



# MITRAL CLIP

## A 'Clip' to Remember:

*Information & Recovery Guide*



**Sunnybrook**

SCHULICH HEART CENTRE

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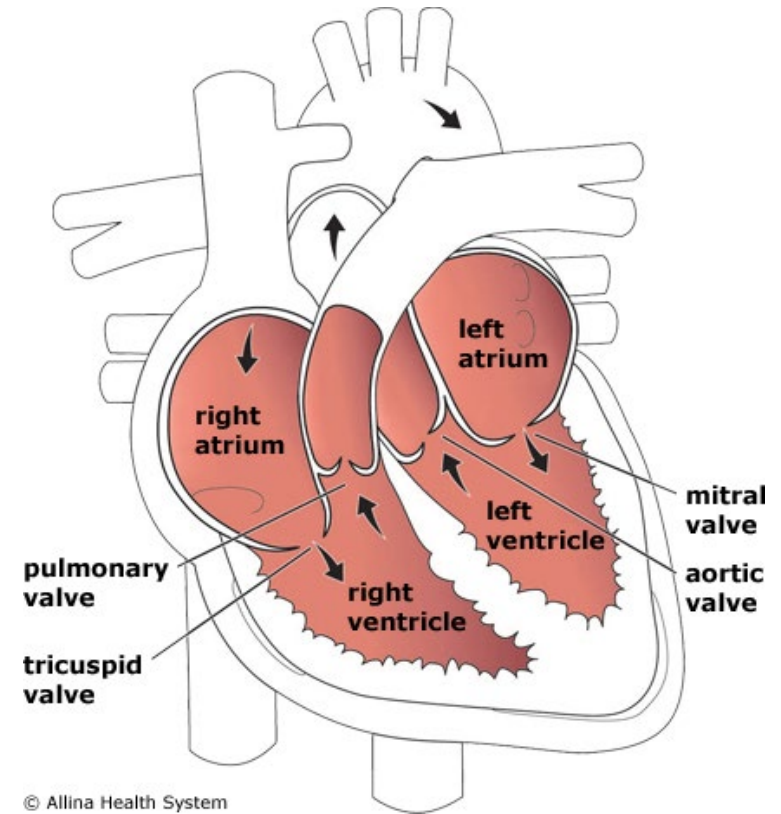
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### Disclaimer

This booklet provides a brief overview on Mitral Clip procedures. It is not intended to replace the doctor's advice or treatment.

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## HOW THE HEART WORKS



- The heart consists of 4 chambers and 4 valves
- 4 Chambers: Right Atrium (RA), Right Ventricle (RV), Left Atrium (LA), Left Ventricle (LV)
- 4 Valves: Tricuspid, Pulmonary, Mitral, Aortic
- The arrows above show the direction of blood flow through the heart (starting at right atrium)

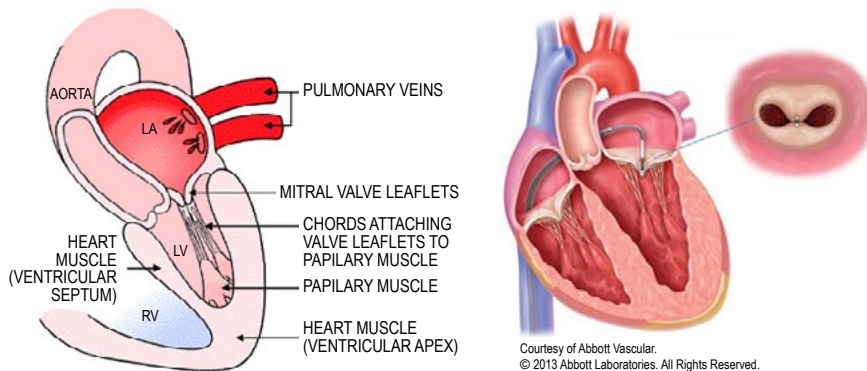
Valves act like doors between the chambers of your heart. They control the flow of blood by opening and closing tightly with each heartbeat. If valves becomes too narrow, then blood cannot move forward (**Stenosis**). If valves do not close properly, then blood will flow backwards (**Regurgitation/Insufficiency**).

## CAUSES OF MITRAL REGURGITATION

Sometimes the mitral valve does not close properly, this could be caused by valve structure changes, such as: stretchy cords (chordae) weak or floppy leaflets, damage to the papillary heart muscle, or widening of the valve ring.

If your 2D ECHO report shows structural valve changes, or you are at high risk for conventional surgery, then your doctor will discuss the option of placing a MitraClip™ device.

Blood coming back from the lungs fills the left atrium (LA)



## Mitral Clip Procedure Benefits

- Improved heart function
  - Mitral regurgitation reduction
  - Reversal of heart enlargement
- Improved symptoms
- Fewer future hospitalizations
  - (e.g. due to Heart failure)
- Improved quality of life
- Reduced risks for complications during and post procedure

## BEFORE PROCEDURE

- No eating or drinking from midnight before the procedure. You may have sips of water to take your medications.
- Please bring a list of all your current medications. Some may be held before the procedure.
- Mitral Clip doctors and anesthesiologist will meet with you to examine you, review your medical history, discuss the procedure, and get consent.
- You will receive a Mitral Clip booklet. Your health care team can clarify your questions or concerns.
- **2D Echo:** ultrasound of your heart to check how your mitral valve works.
- Intravenous line (IV) will be inserted in your arm, so medications can be given through the vein.
- **Blood tests:** blood work will be drawn to get your baseline levels & find out your blood type.
- Both groins will be clipped (including fold areas between upper thigh and lower abdomen). This is where the doctors will get access for your procedure.
- Urinary catheter will be inserted (before or during procedure).
- You will be asked to remove the following items if you wear them: dentures, glasses, hearing aids, watches, or jewelry.

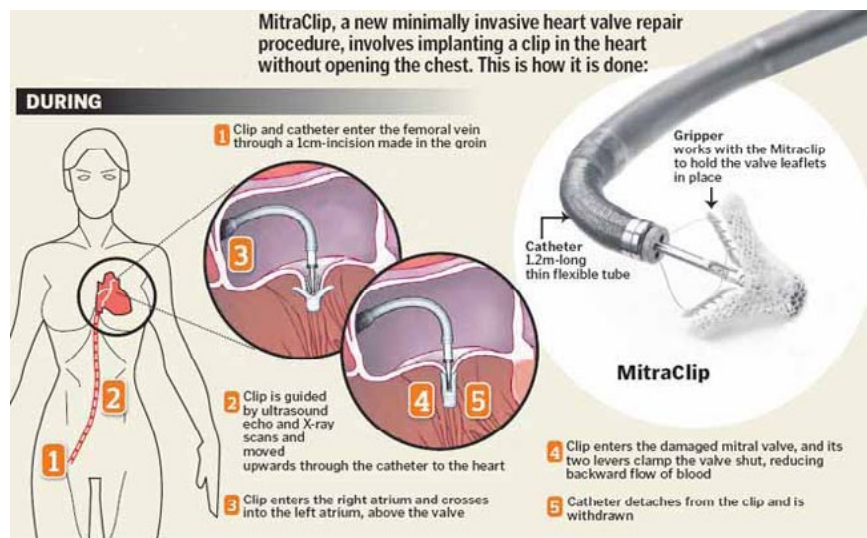
## DURING PROCEDURE

You will be taken to the procedure room by a team of Cath Lab RNs. The procedure will be done under general anesthesia. You will have a breathing tube inserted into your mouth.

A thin flexible catheter tube will be inserted through your groin in a vein, to transport a MitraClip™ device to your mitral valve. Using ECHO and x-ray imaging, the doctor locates the area where backflow of blood (**regurgitation**) is occurring and securely places the clip in that spot. One or more clips may be used when needed to ensure no more back flow will occur.

On both sides of the valve leaflets where the MitraClip™ is placed, your mitral valve will still open and close with each heartbeat, allowing blood to flow forward into your left ventricle.

The procedure usually takes about 2 to 4 hours. After the procedure you will be taken to Gilbert C3 CICU for closer monitoring.



SOURCE: MASSACHUSETTS MEDICAL SOCIETY, ABBOTT LABORATORIES, DAILY MAIL TEXT: AMELIA TENG ST GRAPHICS

## AFTER PROCEDURE

**Cardiac monitor:** to check your heart rate and rhythm.

**Arterial line:** for blood pressure monitoring and drawing blood.

**Central line:** for fluids, medication access, and for temporary pacemaker wire.

**Intubation (rarely):** if you are unable to breathe by yourself as a result of sedative medications given during the procedure, you may return to CICU with a tube in your mouth that is connected to a ventilator machine. This will help with your breathing.

**Urinary catheter:** to monitor urine output.

**Femoral access:** dressing will be monitored for bleeding. Sandbag may be placed over access site and will require you to remain flat for at least 2 hours.

**Pain control:** tell your nurse when you have pain or discomfort, and you will be given prescribed pain medications.

**2nd day post-procedure:** you will have a 2D ECHO to assess the placement of the Mitral Clip and your overall heart condition.

## LENGTH OF STAY

You may stay in Gilbert C3 CICU for 2 days, and then you may get transferred to the D3 Cardiology Ward, or be discharged home.

## INFORMATION ABOUT PERCLOSE™ PROGLIDE CLOSURE DEVICE

To securely close the femoral vein accessed by your doctor to perform the Mitral Clip procedure and prevent bleeding, a device called Perclose™ Proglide is used to make suture knots. A sterile dressing is then placed over this site. Healing of the closure area does not necessarily rely on blood clot formation thus it lessens your time to remain flat in bed after the procedure.

Your nurse will closely monitor the site for bleeding, and check if you are having a lot of pain. Please tell your nurse about any pain or discomfort you might experience.

Sutures will dissolve within 30 days or less. After 48 hours, your nurse will remove the dressing and clean the site using aseptic technique and place a bandage over the site.

*Please be aware:*

*Specific individualized instructions on how long you should remain flat in bed will be provided to you by your nurse and doctors*

## CARE OF FEMORAL ACCESS SITE AT HOME

- Avoid driving on the day of your discharge. Please ensure you arrange for someone to drive you home.
- For 2-3 days, you should refrain from straining or lifting anything greater than 10 lbs. (5 kg).
- At home, keep the dressing on and ensure it is clean and dry for 24 hours. You may sponge bath. Do not shower, soak in a hot tub, or swim until the skin site is healed.
- After 48 HOURS the dressing may be removed and gently cleaned with mild soap and water.
- Check the site daily. Change the dressing if it becomes soiled or wet.
  - You may shower once site looks completely healed and dry.

### **Things that you may normally observe on the site:**

- Feel a small lump (*dime or pea sized*)
- Soreness/mild tenderness in the groin area
- Possible mild bruising from incision site

### **Call your doctor if you experience any of the following:**

- Significant bleeding (dressing getting soaked) at the site that does not stop after 10 minutes of manual pressure.
- Unusual pain in the groin region and/or radiating down the leg or to your lower back.
- **Signs of infection:** Fever, site warm to touch/redness, excessive wound drainage and poorly healing incision.

## ACTIVITY GUIDELINES

The Physiotherapist (PT) and CICU Nurses will assist you to get mobilizing as soon as possible.

### Post-Op Day#1

- Deep breathing exercises, 5 times every hour
- Ankle pumping exercises, 5 times every hour
- Gently move arms and legs
- Sit in chair at bedside
- Stand at bedside and march on spot
- Walk within room as tolerated

### Post-Op Day#2

- Deep breathing exercises, 5 times every hour
- Ankle pumping exercises, 5 times every hour
- Gently move arms and legs
- Sit in chair at bedside
- Walk in the unit hallway

### At Home

- Avoid lifting heavy objects greater than 10 lbs. (5 kg)
- Avoid strenuous activities for at least the 1st month
- Avoid activity in extreme temperatures
- Continue your walking regimen. Gradually increase walking time and frequency as tolerated
- You may be referred to a Cardiac Rehab Program

## DISCHARGE AND CONTACT INFORMATION

### You will be given:

- Discharge summary note
- Medication prescription
- Medication information sheets
- Discharge education
- MitraClip™ Identification Card  
(Carry in your wallet at all times)

The Mitral Clip Doctor's secretary will contact you about follow-up visits at the Structural Heart Clinic. Appointments will be scheduled at the following time periods: **3 months and 12 months** after your procedure. Each visit will include a 2D ECHO assessment.

The Structural Heart Clinic at Sunnybrook Health Sciences Centre is located at Room A253. Phone: 416-480-6100 ext. 5505.

Contact/notify your doctor if you experience similar symptoms that you had prior to the mitral clip procedure.

## NOTES

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