

Patient Guide

MitraClip™ Procedure

MARCUS HEART VALVE CENTER

95 Collier Road, Suite 5015 | Atlanta, Georgia 30309

Local: 404.605.6517 | Toll Free: 855.654.6517 | After Hours: 404.605.5699

How the Heart Works

The heart's primary function is to pump oxygenated blood out to the body. The heart has four chambers. The upper chambers are called the left and right atria, and the lower chambers are called the left and right ventricles. The heart has four valves that regulate blood flow through your heart. The **tricuspid valve** regulates blood flow between the right atrium and the right ventricle. The **pulmonary valve** controls blood flow from the right ventricle into the pulmonary arteries, which carry blood to your lungs to pick up oxygen. The **mitral valve** lets oxygen-rich blood from your lungs pass from the left atrium into the left ventricle. The **aortic valve** opens the way for the oxygen-rich blood to pass from the left ventricle into the aorta and out to your body.

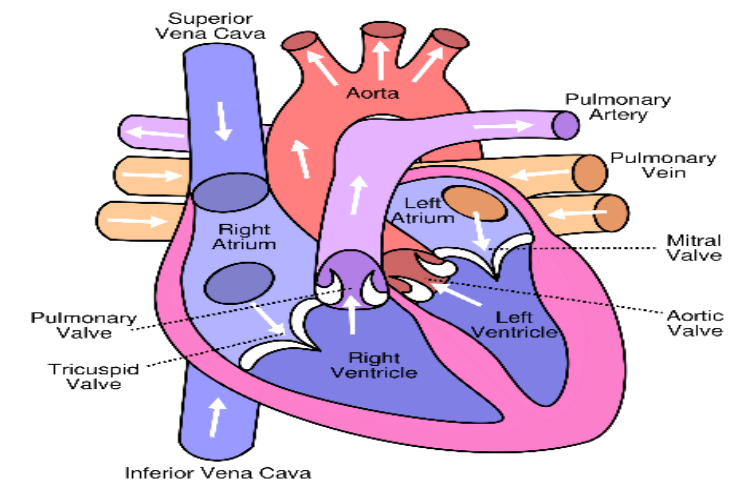


Image Source: [//en.wikipedia.org/wiki/Atrium_heart](https://en.wikipedia.org/wiki/Atrium_heart)

Mitral Valve Regurgitation

Mitral valve regurgitation is a condition in which the heart's mitral valve does not close tightly. As a result, blood flows backwards into the upper chamber (left atrium) from the lower chamber (left ventricle) as the heart contracts. This reduces the amount of blood that flows through your heart and to the rest of the body. Because of this backflow of blood, the heart has to work harder to pump blood from the left ventricle to the aorta, resulting in an enlarged left ventricle.

Symptoms of Mitral Regurgitation

Symptoms of Mitral Regurgitation are often mild and progress slowly and you may experience no symptoms for many years. Your physician may first suspect the condition by detecting a heart murmur. Mitral regurgitation can also begin suddenly, such as following a heart attack.

When symptoms occur, they may include:

- Cough
- Lightheadedness
- Fatigue
- Shortness of breath that increases with activity and when lying down
- Palpitations or the feeling of a rapid heartbeat.

Causes of Mitral Valve Regurgitation

Mitral valve regurgitation is classified as primary or secondary.

- In **Primary** or **Degenerative Mitral Regurgitation**, there is structural damage to the valve. This can be due to mitral valve prolapse, a congenitally malformed valve, damage from an infection (rheumatic fever, endocarditis), or valve degeneration due to the normal aging process.
- In **Secondary** or **Functional Mitral Regurgitation**, the valve is structurally normal. The valve leaks because the heart is enlarged or damage to the heart muscle has occurred from coronary artery disease or a heart attack.

Complications of Mitral Valve Regurgitation

- **Atrial fibrillation.** The backflow of blood or regurgitation can cause stretching and enlargement of your heart's left atrium. This can lead to an irregularity in your heart rhythm in which the upper chambers of your heart beat rapidly and chaotically. Atrial fibrillation can lead to blood clots, which can break loose from your heart and travel to your lungs or brain causing serious problems such as a stroke.
- **Heart failure.** Mitral valve regurgitation places undue stress and strain on the heart because of the backward blood flow. The heart will attempt to compensate by pumping harder, causing the left ventricle to enlarge and weaken. This causes the heart to pump less blood to meet the body's need.
- **Pulmonary hypertension.** Long-term or untreated mitral regurgitation can cause a type of high blood pressure that affects the blood vessels in the lungs. This increased pressure in the lungs causes an increased pressure in your left atrium. The increased pressure in your left atrium can lead to heart failure on the right side of your heart.

Treatment of Mitral Valve Regurgitation

- **Medical:** Medications can decrease symptoms and reduce secondary or functional mitral regurgitation, but no medications can treat primary or degenerative regurgitation.
- **Surgical:** Surgical repair or replacement of the mitral valve is recommended for patients who are diagnosed with moderate-to-severe or severe mitral regurgitation. Mitral valve repair or replacement usually involves open-heart surgery while on cardiopulmonary bypass.
- **Transcatheter Mitral Valve Repair:** The *MitraClip™* is available for patients who are high risk for surgery with primary or degenerative mitral regurgitation. It can also be used in patients with functional mitral disease if significant regurgitation remains after optimal medication management has been attempted.

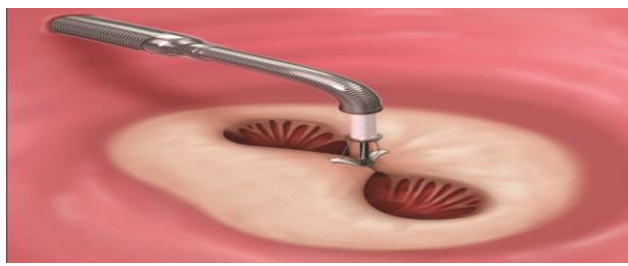
Transcatheter *MitraClip*™ Procedure

The *MitraClip*™ therapy is a percutaneous (needle puncture of the skin) minimally invasive procedure for patients who are not candidates for traditional open chest mitral valve repair or replacement surgery. In the *MitraClip*™ procedure, an expert physician team attaches a small clip to your mitral valve. The clip allows your mitral valve to close more completely, and helps to restore normal blood flow through your heart.

The *MitraClip*™ procedure does not require opening your chest or the use of cardiopulmonary bypass. Your physician team will access the mitral valve with a thin catheter that is guided through a vein in your leg to reach your heart. Because the physician will need you completely sedated for this procedure, you will require the use of general anesthesia during your *MitraClip*™ procedure.



The MitraClip™ device is a small clip that is attached to your mitral valve. It treats mitral regurgitation by allowing your mitral valve to close more completely, helping to restore normal blood flow through your heart.



Pre- *MitraClip*™ Instructions

Below is your *MitraClip*™ pre-procedure checklist.

Please read each item carefully. Failure to follow this checklist may result in delay, rescheduling, or cancellation of your procedure.

- Do not eat or drink after 12 a.m. midnight before the day of your procedure, including water, chewing gum, or mints, except as directed. Do not drink any alcoholic beverages within 24 hours of your procedure.
- Stop taking Coumadin, Warfarin, Pradaxa, Xarelto, and Eliquis as directed by your physician team.
- Do not take Ace Inhibitors and Angiotensin Receptor Blockers (ARBS) on the morning of your procedure unless otherwise directed by your physician team.
- Stop taking Glucophage/Metformin or any medications containing Glucophage/Metformin two days prior to your procedure unless otherwise directed by your physician team.
- Do not take a diuretic (water pill) the day of your procedure.
- Unless otherwise directed, it is OK to continue baby aspirin (81mg) and clopidogrel (Plavix) on the day of your procedure.
- If you have an allergy to iodine, or contrast dye, please call the office at 404-605-6517 to inform your physician team at least five days prior to your procedure.
- If you use a CPAP or BIPAP machine at home, please bring it to the hospital with you. The machine maybe used during your procedure or during your hospital stay.
- If you currently use a walker or cane to assist with ambulation, please bring it with you to the hospital.

Day of Your *MitraClip*[™] Procedure

You will be admitted to the hospital on the day of your *MitraClip*[™] procedure. Please leave any valuables at home or with a loved one/caregiver.

Please have your loved one/caregiver bring you to **Piedmont Atlanta Hospital**. The most convenient parking is in the **North** Parking Deck. Once you enter the parking deck, take the elevator to the **BR** level and walk down the long hall to the front of the hospital. **Valet parking located at the Emergency room is very convenient to this location should you choose to use this service.**

You will check in at the **Main Surgical Waiting room**. The procedure staff will be notified that you have arrived and you will be escorted to the pre-procedure area. Your caregiver/loved one will be shown to the waiting area.

After checking in, patients are called to the pre-procedure area 1-2 hours prior to the scheduled procedure time. In the pre-procedure area, staff prepare you for the procedure by inserting IV lines, applying EKG electrodes to your chest, assessing your vital signs, and answering any questions, you may have. Because *MitraClip*[™] procedures vary in time and in some cases may run longer than expected; your procedure start time may be delayed. We will keep you and your loved one/caregiver informed of any delays that may occur.

GPS Address:

Piedmont Atlanta Hospital
1968 Peachtree Road
Atlanta, Georgia 30309

Keeping You Informed

A waiting room patient representative will keep your loved one/caregiver informed of your status throughout the procedure. Should your loved one/caregiver leave the waiting area, please instruct them to give a contact number to the cath lab waiting room patient representative. The cath lab waiting room patient representative will also arrange for consultation between the physician and your loved one/caregiver as necessary.

Following your *MitraClip™* procedure, you will be admitted to the hospital's Coronary Care Unit (CCU). A patient representative will notify your loved one/caregiver once your procedure is complete and you have received a CCU room assignment.



Image Source: Image created by Dawn Pittman with wordart.com

After your MitraClip™

Discharge planning begins when you enter the hospital. Because of the less invasive percutaneous approach for your valve replacement, your hospital recovery time will be much shorter than traditional surgical valve replacement. Please have your loved one/caregiver prepared for you to return home within 1-3 days following your procedure. Our goal is to get you home and back to your normal routine as quickly as possible.

If you currently use a walker or cane to assist with ambulation, please bring it with you to the hospital.

For the first 12-24 hours, you will recover in the CCU so your heart can be monitored closely. On Day 2, you may go home or move to a regular hospital room on the cardiovascular floor. You should anticipate discharge from the hospital on Day 2 or 3.

On the designated day of your discharge, please notify your loved one/caregiver that you will be discharged at approximately 12 p.m. noon.

Upon discharge, you should not need home care or rehab unless you were receiving these services prior to your procedure. This is a guideline and does not replace clinical judgement. If your care team feels that you are an appropriate candidate for these services, they will notify you.

Goals: 0-6 Hours

- You will be out of bed in a chair approximately 6 hours after your procedure.

Goals: 6-12 Hours

- You will begin walking 6 hours after your procedure. Please walk with a nurse your first time out of bed so he/she can assess your vital signs with activity.
- After your first successful walk, please encourage your loved one/caregiver to help you walk as much as possible.

Goals: Post Procedure Day 1

- Walk in the hall a minimum of 6 times a day.
- Sit up in the chair for all meals.
- Prepare for discharge.

You may go home when your physician team determines that you:

- Have a stable heart rate, blood pressure, and blood sugar.
- Have any pain under control to permit adequate breathing, movement, and sleep.
- Have discontinued oxygen use.
- Are independent in activities of daily living and walking, or have appropriate assistance and/or equipment for home.
- Have confirmed with your physician team that your 30-day follow-up appointment with the Marcus Heart Valve Center and an echocardiogram have been scheduled.

Home Care Following Your *MitraClip*[™] Procedure

Complete recovery can take several weeks due to the requirement of general anesthesia. Below are some guidelines to follow as you heal.

- **Care for your groin incision.** It is normal for your incision to be bruised, itchy, or sore while it is healing. Your incision may take a week or more to heal. Care for the bandage and incision as advised by your physician team. Wash the incision site every day with warm water and soap. Gently pat it dry and do not put powder, lotion or ointment on the incision until it is healed.
- **Shower with care.** Unless your physician team tells you otherwise, you can shower when you get home. Use warm water and mild soap. Do not scrub or apply pressure to the incision. Pat the site dry with a towel and do not rub. Use caution with hot water because it can make you feel lightheaded. Do not take a bath until your incision is completely healed. Do not submerge your incision in a swimming pool, lake or hot tub until completely healed.
- **Wear loose-fitting clothing** over the incision site until it is healed.
- **Avoid strenuous activity or exercise for at least 1 week** or as instructed by your physician team. Do not lift anything heavier than 10 pounds and take care not to put strain on your abdominal muscles when coughing, sneezing, or moving your bowels.
- **Walk.** One of the best ways to get stronger after your *MitraClip*[™] procedure is to walk. If your physician team agrees, start with short walks at home. Walk a little more each day. Take someone with you until you feel OK to walk alone.
- **You may resume sexual activity within 7 to 10 days**, unless your physician team instructs you differently.
- **Drive.** You may drive 1-2 weeks after your procedure or as directed by your physician team. Please make sure you have fully recovered from general anesthesia before you drive.
- **Dental Procedures:** Antibiotic prophylaxis with dental procedures is recommended following your *MitraClip*[™] procedure. Please inform your dentist of your mitral valve repair with *MitraClip*[™].

Home Monitoring

For two weeks following your *MitraClip™* procedure, monitor your heart rate, blood pressure, and weight using the Transcatheter Post Procedure Daily Log on the following page. Weigh yourself at the same time each day wearing similar clothing.

When to Seek Medical Attention

Seek immediate medical help by calling 911 or go to your nearest Emergency Department if you experience any of the following:

- Chest pain or trouble breathing
- Sudden numbness or weakness in your face, arms, or legs
- Bowel movement that is dark black or bright red
- Dizziness or fainting
- Increased swelling in your hand, feet, or ankles
- Shortness of breath that doesn't get better when you rest
- Heart rate faster than 120 beats per minute with shortness of breath
- Heart rate lower than 50 beats per minute or a new irregular heart rate.

Call the Marcus Heart Valve Center at 404-605-5617, or 404-605-5699 if after hours, for the following urgent problems:

- Chills or fever of 100.4°F (38°C) or higher
- Weight gain of more than 2 pounds in 24 hours or more than 5 pounds in one week.
- Extreme fatigue
- Redness, swelling, bleeding, warmth, or fluid draining at the incision site.

Marcus Heart Valve Center

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Transcatheter Post Procedure Daily Log

Call the Marcus Heart Valve Center if:

- Your temperature is above 100.4°F (38°C) or higher
- You gain 2 to 3 lbs. in a day or 4-5 lbs in a week
- A consistent blood pressure greater than 160
- Your incision has any redness, increasing tenderness/pain, or increasing amount of drainage.

Date	Heart Rate	Blood Pressure	Temp	Weight	Incision/Groin Site Inspection

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While every effort is made to provide accurate and current information, the information contained in this booklet is intended to be used for general MitraClip™ health care information purposes only, and should not be considered complete or used in place of a visit, call, consultation or advice from a physician and/or healthcare provider. Should you have any questions about the information found in this booklet, please call the Marcus Heart Valve Center Local or Toll Free line provided in this booklet and ask to speak to Dawn Pittman, RN.

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