Mitral Valve Replacement Surgery

Table of Contents

- Surgery Overview
- What To Expect After Surgery
- Why It Is Done
- How Well It Works
- Risks
- What To Think About
- References
- Credits

Surgery Overview

Mitral valve replacement surgery may be needed for mitral valve regurgitation or mitral valve stenosis.

Valve replacement is typically done as an open-heart surgery. Minimally invasive types of surgery may be another option. This document describes open-heart surgery.

Before you have valve replacement surgery, you and your doctor will decide on which type of valve is right for you.

Heart Valve Problems: Should I Choose a Mechanical Valve or Tissue Valve to Replace My Heart Valve?

During valve surgery, you are given general anesthesia. Your doctor makes a large incision in your chest. You are placed on a heart-lung machine during the surgery. Blood is circulated outside of the body and oxygen is added to it using a heart-lung (cardiopulmonary bypass) machine. To protect the heart muscle from damage during surgery to replace the heart valve, the heart may be cooled to slow or stop the heartbeat. The damaged mitral valve is removed and replaced with an artificial heart valve. The damaged valve is cut out, and the new valve is sewn into place.

What To Expect After Surgery

Recovery

Recovery from heart valve surgery usually involves a few days in an intensive care unit (ICU) of a hospital. Full recovery from heart valve surgery can take several months.
Recovery includes healing of the surgical incision, gradually building physical endurance, and exercising.

You will feel tired and sore for the first few weeks after surgery. You may have some brief, sharp pains on either side of your chest. Your chest, shoulders, and upper back may ache. The incision in your chest may be sore or swollen. These symptoms usually get better after 4 to 6 weeks.

You will probably be able to do many of your usual activities after 4 to 6 weeks. But for at least 6 weeks, you will not be able to lift heavy objects or do activities that strain your chest or upper arm muscles. At first you may notice that you get tired easily and need to rest often. It may take 1 to 2 months to get your energy back.

Even though the surgery repaired your mitral valve, it is still important to eat heart-healthy foods, get regular exercise, not smoke, take your heart medicines, and reduce stress. Your doctor may recommend that you work with a nurse, a dietitian, and a physical therapist to make these changes. This is sometimes called cardiac rehabilitation.

**Life after surgery**

After you have an artificial valve, your heart function and your life will largely return to normal. If you had symptoms before surgery, you should feel better than before you had the surgery. For example, you should no longer have shortness of breath and fatigue. But if your heart was already severely affected before your surgery, you may continue to have complications of heart disease.

You should be able to resume most of your normal activities, although you will have to continue to monitor your condition. You need to watch out for symptoms of blood clots and infections.

An artificial valve may need to be replaced after a period of time. So be sure to see your doctor regularly.

If you have a mechanical heart valve, you are more likely to develop blood clots in your heart. So you will take an anticoagulant medicine for the rest of your life to help prevent clots.

**Why It Is Done**

For both stenosis and regurgitation, valve repair surgery is typically preferred over valve replacement surgery. But if repair surgery is not a good option, replacement surgery might be recommended.
An artificial mitral valve cannot work as well as a normal mitral valve. So your doctor will likely recommend valve replacement only if it necessary. It might be necessary if the valve has deteriorated to the point that repair is not an option or if the anatomy of the valve has been changed by one or more repair procedures and can no longer be repaired.

You and your doctor will also consider your age and your overall health when you are deciding whether to have surgery.

**Mitral valve regurgitation**
For acute mitral valve regurgitation, surgery is done immediately to replace or repair the valve.

For chronic regurgitation, surgery might be recommended if:

- You have symptoms.
- Regurgitation is severe.
- Your heart has pumping problems (low ejection fraction).
- Your left ventricle is larger than normal.

The decision to have surgery also depends on what caused mitral regurgitation. It depends on whether it is caused by:

- A problem with the anatomy of the valve (primary regurgitation).
- Another heart problem (secondary regurgitation).

Surgery is usually delayed if no symptoms or signs of heart failure are present.

**Mitral valve stenosis**
Surgery for mitral valve stenosis might be recommended if:

- Symptoms are present.
- Stenosis is severe.
- Balloon valvotomy is not an option.
- Mitral valve regurgitation is also present.

Valve replacement surgery will likely be recommended if you need surgery but cannot have balloon valvotomy or the commissurotomy surgery to repair your mitral valve.

**How Well It Works**
After a diseased mitral valve is replaced, the artificial valve works more like a normal valve and allows blood to flow more normally through the heart. Many people feel better and have a better quality of life after surgery.
The outcome of mitral valve replacement depends on a person’s heart health and overall health, including other health conditions.

**Risks**

The exact risks of mitral valve surgery vary depending on the person’s specific condition and general health prior to surgery. Younger, healthy people have a lower risk of problems while older people with other health problems have a higher risk.

In general, the risks include:

- Effects from the operation itself (such as bleeding, infection, and risks associated with anesthesia).
- The risk of death from the surgery is about 3% to 9%. This risk can be higher or lower depending on many things such as age, heart health, and other medical problems.
- Blood clotting caused by the new valve. Replacement with a mechanical valve requires lifelong treatment with anticoagulant medicine to prevent dangerous blood clots.
- Infection around the artificial valve.
- Failure of the new valve. There is a small chance that the valve will not work. Your doctor will need to check from time to time to make sure that your valve is working.
- The need for another valve replacement surgery. Artificial valves last only for a limited time. Having valve surgery again will depend on what type of valve you have and how long you live after your first surgery.

**What To Think About**

Repair of the heart valve usually is the preferred surgery for a mitral valve problem. When the mitral valve is seriously damaged, heart valve replacement may be recommended. The decision whether to repair or replace a valve is based on many things, including your general health, the condition of the damaged valve, the presence of other health conditions, and the expected benefits of surgery.

- Mitral Valve Regurgitation: Repair or Replace the Valve?
- Mitral Valve Stenosis: Repair or Replace the Valve?

**Transcatheter repair for mitral valve regurgitation**

A transcatheter procedure is a new way to repair a mitral valve. It does not require open-heart surgery. It is a minimally invasive procedure. A doctor uses catheters in blood vessels to insert a device in the valve. The device helps keep blood from leaking
backward. This may relieve symptoms and improve quality of life. This procedure is available in a small number of hospitals. And it is not right for everyone. It might be done for a person who can't have surgery or for a person who has a high risk of serious problems from surgery.³

Complete the surgery information form (PDF) to help you prepare for this surgery.

References

Citations


Credits

By Healthwise Staff
Primary Medical Reviewer  Rakesh K. Pai, MD, FACC - Cardiology, Electrophysiology
Martin J. Gabica, MD - Family Medicine
Specialist Medical Reviewer  John A. McPherson, MD, FACC, FSCAI - Cardiology
Current as of April 3, 2017

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