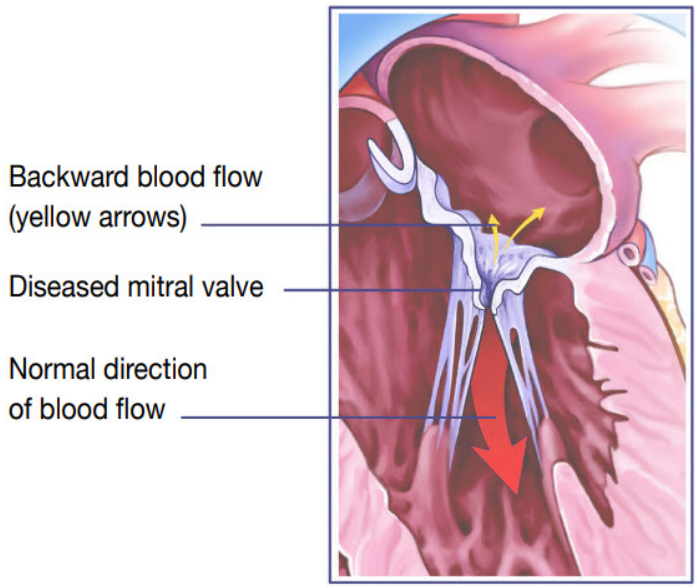
FRANKEL CARDIOVASCULAR CENTER
MICHIGAN MEDICINE

Understanding your Transcatheter Mitral Valve Repair (MitraClip)

What is a Transcatheter mitral valve repair (MitraClip)?

The MitraClip procedure is used to treat patients who are experiencing symptoms from mitral regurgitation. **Mitral regurgitation** occurs when your heart's mitral valve doesn't close tightly, causing blood to flow backward or "leak" in your heart. When blood flows backward through the mitral valve, it is pushed into the lungs, increasing the workload of the heart and often causing shortness of breath.



How is the MitraClip procedure different from traditional open heart surgery?

In traditional open heart surgery, an incision is made in the center of your chest and the heart is opened to repair or replace your mitral valve. You are also placed on a heart-lung bypass machine (cardiopulmonary bypass machine) to send blood away from your heart while it is stopped. The MitraClip procedure **does not** require opening the chest or temporarily stopping your heart (cardiopulmonary bypass). Instead, doctors access your heart to repair your mitral valve through a vein in your leg. The MitraClip procedure may be an option for people with mitral regurgitation who are too sick for surgery or considered too high risk.

What is the MitraClip device made of and how does it reduce mitral regurgitation?

The MitraClip device is a small metal clip covered with a polyester fabric that is inserted in your mitral valve. The MitraClip treats mitral regurgitation by clipping together a small area of the mitral valve (edge to edge repair). The valve will continue to open and close on either side of the clip. This allows blood to flow on both sides of the clip while reducing the flow of blood in the wrong direction. The MitraClip reduces mitral regurgitation but **does not** eliminate it.

How is the MitraClip procedure performed?

The procedure is performed in the hospital, in our hybrid catheterization lab. A team of doctors work closely together to perform the procedure. They use a special X-ray machine (fluoroscopy) and ultrasound machine (transesophageal echocardiogram) to see inside your body to guide the catheter (a flexible tube) during the procedure.

The following describes the procedure:

1. The doctor makes a small opening in a large vein in the groin area at the top of your leg (femoral vein).
2. A long, flexible tube (thin catheter) is threaded up to your heart using ultrasound and X-Ray imaging guidance.
3. A tool on the tip of the catheter makes a tiny hole through a thin layer of muscle (septum) that divides the chambers of your heart to insert the catheter and guide it to your mitral valve.
4. The MitraClip is inserted through this catheter to the leaking part of your mitral valve.
5. The MitraClip grasps and pulls the front and back leaflets of your mitral valve and clips them together allowing the valve to close better. This reduces the amount of blood leaking backwards.

6. Once the MitraClip is placed, the doctor removes the catheter and sheath.
7. After your procedure is complete, your breathing tube is removed.

What will my hospital stay be like?

After your procedure you will go to the hybrid operating room recovery area. The length of your stay in the recovery depends on several factors, including your recovery from anesthesia. Once you are considered stable, you will be admitted to CVC-5, our moderate care unit. Here our team will continue to help you recover from your procedure. Most people are likely to stay in the hospital for 72 hours.

What are the benefits of the MitraClip procedure?

With the MitraClip procedure, you may experience the following benefits:

- Quicker return to daily activities than with open heart surgery
- Shortened recovery time
- Improved quality of life approximately 4 weeks following the procedure, including the ability to return to normal daily activities
- Shorter hospital stay
- Relief of symptoms
- Reduced pain and anxiety
- Improved heart function
- Reduction in hospital stays for heart failure

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