



Heart Valve Surgery

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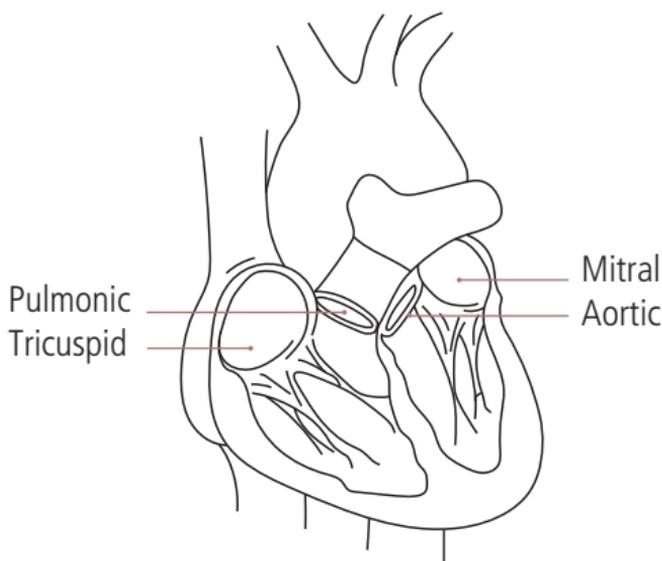


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What is Valvular Heart Disease?

Heart valves are 'doors' that control the flow of blood between the different chambers or parts of the heart.

In valvular heart disease, one or more of the heart valves become damaged and cannot function properly. Different diseases affect different valves. Certain diseases tend to affect one heart valve more than the others. The valves in the left side of the heart are more commonly affected than those in the right side of the heart.



What are the symptoms?

Patients will start experiencing symptoms at different ages depending on the disease that they have. This can range from the very young to the very old.

In general, valves can become "floppy" and allow blood to flow backwards or become "tight" thereby narrowing the space through which the blood can flow forward. There can also be a mixture of both.

In the early stage, you may have no symptoms and feel alright even if your valve is badly damaged. The symptoms may appear later and become progressively worse.

Common symptoms include:

- Shortness of breath on exertion
- Fatigue or tiredness
- Feeling of faintness
- Irregular heart beat
- Chest pain
- Swelling of ankles

If you experience these symptoms, you should see your family doctor who will take a look at your detailed history, do a thorough physical examination and order the necessary tests.

Your doctor may refer you to a cardiologist for further evaluation. The cardiologist may do an echocardiogram, a painless test using ultrasound, to help him look at your heart and its different structures. This will help your doctor to understand your condition and be able to make an accurate diagnosis and give the correct treatment.

What is the treatment?

Depending on what is found, you may be:

- Given medications and be followed up regularly
- Referred to an interventional cardiologist
- Referred to a cardiac surgeon

The interventional cardiologist is a cardiologist who carries out procedures on the heart using percutaneous methods through the skin.

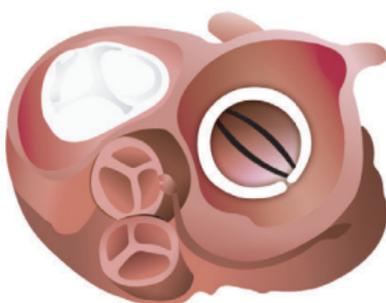
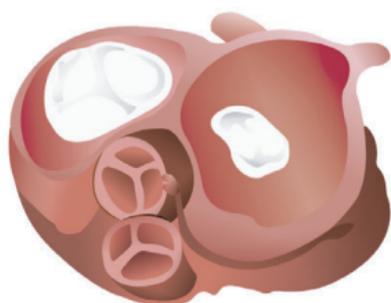
The cardiac surgeon will:

- Explain why open heart surgery may be the best option for your condition
- Explain the different ways of treating the valves
- Explain the risks, benefits and possible complications
- Describe the surgical procedure
- Explain the post operative care
- Answer your questions and clarify your doubts
- Help you reach a decision and set a date for the surgery

Mitral Valve Replacement for Mitral Stenosis

Before

After



What are the types of valve surgery?

Your damaged valves can either be repaired or replaced.

Your surgeon will always try to save as much of your valve as possible unless this affects the result of the surgery. If the repair fails, he will replace the valve at the same operation.

Valves can be replaced by:

- Mechanical valves
- Bioprosthetic valves which are made from pig or cow tissue
- Allograft valves which are taken from human valve tissue



Bioprosthesis



Annuloplasty ring



Homograft



Mechanical

How do you prepare for the surgery?

Pre-Admission

- All the necessary tests (e.g. blood tests, X-Ray etc) will be done two weeks before your admission to hospital. In this way, you will only need to be admitted the day before surgery, helping you save on your hospital bill.
- Should any of your tests be abnormal, you can be treated in time so as not to delay surgery. You will also be booked into the Anaesthesia Outpatient Consultation Clinic (AOCC) so that the anaesthetist can screen your investigations and ensure that there are no other issues to address before you undergo surgery.
- You should stop smoking for at least four weeks before surgery to enable faster recovery and to reduce the risk of complications. In fact, you should think about stopping smoking for good.
- You should eat a healthy balanced diet and rest well before the surgery.
- Taking multivitamins may help in your recovery. Traditional alternative herbal remedies – such as Traditional Chinese Medicine, Jamu, Ayurvedic treatments should be stopped 3 weeks before surgery, as these can interfere with the body's response to major surgery and increase the risk of serious complications.
- When you come for your blood tests and orientation, you will be given a bottle of anti-bacterial soap for bathing. Please start to use this 3 days before admission to reduce your risk of infection.

Admission

- If your operation is scheduled for the morning, you will be admitted the day before surgery, sometimes earlier if inpatient treatment has to be started before surgery. If your operation is scheduled for the afternoon, you may be suitable for Same Day Admission on the morning of surgery.
- A team of doctors will check you to make sure everything is in order.
- They will explain to you again the surgery and other details. You can address any further concerns with them.
- The anaesthetist will visit you to ensure no new issues have arisen since your AOCC consult and to address any further questions you may have about the anaesthesia.
- You are recommended to shower with antibacterial soap both the night before and morning of surgery in order to reduce your risk of infection.
- You will not be allowed to eat or drink after midnight.

Operation and post-operative care

- Your surgeon will advise how long the surgery is expected to take based on what your operation involves.
- After your operation you will be looked after in the Cardiothoracic Intensive Care Unit (CTICU).
- Before you transfer from CTICU back to the ward, the monitoring lines and urine catheter that were inserted just before the start of your operation will be removed. Chest tubes inserted during the operation may be removed in CTICU or in the ward.
- You will stay for another three to four days before discharge. Patients who are weak and frail may benefit from a period of inpatient rehabilitation in a Community Hospital. This will be assessed by the Physiotherapy and Occupational Therapy teams in the ward.
- Total recovery usually takes four to six weeks. Depending on your work commitments, you may be granted a longer period of Hospitalisation Leave in order to complete Cardiac Rehabilitation before returning to work.
- You will be given an appointment for early review by the surgical team. This usually takes place 2-3 weeks after your discharge, enabling the team to review your wound healing, blood tests, ECG and chest X-ray.
- You will also be given appointments to see your surgeon and cardiologist at appropriate times.
- Cardiac Rehabilitation is strongly recommended to optimise the long term benefits of heart surgery. After discharge you will be referred to the Cardiac Rehabilitation Program either at NUH or at your local hospital.

Location



Contact Information

National University Heart Centre, Singapore

NUH Main Building,
Wards 20, 28, 63 and 64
Kent Ridge Wing (NUH),
Ward 7A

Opening Hours: 12pm to 8pm (Daily)

Website: www.nuhcs.com.sg

Getting to NUH

Circle Line Kent Ridge MRT Station

Commuters can transit at the Buona Vista MRT Interchange and alight two stops after at the Kent Ridge Station. The station is served by three exit-entry points.

Exit A: Right at the doorstep of National University Heart Centre, Singapore.

Exit B: Along South Buona Vista Road, which links to Singapore Science Park 1.

Exit C: Leads to NUH Medical Centre.

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