

About Mitral Valve Repair

What It Is

Definition

The mitral valve is on the left side of the heart. It allows blood to flow from the left upper chamber into the left lower chamber. When the valve is not working well, it may need to be repaired.

Reasons for Procedure

Mitral valve repair is the best option for many patients with degenerative mitral valve disease leading to regurgitation (leakage). Compared to valve replacement, mitral valve repair provides better outcomes leaving normally functioning tissue, which resists infection more effectively and usually eliminates the need for long-term use of blood thinners.

Possible Complications

If you are planning to have a mitral valve repair, your doctor will review a list of possible complications, which may include:

- Infections
- Bleeding
- Stroke
- Damage to other organs, such as the kidneys
- Irregular heart rhythm
- Death

Some factors that may increase the risk of complications with heart surgery include:

- Lung disease, especially chronic obstructive pulmonary disease (COPD) (emphysema)
- Prior heart attack or cardiac surgery
- Obesity
- Diabetes
- Smoking
- Kidney disease

What To Expect

Prior to Procedure

Your doctor will likely do the following:

- Physical exam
- Chest X-ray
- Lab work
- Echocardiogram
- Electrocardiogram (ECG, EKG)
- Cardiac catheterization

Talk to your doctor about your medicines, herbs, or supplements. You may be asked to stop taking some medicines up to one week before the procedure, such as:

- Blood-thinning drugs, such as warfarin (Coumadin)
- Anti-platelet drugs, such as clopidogrel (Plavix)
- Diabetes medications, such as metformin (Glucophage)

Your doctor may also ask you to:

- Eat a light meal the night before. Do not eat or drink anything after midnight.
- Arrange for a ride to and from the hospital.
- Arrange for help at home after the procedure.

Anesthesia

You will have a general anesthetic. You will be asleep during the procedure.

Descriptions of Procedures

- *Leaflet Repair* – The valve leaflet is surgically separated, cut or pleated to repair a floppy or prolapsed valve leaflet.
- *Annuloplasty* – The ring of tissue around the valve is tightened or replaced to hold the leaflets in proper position.
- *Repair of structural support* – The cords are replaced or shortened to support the valve leaflets.

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Approaches to the Procedures

- *Conventional Mitral Valve Repair* – During conventional mitral valve repair, the breastbone is split to open the chest.
- *Minimally Invasive Mitral Valve Repair* – The minimally invasive techniques for mitral valve repair can be performed through a small incision on the side of the chest. Advantages of minimally invasive approaches include faster recovery, less pain, reduced need for blood transfusion and better cosmetic result.
- *Robotic-Assisted Mitral Valve Repair* – The minimally invasive robotically-assisted technique uses even smaller incisions – often less than 2 inches. The surgeon's hands control the movement and placement of the endoscopic instruments to open the pericardium and to perform the procedure. In most cases, the sternum or breastbone does not need to be opened and the ribs do not need to be spread to perform the procedure.

Immediately After Procedure

You will be taken to the intensive care unit (ICU) where your recovery will be closely monitored.

How Long Will It Take?

The surgery can take anywhere from 3 to 6 hours.

How Much Will It Hurt?

Anesthesia prevents pain during surgery. You may be given medication for any pain during recovery. Pain levels vary from patient to patient.

Average Hospital Stay

Depending on the type of surgery, the average hospital stay is 3 to 4 days.

Postoperative Care

At the Hospital

You will probably spend the first day in the ICU and the remainder of your stay in a regular hospital room. During this time, your care team will:

- Observe you for any complications
- Adjust your medications
- Instruct you in home care and activities

At Home

When you return home, do the following to help ensure a smooth recovery:

- Take medicines as directed by your doctor, such as:
 - Antiarrhythmics
 - Cholesterol-lowering medicine
 - Blood pressure medicine
 - Pain medicine
 - You may also need to take antibiotics during dental procedure and during certain other procedures as this will help prevent a valve infection.
- Follow your doctor's guidelines for caring for you incisions
- Weigh yourself every morning
- Be sure to follow all of your doctor's instructions

Recovering after Surgery/What to Expect

Every patient's recovery can be different. You will need to shower, daily, with a mild soap. Ask your doctor when it is safe to take a bath or soak in water. You may find that there will be some areas of discomfort in the area of surgery that can last for several weeks. Also, it is common that you may feel tired for many weeks following this type of surgery.

You will be asked not to do any type of physical activities that will cause pain at the surgical site. Most patients, after this type of surgery, can return to normal activities approximately two to three weeks after the operation. People with jobs requiring strong physical activity may require additional time before resuming those types of activities. Be sure to ask your doctor when you can drive and return to work.

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When to Call Your Surgeon

- Pain that you cannot control with the medication you have been given
- Signs of infection, including fever and chills
- Redness, swelling, increasing pain, excessive bleeding, or discharge at the incision sites
- Nausea and/or vomiting that you cannot control with the medication you were given after surgery or that lasts longer than expected
- Cough, shortness of breath, or chest pain
- Pain, burning, urgency, frequency of urination, or persistent blood in the urine
- Gaining more than four pounds within one or two days
- Pain and/or swelling in your feet, calves, or legs, or sudden shortness of breath or chest pain

For more information, call the Steward Center for Advanced Cardiac Surgery at 617-789-2045.