



Mitral Valve Repair or Replacement

Mitral Valve Surgery

In most cases, mitral valve repair or replacement is an open heart operation. This means that the surgeon performs a sternotomy (a vertical incision down center of chest) in order to replace or repair you failing mitral valve. Either a new artificial (prosthetic) valve is then sewn into place or the valve is repaired. In some cases, the valve can be replaced without opening the chest. Called minimally invasive surgery, the damaged valve is replaced through a small incision near the "breastbone" or under your right chest muscle. Your doctor will develop an individualized care plan for you and all options will be discussed. This will include whether the valve needs repaired or replaced and if needs replacement, what valve to use.

There are four valves in your heart including the mitral, tricuspid, aortic and pulmonic valves. The mitral valve is located between the left ventricle (lower heart pumping chamber) and the left atrium (upper heart pumping chamber).

Valve Options

The two most common types of valves for replacement are:

Mechanical—It is made entirely out of artificial materials. Requires Coumadin therapy.

Bioprosthetic—This valve is made out of a combination of artificial materials and tissues from a pig, cow, or other animal. Requires aspirin therapy.

Your doctor will recommend the appropriate valve for you.

What is mitral valve disease?

Mitral Valve disease occurs when the mitral valve does not work correctly. This can be caused by:

Mitral Valve Stenosis: These stiff, fused, thickened, inflexible valve leaflets lead to the narrowing of the mitral valve, that limits the blood flow. Mitral stenosis progresses when calcium is deposited on the valve leaflets, further limiting their mobility.

Mitral Valve Regurgitation: Mitral valve regurgitation, also referred to as mitral valve insufficiency or mitral prolapse, is a degenerative structural heart condition where the mitral heart valve does not function properly. The mitral valve becomes incompetent, allowing blood to flow in the wrong direction within the heart. Severe mitral valve regurgitation leads to a decrease in blood flow to the rest of the body, requiring the heart to pump harder. Left untreated, severe mitral valve regurgitation may lead to congestive heart failure and eventually death. The onset of severe regurgitation may be progressive or sudden depending on the underlying cause. Structural mitral regurgitation results from rheumatic valve disease, ruptured valve apparatus, infectious endocarditis, and redundant valve leaflets as in mitral valve prolapse.

Symptoms of mitral valve disease include:

- Shortness of breath that occurs with increased activity and when lying down
- Rapid breathing
- Fatigue or exhaustion
- Coughing
- Lightheadedness
- Swollen feet or ankles
- Excessive urination
- Heart palpitations or rapid heartbeat, including atrial fibrillation

Preparing for surgery

- Tell your doctors ALL the medicines, vitamins, supplements, and herbal remedies you take. Some of these can increase the risk of bleeding or interact with anesthesia.
- If you take blood thinners, such as warfarin (Coumadin), clopidogrel (Plavix), or aspirin, be sure to talk to your doctor. He or she will tell you if you should stop taking these medicines before your surgery. Make sure that you understand exactly what your doctor wants you to do.
- Your doctor will tell you which medicines to take or stop before your surgery. You may need to stop taking certain medicines a week or more before surgery. So talk to your doctor as soon as you can.
- If you have an advance directive, let your doctor know. It may include a living will and a durable power of attorney for health care. Bring a copy to the hospital. If you don't have one, you may want to prepare one. It lets your doctor and loved ones know your health care wishes. Doctors advise that everyone prepare these papers before any type of surgery or procedure.
- Do not smoke.
- Follow the instructions exactly about when to stop eating and drinking. If you don't, your surgery may be canceled. If your doctor told you to take your medicines on the day of surgery, take them with only a sip of water.
- Take a bath or shower before you come in for your surgery. Do not apply lotions, perfumes, deodorants, or nail polish.
- Do not shave the surgical site yourself.
- Take off all jewelry and piercings. And take out contact lenses, if you wear them.
- Someone from our office will call you the evening before your surgery to let you know what time to arrive at the hospital in the morning. We often do not know the final operating room schedule until the evening before. Please be advised that your surgery may be postponed if an emergent patient needs to go first.

Day of Surgery

- Bring a picture ID.
- Parking-For your convenience and safety, parking is available in the garage located on the west side of the hospital across from the Emergency Department. Additional parking is available in the garage located next to the Women's Center on the east side of the hospital. The garages are open 24 hours a day at no cost. The most convenient option for parking is in the Visitor Garage across from the Emergency Department.
- Report to the Reception Desk. On the day of surgery please arrive at the main entrance of the hospital and take the elevators on your right to the third floor lobby and check in at the Registration desk. Please check in 2 hours prior to your scheduled surgery time.
- You will be kept comfortable and safe by your anesthesia provider. You will be asleep during the surgery.
- The surgery will take about 3 to 5 hours.
- You will go to the cardiac intensive care (CVICU) on the 5th floor right after surgery. Average length of stay is 3-5 days.
- You will have a breathing tube down your throat. This is usually removed within 4 hours after surgery. You will not be able to talk or drink liquids while the tube is in your throat. After the tube is removed, your throat will feel dry and scratchy. Your nurse will tell you when it is safe to drink liquids again
- You will have chest tubes to drain fluid and blood after surgery. The fluid and extra blood are normal and usually last only a few days. The chest tubes are usually removed in 1 or 2 days.
- You will have several thin wires coming out of your chest near your incision. These wires can help keep your heartbeat steady after surgery. They will be removed before you go home.

Recovery

You will stay in the hospital for at least 3 to 5 days after the surgery. You will feel tired and sore for the first few weeks. Your chest, shoulders, and upper back may ache. These symptoms usually get better in 4 to 6 weeks. It may take 1 to 2 months before your energy level is back to normal.

Activity

- Sternal precautions for 8 weeks – no lifting, pushing or pulling > 10 lbs
- No driving for 4 weeks
- No sex for 4 weeks
- Rest when you feel tired. Getting enough sleep will help you recover. Try to sleep on your back for 4 to 6 weeks while your breastbone (sternum) heals. This usually takes about 4 to 6 weeks.
- Try to walk each day. Start by walking a little more than you did the day before. Bit by bit, increase the amount you walk. Walking boosts blood flow and helps prevent pneumonia and constipation.
- Avoid strenuous activities, such as bicycle riding, jogging, weight lifting, or heavy aerobic exercise, until your doctor says it is okay.
- For 3 months, avoid activities that strain your chest or upper arm muscles. This includes pushing a lawn mower or vacuum, mopping floors, or swinging a golf club or tennis racquet.
- Hold a pillow firmly over your chest incision when you cough or take deep breaths. This will support your chest and reduce your pain.
- Do breathing exercises at home as instructed by your doctor. This will help prevent pneumonia.
- You may shower as usual. Pat the incision dry. Do not take a bath until the glue falls off and there are no open areas along incision.

Diet

- Eat a heart-healthy diet. If you have not been eating this way, talk to your doctor. You also may want to talk to a dietitian. A dietitian can help you learn about healthy foods.
- Drink plenty of fluids (unless your doctor tells you not to).
- You may notice that your bowel movements are not regular right after your surgery. This is common. Try to avoid constipation and straining with bowel movements. You may want to take a fiber supplement every day. If you have not had a bowel movement after a couple of days, you may take a mild laxative over the counter.

Medicines

- Your doctor will tell you if and when you can restart your medicines. A list of new medicines, medicines to stop and medications to continue will be given to you at time of discharge.
- Your doctor may give you medicines to prevent blood clots, keep your heartbeat steady, and lower your blood pressure and cholesterol. Take your medicines exactly as prescribed. Call the office if you think you are having a problem with your medicine.
- Be safe with medicines. Take pain medicines exactly as directed.
 - If the doctor gave you a prescription medicine for pain, take it as prescribed.
 - If you are not taking a prescription pain medicine, ask your doctor if you can take an over-the-counter medicine.
 - If you are able to take ibuprofen and Tylenol you may alternate every three hours. Sample Schedule – Motrin 600 mg by mouth at 6 a.m., Tylenol 500 mg by mouth 9 a.m., Motrin 600 mg by mouth at noon, Tylenol 500 mg by mouth at 3 p.m., etc.
 - Do not exceed 4 grams total of Tylenol in a 24 hour period
- If you think your pain medicine is making you sick to your stomach:
 - Take your medicine after meals
- If your doctor prescribed antibiotics, take them as directed.

Incision care

- Wash the area daily with warm, soapy water, and pat it dry. Don't use hydrogen peroxide or alcohol, which can slow healing. You may cover the area with a gauze bandage if it weeps. Change the bandage every day.
- Keep the area clean and dry. Stitches will be removed at postoperative visit. You do not need to cover any area with bandage.

Follow Up

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call the office if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

When should you call for help?

Call 911 anytime you think you may need emergency care. For example, call if:

- You passed out (lost consciousness).
- You have severe trouble breathing.
- You have sudden chest pain and shortness of breath, or you cough up blood.
- You have severe pain in your chest.
- You have symptoms of a heart attack. These may include:
 - Chest pain or pressure, or a strange feeling in the chest.
 - Sweating.
 - Shortness of breath.
 - Nausea or vomiting.
 - Pain, pressure, or a strange feeling in the back, neck, jaw, or upper belly or in one or both shoulders or arms.
 - Lightheadedness or sudden weakness.
 - A fast or irregular heartbeat.

Call the office (352-333-5610) for any questions or concerns:

- You have pain that does not get better after you take pain medicine.
- You have a fever over 100°F.
- You have loose stitches, or your incision comes open.
- Bright red blood has soaked through the bandage over your incision.
- You have signs of infection, such as:
 - Increased pain, swelling, warmth, or redness.
 - Red streaks leading from the incision.
 - Pus draining from the incision.
 - A fever.
- Your heartbeat feels very fast or slow, skips beats, or flutters.

- You are dizzy or lightheaded, or you feel like you may faint.
- You have new or increased shortness of breath.
- You have increased swelling in your legs, ankles, or feet.
- You have any concerns about your incision.
- You have questions about diet, exercise, quitting smoking, or stress reduction after surgery.

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