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.
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 1-2 days. Most people stay in hospital for about 6-8 days in total. Full details of what happens during the recovery period, aftercare and rehabilitation are given in our booklet “Oxford 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 a coronary artery bypass graft at the same time as your valve surgery
- 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.
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.

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.

Further Information

Further information may be found:

- In the booklet ‘Oxford Cardiac Surgery’ which is given to you at the pre-admission clinic or on admission

- In the British Heart Foundation booklet ‘Valvular Heart Disease’ (www.bhf.org.uk)

- By asking your surgeon or one of the nurses (see contact details)
How to contact us

If you have any queries or concerns, please do contact us on the following telephone numbers:

Cardiac Surgery Preadmission and Discharge Liaison Nurses
(01865) 220274 (direct line)

Deputy Matron
(01865) 740418 (direct line)

Cardiothoracic Ward (CTW)
(01865) 220565
If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473**. When we receive your call we may transfer you to an interpreter. This can take some time, so please be patient.