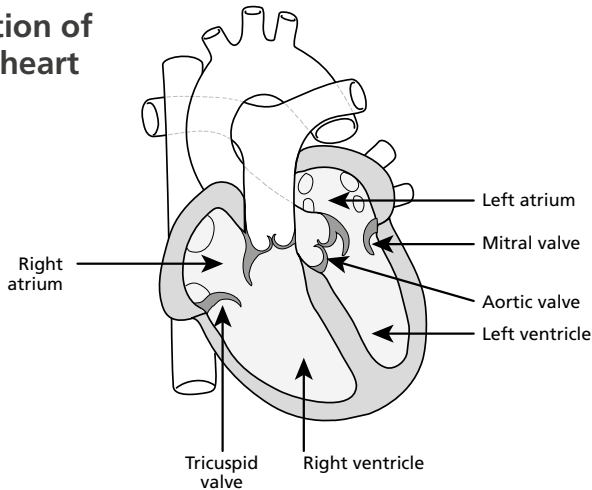
Any of the four heart valves can be affected, but it is usually the Mitral (Inlet) or the Aortic (Outlet) valve that have problems. Both are located on the left side of the heart.

These conditions can put an extra strain on the heart. They may also affect the drainage of blood from the lungs to the heart, causing a build up of fluid on the lungs, which may then result in breathlessness.

The drainage of blood from the rest of the body to the heart may also be affected, causing swollen ankles. Occasionally patients may suffer from chest pain, palpitations, dizziness or blackouts.

Surgical treatment has a very good success rate for severe valve disease and is the treatment of choice.

Cross section of a normal heart



What the surgery involves

There are two types of valve surgery: valve replacement and valve repair.

- **Valve replacement** is when the damaged valve is removed and replaced with another valve - normally either a mechanical valve or a biological valve (from animal tissue). Occasionally a preserved human valve may be used.

Mechanical valves last longer but require you to take an anti-coagulant medicine to thin your blood for the rest of your life. Biological (tissue) valves do not last indefinitely but you are less likely to require anti-coagulant drugs.

Your surgeon will discuss with you which valve is most suitable for you.

- **Valve repair** is usually performed on Mitral (Inlet) valves that are not significantly damaged. Occasionally other valves can be repaired too.

During the surgery a heart-lung bypass machine is used to circulate blood around the body whilst the surgeon is operating on your heart.

The operation usually takes between 2 and 6 hours.

Recovery after the operation

After the operation you will be taken to the Cardio Thoracic Critical Care Unit (CTCC) where we will give you intensive cardiothoracic and nursing care. You will normally be transferred to the Cardiothoracic Ward after 1 to 2 days. Most people stay in hospital for about 6 to 8 days in total. Full details of what happens during the recovery period, aftercare and rehabilitation are given in our booklet 'Cardiac Surgery'.

Benefits of valve surgery

The benefits of valve surgery vary from person to person. The benefits for you will depend on your particular symptoms before the operation. You can expect to see an improvement in your symptoms and the surgery will also help to prevent or reduce the further deterioration of your heart valves.

Risks of valve surgery

Assessing your individual risk of complications

Valve surgery, like any other surgery, carries a risk of complications. The risk of complications varies from person to person and will depend on several factors including:

- Your age and sex.
- Which valve is being operated on, and the extent of valve and heart muscle disease.
- Whether you are having any additional heart operation (like coronary artery bypass surgery, surgery for aortic aneurysm, multiple valve surgery) at the same time as your primary valve operation.
- Whether you have diabetes, lung problems, kidney damage or any significant problems with the circulation to your brain or legs.
- The urgency of the operation.

Your surgeon will take the above factors into account when assessing your individual risk.

Complications

Following your recovery from surgery, complications are rare.

Possible complications are:

- Stroke - there is always a very small risk of stroke with heart surgery
- An ongoing risk of infection - to reduce this risk all patients should have regular dental checks
- Blood clots can form, mostly on mechanical valves, particularly if you have difficulty with your anticoagulant control
- Wear or damage to valves - this is more common with tissue valves
- Pacemaker to control normal heart rhythm
- Bleeding from warfarin
- Post-operative bleeding
- Delirium
- Oesophageal damage from the ultrasound probe.

Alternatives to valve surgery

The alternatives to valve surgery are:

- **Medical treatment:**

Various medicines can help to treat the symptoms of valve disease.

- **Balloon treatment (valvuloplasty):**

A very fine tube is passed into the heart through an artery. A balloon on the end of the tube is inflated to stretch the valve. This is only possible for narrowed valves.

- **TAVI** (Transcatheter aortic valve implantation procedure) if suitable when the risk is greater.

Your cardiologist will have already discussed these alternatives with you, including the risks and benefits, and whether they are options for your specific condition and symptoms.

Consent

Written consent is required before the operation can take place. Your surgeon will discuss the risks, benefits and alternatives of the operation with you. If you have any questions, please talk to your doctor before you sign the consent form. Consent can be withdrawn or modified by you at any time.

How to contact us

If you have any queries or concerns, please do contact us:

Cardiac Surgery Preadmission and Discharge Liaison Nurses

Telephone: 01865 220 274 (direct line)

Telephone: 01865 741 166, ask for bleep 4549

Cardiothoracic Ward (CTW)

Telephone: 01865 572 657

Switchboard: 01865 741 166, ask for bleep 1971

Elective Access Administrator

Telephone: 01865 572 808

Additional information can also be found:

In our booklet 'Cardiac Surgery'

Website: www.nice.org.uk

Telephone: 0870 1555 455 to order free copies

British Heart Foundation booklet 10

'Coronary Angioplasty and Coronary Bypass Surgery'

Website: www.bhf.org.uk

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
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