

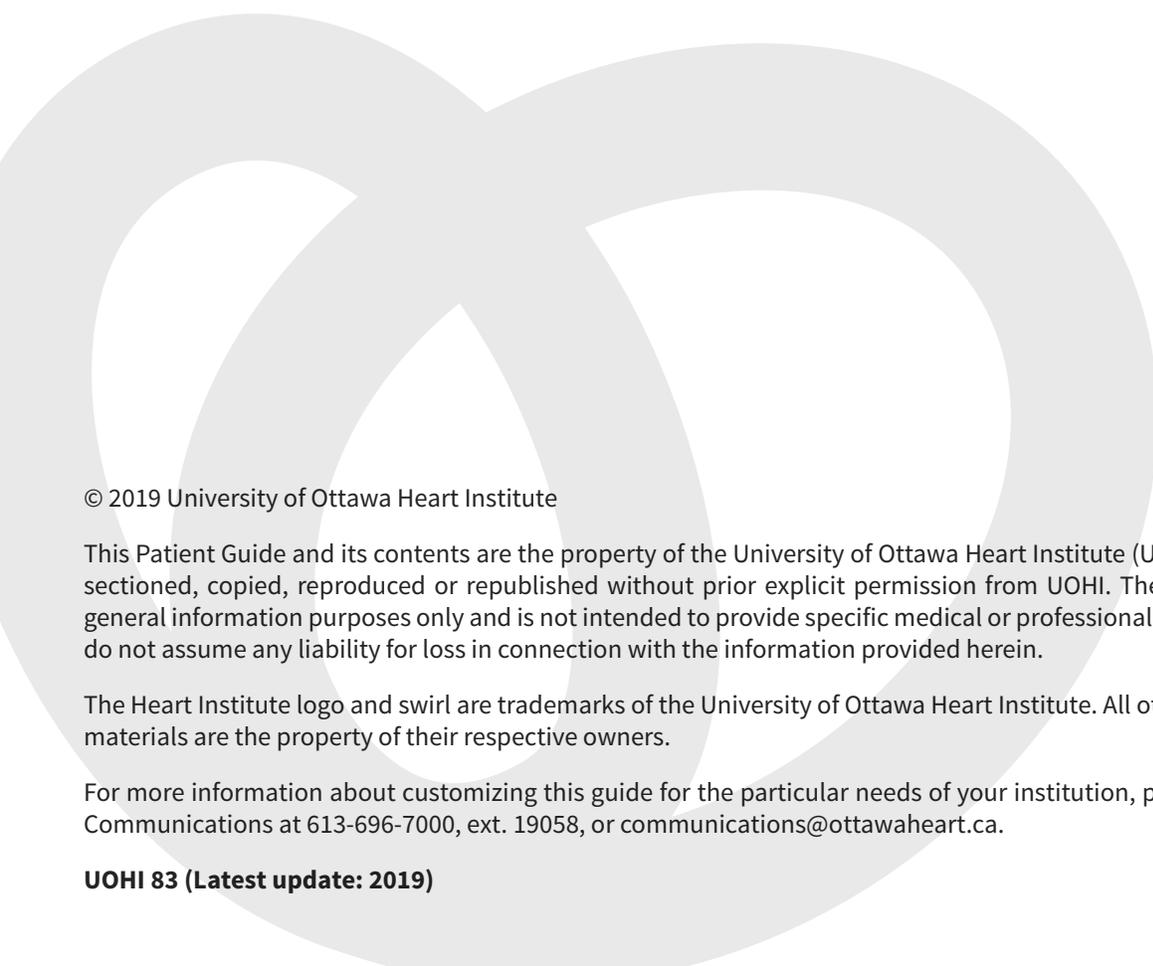


UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

MitraClip



A GUIDE FOR PATIENTS AND FAMILIES



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UOHI 83 (Latest update: 2019)

PLEASE BRING THIS BOOKLET WITH YOU TO THE HEART INSTITUTE

Patient Name: _____

Name of Procedure: _____

Date of Procedure: _____

Cardiologist: _____

Cardiac Surgeon: _____

MitraClip Coordinator: Phone: 613-696-7212 _____

IMPORTANT

nursing coordinator: 613-696-7000, press 0 and ask for the nursing coordinator

The nursing coordinator is available 24 hours a day if you have any questions or concerns.

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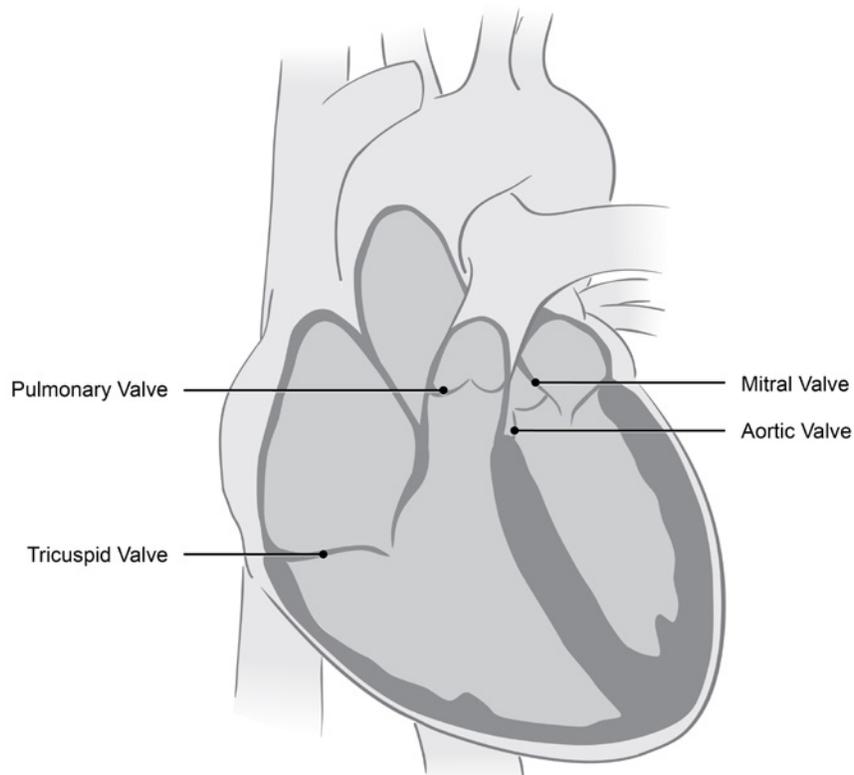
REFERRAL FOR MITRACLIP THERAPY

Your doctors have recommended a mitral valve repair using the MitraClip device to treat your mitral regurgitation. The purpose of this guide is to help you and your family prepare for your procedure at the University of Ottawa Heart Institute. Appendix 1 at the back of this booklet explains some of the terms you might not be familiar with.

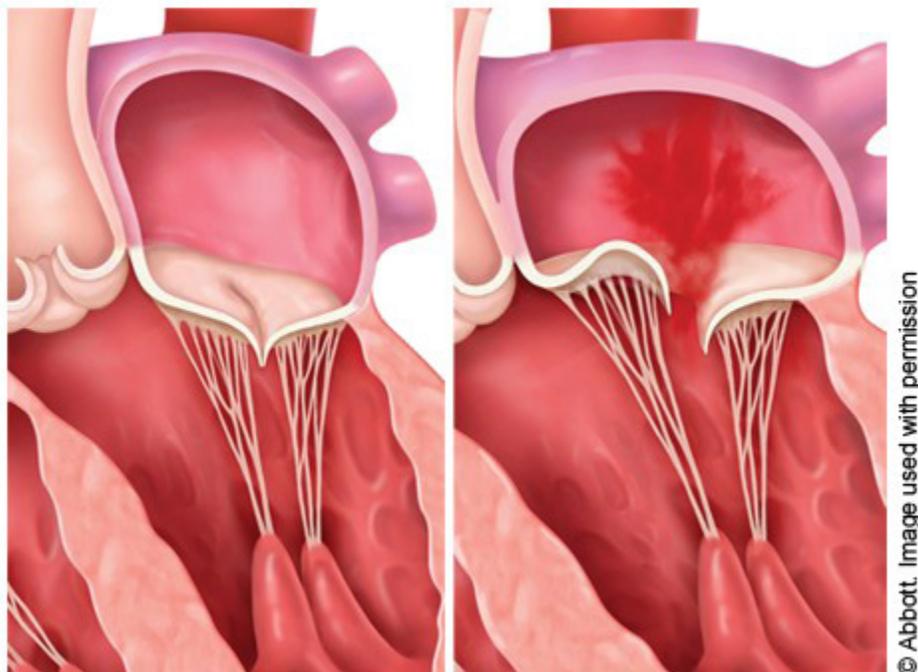
About Mitral Regurgitation

Mitral regurgitation (MR) is a condition in which the heart's mitral valve does not close tightly enough. This lets some of the blood in your heart "regurgitate," or flow backward, into your heart chambers.

Your heart contains four valves. They are key to the proper flow of blood through the heart. The mitral valve is on the left side of your heart and controls blood flow from the atrium to the ventricle. This valve has two leaflets that open and close to ensure blood travels in only one direction within the heart.



In people with MR, the mitral valve doesn't seal completely and blood leaks backward. As a result, the heart must work harder to push blood through the body. Common symptoms caused by the increased workload include fatigue, shortness of breath, coughing, an irregular heartbeat and worsening heart failure. MR is a progressive disease that can eventually impact your quality of life and make daily activities more difficult.



Left: Normal - Right: Degenerative MR - Prolapse

Selection Process for MitraClip Therapy

The goal of treatment is to decrease the mitral regurgitation and improve your quality of life. Medications may be prescribed to help reduce the symptoms you experience, but they cannot fix the valve itself.

The current gold standard for treating a severely leaking mitral valve is to perform open heart surgery. The purpose of surgery is to either replace the valve with an artificial one (mitral valve replacement) or repair the existing mitral valve.

In open heart surgery, a heart-lung machine is used to take over the role of your heart while it is being worked on. To repair or replace the mitral valve, the surgeon accesses it in one of two ways. One is through a large incision in the middle of the chest (sternotomy incision).

The other is through a smaller incision in the chest (minimally invasive surgery). In both cases, open heart mitral valve surgery is an effective and-proven way to cure mitral regurgitation, but not all patients are candidates for open heart surgery.

If you are very ill or have many other medical problems, open heart surgery may be considered too high risk. If this is the case, you may be given a referral for a MitraClip procedure. Your eligibility for this procedure will be decided by a specialized team, including a cardiologist experienced in percutaneous (catheter-based) procedures, a cardiac surgeon experienced in valve repair, and a cardiac anesthesiologist experienced in the complex management of patients during these procedures.

Your cardiologist or internist diagnosed you with severe MR after seeing the results of a transthoracic echocardiogram (TTE). This test and your condition triggered a consultation with the MitraClip team. You will need to undergo another test, a transesophageal echocardiogram (TEE), at the Heart Institute to provide the team with the specific measurements of your mitral valve. With this information, the MitraClip team will discuss your case. The purpose of this discussion is to make sure you are getting the right procedure at the right time, along with the best care before and after your procedure.

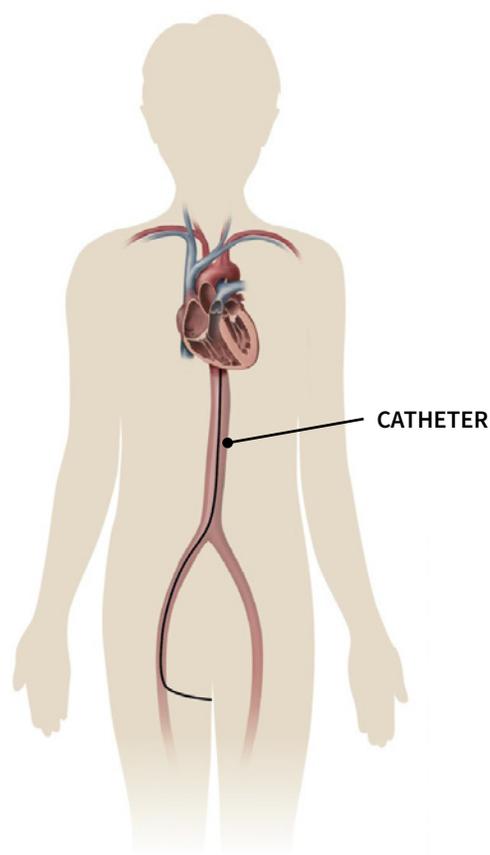
If you are not accepted for a MitraClip procedure, it means you would not benefit from it. You may be better served by open heart surgery or by having no procedure at all and continuing with your current medical therapy. The next step in your care will be explained to you by one of the physicians on the MitraClip team.

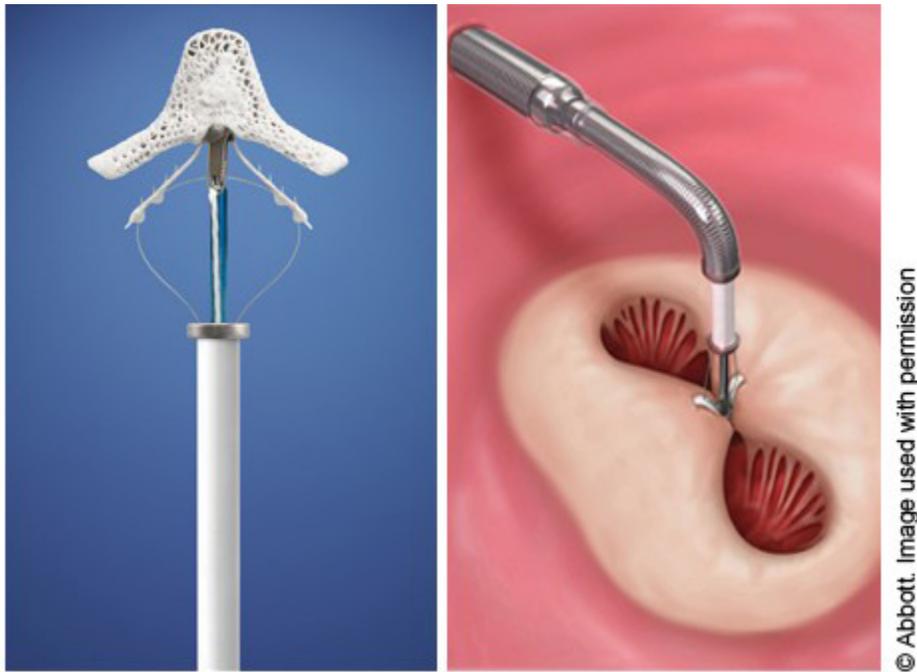
About the MitraClip Procedure

Over the past few years, the MitraClip device has been used in many patients to correct blood flow through the mitral valve without open heart surgery. The MitraClip procedure is performed in a cardiac catheterization lab, not in the cardiac operating room. This procedure is done with a catheter that is inserted through a needle hole (percutaneously, or via the skin) in the groin. The catheter—a long, flexible tube—is inserted into a large vein in your groin (femoral vein) and guided to your heart. It is positioned using ultrasound and X-ray images.

Once the tip of the catheter has reached your heart, your mitral valve is assessed using a transesophageal echocardiogram. The TEE also aids in the correct placement of the MitraClip. A tool on the tip of the catheter makes a tiny hole through the upper chambers (atria) of the heart so that the catheter can be inserted and guided to the left side, where the mitral valve is located.

Through the catheter, the MitraClip is then inserted and positioned by ultrasound to the leaking portions of the valve. The clip is attached to the mitral valve leaflets, fastening them firmly together and allowing the valve to close better. It is not uncommon for two MitraClips to be used to fix an extremely leaky valve. You will be given general anesthetic so that you will be asleep during the entire procedure.





Left: MitraClip Device Attached to Catheter - Right: MitraClip Closing the Valve

The advantage of this procedure is that it is less invasive than open heart surgery and may reduce the recovery time. The small puncture in your groin, where the catheter is inserted, heals quickly. This is a reasonable alternative to medical treatment (medications) for patients who are not candidates for open heart surgery (such as the very old and frail, patients with very weak hearts and those who have other non-cardiac conditions involving the lungs, kidneys or brain). Patients who have had previous open heart surgery are also considered for the MitraClip procedure because they may be at higher risk for a re-operation.

On the other hand, the MitraClip procedure is still being studied and evaluated for its long- term effectiveness. Not everyone is a candidate for the MitraClip device. It is used only in a limited group of patients with a certain anatomy and type of leakage. The majority of patients with leaky mitral valves should be treated with traditional surgical methods.

The Mitraclip Team At The Heart Institute

At the University of Ottawa Heart Institute, the MitraClip procedure is usually done by a medical team that includes both a cardiologist and a cardiac surgeon. Depending on the day your procedure is booked, the cardiologist and surgeon may be different from the doctor you met at your first appointment.

CARDIOLOGISTS	CARDIAC SURGEONS
Dr. M. Labinaz	Dr. T. Mesana
Dr. B. Hibbert	Dr. V. Chan

THE MITRACLIP COORDINATOR

While you are waiting for your MitraClip procedure, expect to be contacted by the MitraClip Coordinator. The MitraClip Coordinator will work with you and your family to coordinate your preparation for the procedure and to help you plan for your safe recovery after discharge from the hospital. While you are waiting, the MitraClip Nurse is your first contact point and is available by telephone to answer questions or assist as needed.

THE MITRACLIP COMMITTEE

Once all your appointments and tests are complete your doctor will discuss your particular situation at the MitraClip Committee meeting. The MitraClip Committee includes all the MitraClip doctors along with doctors who specialize in reading echocardiograms, the MitraClip Coordinator, other nurses, and anesthesia.

The purpose of the meeting is to review and discuss all of your information and recommend the best option for treating your aortic stenosis.

DECIDING THE BEST OPTION

Although the MitraClip team makes recommendations, the final decision for your treatment will be made jointly by you and your doctor. Before making your decision, make sure your questions are answered and that you are clear about how the MitraClip procedure will help you. See Appendix 2 for a list of questions to ask your doctor.

WAITING FOR A MITRACLIP PROCEDURE

The wait times for MitraClip at the Heart Institute are carefully monitored by the MitraClip team. The length of time that you are waiting for your MitraClip procedure will depend on how urgent your condition is. For people who are in stable health, the average wait time is three to four months.

BOOKING DATES AND CHANCE OF CANCELLATION

You will be notified of your booked procedure date a few weeks in advance. Final confirmation of your date will not occur until the week before. In some cases, booked MitraClip procedures need to be cancelled because there are more urgent patients or other emergencies. Having your procedure cancelled is very difficult for both you and your family members. The decision to cancel a procedure is not made until every possible option has been considered. If this happens we will notify you immediately and we will make every effort to reschedule your procedure for the earliest possible date.

WHAT YOU SHOULD DO WHILE WAITING FOR YOUR MITRACLIP PROCEDURE

The waiting period can be stressful for both you and your family members. It is normal to worry and to have ongoing concerns. If you have questions or concerns about the MitraClip procedure or about the wait times, you can contact the MitraClip Coordinator at any time during normal business hours. It is better to get your questions answered early than to wait until the morning of the procedure.

KEEP TRACK OF YOUR SYMPTOMS

Over time, as your MitraClip regurgitation progresses, your symptoms such as tiredness and shortness of breath may worsen and you may find it harder to do your normal everyday activities. If you experience a gradual worsening of your symptoms, contact your family doctor. You may need to be checked more frequently or some of your medications may need to be adjusted.

Call 9 1 1 or go to the nearest emergency department if:

- you begin to have chest pain or discomfort that is new or is not relieved with nitro spray,
- you have shortness of breath all the time, even while you are resting.

If you have a sudden change in your condition, or if you are admitted to the hospital, ask a family member to notify the MitraClip coordinator.

MAINTAIN YOUR HEALTH

Continue to be active every day even if only for short periods of time. Check with your doctor about what level of activity is best for you. Slow down if you become short of breath or feel faint.

EAT A HEALTHY DIET

Good nutrition before your MitraClip is important and may help you to heal more quickly after your procedure. It is important to make sure your body is getting the right nutrition at this time. Here are some tips that will help you eat well before your MitraClip procedure.

- Eat at regular times. Eat breakfast within one to two hours after waking up. Don't wait too long between your meals. It's harder to make healthy choices when you're hungry.
- Meals don't have to be complex to be nutritious. It can be as simple as toast with peanut butter, fruit and a glass of milk, or scrambled eggs with whole wheat crackers, sliced tomatoes and a yogurt.
- Plan healthy snacks. Try whole grain crackers and peanut butter or hummus, a piece of fruit and some cheese, or frozen berries and plain Greek yogurt.
- Include protein sources at every meal and snack. Try nut butters on your toast. Add canned fish to your salads or chicken to your soups. Cook more meat than you need and freeze the extras. The meat is ready to reheat and add to dishes when you need it.
- Have easy to prepare meals and snacks readily on hand for when you don't feel like cooking, such as granola bars, nuts, Greek yogurt, pudding or cheese and crackers. You might want to use a service like Meals on Wheels or ask friends and family to help you with groceries and making your meals.
- Don't be afraid of fat. You need fat for good health and it adds flavour to your cooking. Use plant-based fats such as olive or canola oil.
- If your doctor has restricted the amount of fluid and salt in your diet, continue to follow those recommendations.

IF YOU ARE LOSING WEIGHT WITHOUT TRYING

Sometimes, when you are feeling sick, you can lose your appetite. You may lose weight quickly and without trying. If you notice this is happening to you, tell your doctor or the MitraClip Nurse. They may refer you to see the registered dietitian in Cardiac Rehab at the Heart Institute.

Below are some tips to help in the meantime.

- Eat smaller amounts of foods more often. Try eating every two to three hours.
- Eat more food when your appetite is best.
- Make every bite count. Eating half of a meal is still better than having nothing.
- Ideas for nutritious snacks include whole grain crackers and peanut butter or hummus, a piece of fruit and some cheese, frozen berries with granola and plain Greek yogurt or an egg salad, chicken salad or tuna sandwich.
- Opt for milk, milkshakes, yogurt beverages or nutritional supplements such as Ensure instead of low-energy fluids such as water, broth, tea or coffee.
- Have easy to prepare meals and snacks readily on hand for when you don't feel like cooking. Suggestions are granola bars, nuts, Greek yogurt, pudding or cheese and crackers.
- You might want to use a service like Meals on Wheels or ask friends and family to help you with groceries and making your meals.

- Add fats and oils at each meal. Top your salads, vegetables, pasta or rice with a few teaspoons of liquid oil such as olive or canola. Spread margarine or butter on your bread, vegetables and potatoes. This will increase the energy content of your food.
- Avoid reduced-fat foods such as foods labeled “light,” “low fat” or “fat free.”
- Try adding powdered milk to your soups, breakfast cereal, puddings or scrambled eggs for extra protein.

MEDICATIONS

Continue to take all of the medications your doctor has prescribed. Talk to your doctor before starting any new medications or before making changes to your current list. If you have diabetes, take your diabetes medication the way your doctor prescribed and keep track of your blood sugar.

PLAN FOR YOUR DISCHARGE AND CONVALESCENCE AFTER YOUR MITRACLIP PROCEDURE

The expected length of stay in the hospital after your MitraClip procedure is one to three days. Most patients tell us it takes about a month to feel fully recovered. Your discharge plan must ensure help and support is available to start as soon as you are discharged.

If you live alone, arrange for a family member or friend to stay with you for a week after discharge. If this is not possible, consider convalescent care in the community. There are different convalescent options available.

If you need more information about convalescence or if you are worried about discharge, talk to the MitraClip Coordinator before you are admitted for your procedure.

PRE-ADMISSION UNIT

Once you are accepted for your MitraClip, you will be scheduled to visit the Pre-Admission Unit (PAU).

The purpose of your appointment at the PAU is:

1. To meet with the anesthesia doctor.
2. To have the final tests done to ensure you are ready and okay for a MitraClip procedure
3. To do a final check of your medications.
4. To answer any final questions you may have.

Expect to be at the Heart Institute for about two and a half hours. For your appointment, please bring:

- All of your medication bottles including any vitamins or supplements.
- Your provincial health insurance card and proof of any other health insurance.
- Any walking aids you regularly use.
- It is also helpful to bring a family member or friend who can help you by taking notes or asking questions.

Before your PAU appointment, the MitraClip Nurse will call you to complete an assessment and to talk to you about the MitraClip procedure and what to expect while you are in hospital as well as your plans for discharge and recovery at home.

If you have not heard from the MitraClip Nurse, please call 613-696-7212.

PREPARING FOR YOUR STAY AT THE HEART INSTITUTE

Expect to stay at the Heart Institute for about one to three days after your procedure.

When you are admitted, bring only the personal items you will need along with your slippers (with nonslip soles), housecoat, glasses, hearing aid, and any walking aids you use.

Make sure you also bring:

- Your health card
- All of your medications
- The name and phone number of your contact person

Please bring this guide with you to the Heart Institute. The physiotherapist and the nurses will use it during your stay to guide you and your family as you are recovering from your procedure and preparing to go home.

Leave any valuable items at home. They could be lost or damaged. The Heart Institute is not responsible for loss or damage to personal belongings.

If You Are Coming in on the Same Day as Your Procedure

Most people who have a MitraClip procedure come to the Heart Institute the morning of the procedure. Once your procedure date is confirmed, you will be contacted the day before with final instructions about when to come in to the Heart Institute and where to present yourself. If you usually take medications in the morning, ask the staff for final instructions.

If You Are Coming in the Day Before Your Procedure

In some cases, people are admitted the day before their MitraClip procedure. If you are asked to come in the day before your procedure, call the Admitting Department at 613-696-7060 between 9:00 a.m. and 9:30 a.m. on the same day you will be admitted to learn when your bed will be available.

WHAT TO EXPECT DURING YOUR STAY

Before Your Procedure

The evening before the procedure, you will need to take a shower using antiseptic soap (the soap will be provided). From midnight on, you must not eat or drink anything.

The doctor will decide what medications you may take the morning of your procedure.

The nurse will shave a small area on both sides of your groin, and you will take another shower using the special soap.

Before you are taken to the cardiac hybrid procedure room, the nurse may give you some medication with a sip of water if ordered by the doctor. The medication may relax you and make you sleepy.

During the MitraClip Procedure

Your procedure will take about three hours (sometimes a little longer). You will receive general anesthetic so that you will sleep during the procedure and feel no pain.

After you are asleep, the anesthesiologist will put a breathing tube in your mouth. The tube is connected to a breathing machine. Usually the breathing tube is removed before you are fully awake. If you still need support with your breathing, the breathing tube will not be removed until after you are in the Coronary Care Unit.

All other equipment, such as intravenous lines, a heart monitor and a tube to drain your bladder, will be put in after you are asleep.

Once your MitraClip procedure is completed, you will be transferred to the CCU. The doctor will contact your family to let them know your status.

The doctor can either talk to your family in person or call a designated family member or friend on the telephone.

If your family members want to speak to the doctor in person, they will be referred to the lobby volunteer desk, where they can register with the volunteers and wait in the Family Lounge.

If you would like the doctor to call a specific family member, the staff will ask you for the name and phone number at which your family member can be reached.

The staff will ensure those arrangements are made with you and your family before your procedure begins.

AFTER THE MITRACLIP PROCEDURE

In the Coronary Care Unit (CCU)

CCU VISITING HOURS

Visits to the CCU are arranged through the volunteer desk on the main floor of the Heart Institute. Your family and friends can wait in the Family Lounge on the main floor while the volunteers arrange the visit.

PROGRESS REPORTS

While you are in CCU, we recommend you appoint one family member to act as a contact person. Your contact person can call the CCU at 613-696-7000 x 14751 to ask about your progress at any time.

WHILE YOU ARE IN THE CCU

Most patients arrive in the CCU breathing on their own. If a breathing tube is still needed, it will be taken out as soon as you are awake and able to follow directions. There will be a nurse with you at all times until you are awake and breathing on your own.

For the first two to four hours after your procedure, expect the nurse to be constantly reminding you to keep both legs straight. This is very important to prevent bleeding from the insertion sites in your groin, where there may still be some intravenous lines.

You will stay in the CCU overnight or longer, if necessary. Your nurse will check with you regularly to make sure you are comfortable. Let the nurse know if you have any pain.

Depending on your progress, you will gradually start to increase your activity, beginning with sitting up in bed, then sitting in a chair, and then getting up and walking as tolerated with assistance.

Overnight, you will be allowed clear fluids as tolerated. You should be able to resume your normal diet the next day.

Most of the specialized monitoring equipment will be removed by the morning after the procedure. Once you are in stable condition, you will be ready to leave the CCU.

The day after the procedure, you will undergo a repeat transthoracic echocardiogram to assess the function of the MitraClip device. You will also have blood tests, a chest X-ray and an electrocardiogram (ECG).

A nurse will check your insertion site for any problems and teach you what to look for as you heal. In the morning, a stitch will be removed from the insertion sites in your groin. A small bruise or a small, soft lump where the line was placed for the procedure is normal. It is also normal to experience bruising at the site, which sometimes spreads down your leg.

Notify your nurse or doctor if you have any of the following problems with the insertion site:

- An expanding lump or a persistent area of redness and warmth
- Yellow drainage from the insertion site
- Worsening numbness in your leg
- Severe discomfort at the insertion site

GOING HOME

Managing at Home

You and your family must start planning for your return home before your admission to the hospital. For most people who undergo this procedure, it takes up to a week to recover.

Most patients return home after 1-2 days in the hospital.

Physical Activity

You should not lift, push or pull anything that weighs more than 10 pounds for the first five days after discharge. Even though you may feel ready to resume your normal activity, we recommend you take it easy for at least one month after discharge. If you need to climb stairs, try to limit this to a couple of trips a day for the first week. When you are stronger, you may go up and down stairs as desired.

Continue with any physical activity plan you may have started in the hospital.

Why Your Physical Activity Plan Is So Important

After your MitraClip procedure, your physical activity program is designed to help you recover and get your energy back.

Exercise helps you:

- Feel less tired
- Feel less short of breath
- Sleep better
- Gain more energy to do what you love
- Improve your mood
- Have less difficulty with daily activities
- Feel more confident and in control

Learn to Balance Your Activity with Rest

Give yourself time to get back to normal. Most patients say it takes about a month to feel fully recovered. Use the tips below to save your energy and help your recovery:

- **Prioritize:** Decide which tasks you really need to do yourself and which tasks you can ask someone else to do.
- **Plan:** Do the things that use up your energy when you are feeling your best. Make sure you build in rest or relaxation periods during the day.
- **Pace:** Break down hard jobs into smaller tasks and take regular breaks before you become tired.
- **Position:** If you sit to perform a task, you will use 25% less energy than if you stand. Avoid unnecessary bending or overhead reaching.

PRACTICAL TIPS

- Organize your time so that you take fewer trips up and down stairs.
- Double the recipe when you cook, and freeze some for another day.
- Use lightweight pots and pans for cooking.
- Consider equipment such as a shower chair, long-handled reacher or grabber, and long-handled shoe horn.
- Get extra rest the day before a celebration.
- Get extra rest during times of emotional stress or illness.
- Use a weekly schedule.

Your Walking Program

Exercise should be fun, easy to do and part of your everyday life. Walking is one of the best exercises for improving your health after a MitraClip procedure.

Plan to walk every day. Have someone walk with you for the first couple of weeks. You should be able to carry on light conversation while you walk. If you are too short of breath, slow your pace or take a brief rest.

Begin with short periods at a slow pace, such as two to five minutes, once a day. Continue for about two weeks, and if it feels comfortable, gradually increase the length of time you walk for another two weeks. Continue until you reach your goal.

Your goal is to work up to 20 to 30 minutes of walking every day.

If you can't walk five minutes without stopping, try interval training:

- Walk for two to five minutes and then rest for two to five minutes.
- Repeat as many times as you are able.
- Gradually decrease the resting time between intervals.

Exercises

While you are exercising:

- You should be able to carry on light conversation.
- Start with a warm-up and end with a cool-down (for example, slower walking, seated or standing exercises).
- Walk on flat ground (avoid hills).
- Wait at least one hour after a meal before exercising.
- Exercise at a time of day when you feel rested—generally morning rather than afternoon.
- Avoid extreme heat or cold. You might consider walking indoors at a mall, using a treadmill (with no incline) or a stationary bicycle (with little or no tension).
- Avoid heavy lifting or pushing.
- Avoid activities that involve lifting weight above your head.
- Avoid exercises that make you strain, grunt or hold your breath.
- You should be breathing like you normally do in your resting state within 10 minutes of completing your exercise. If not, reduce the length or intensity of exercise the next time.

WHEN TO STOP AN ACTIVITY

Always listen to your body.
Stop the activity if you:

- Cannot carry on a conversation without being short of breath
- Feel weak or dizzy
- Feel sick to your stomach (nauseated)
- Feel your heart is pounding or racing
- Have any discomfort

Stop and rest. Sit in a comfortable chair.

If these symptoms persist, call 9-1-1.

WARM-UP: SITTING EXERCISES

Deep Breathing

Place hands on stomach and take a deep breath. Feel hands move out. Exhale fully and feel hands move in.

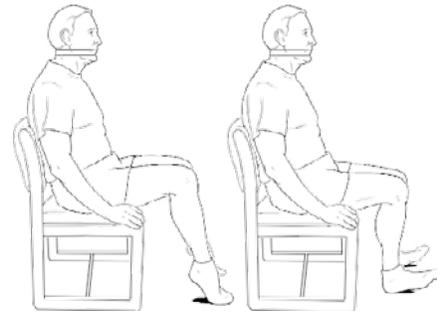
Repeat ___ times.



Ankle Pumps

Push down on your toes as you lift your heels off the floor as far as you can. Then return your feet to the starting position and lift your toes off the floor.

Repeat ___ times.



Knee Raises

Raise one knee up toward your chest and then lower it to the starting position. Repeat with other knee. Keep alternating right and left.

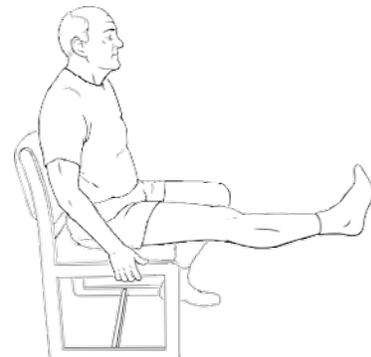
Repeat ___ times.



Knee Extension

Sit with your back straight and hands in your lap or at your sides. Slowly straighten one knee. Hold for three seconds and then lower it to the starting position.

Repeat ___ times with each leg.



COOL-DOWN: SITTING EXERCISES

Deep Breathing

Place hands on stomach and take a deep breath. Feel hands move out. Exhale fully and feel hands move in.

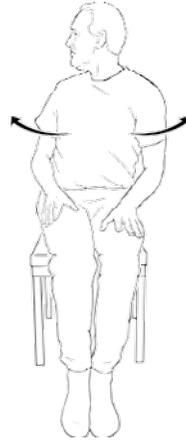
Repeat ___ times.



Trunk Rotations

With feet flat, turn upper body as far as possible toward one side. Hold for three seconds. Return to starting position.

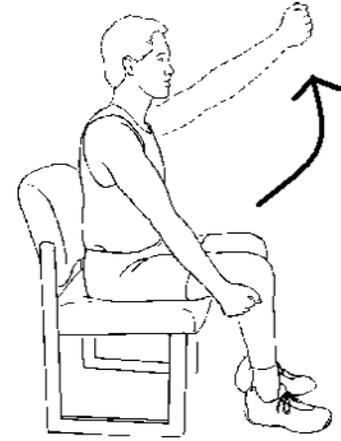
Repeat ___ times each side.



Shoulder Flexion

Lift one arm straight up and over your head as far as possible while you inhale. Return arm to your side as you exhale.

Repeat ___ times each arm.



Tips to Stay Active

- Include a variety of activities that you enjoy.
- Any amount of activity is better than none at all.
- Stick with it until it becomes a habit.
- Wear comfortable clothing and shoes.
- Invite a friend to join you for a walk.
- Schedule exercise into your day.
- Set reasonable goals for yourself.
- Keep an exercise journal to track your progress.

Cardiac rehabilitation programs provide more specific exercise and lifestyle guidelines. There is no cost for participation and options include on-site or home-based programs. To get started, call 613-696-7068.

What to Watch For

Examine the insertion site in your groin every day. It is normal for it to feel like a small dime or pea-sized lump that may be slightly red and tender and, occasionally, to have some clear drainage.

Call your doctor or the nursing coordinator immediately if you notice:

- A lump that is getting bigger
- Any area of redness or warmth
- Any kind of yellow or pink drainage or poorly healing incision
- Unusual pain in the groin region and/or radiating down the leg or felt in your lower back

Pain or Discomfort: Expect the discomfort in your groin to gradually decrease as you continue to heal. If you begin to have more pain or any chest pain or breathlessness, contact your doctor or the nursing coordinator.

Other Symptoms: Call your doctor or the nursing coordinator if you develop a fever or flu-like symptoms, such as feeling unusually tired.

CALL 9-1-1 OR GO TO THE NEAREST EMERGENCY DEPARTMENT IF YOU EXPERIENCE:

- Increasing shortness of breath
- Irregular heart rate
- Numbness or weakness in your arms or legs
- Blurred vision

Home Monitoring

If you need to be closely monitored after discharge, you may be referred to the Telehome Monitoring Program. If you are referred, the nurse from Telehome Monitoring will see you in the hospital and show you how to use the special equipment before you go home.

Daily Weight Checks

While you are recovering in the hospital, your weight will be checked daily. A sudden weight gain might be an early sign that you are retaining extra fluid. When you go home, you need to continue to weigh yourself daily for the first month to make sure you are not building up extra fluid.

Before you are discharged, you will be given a daily weight tracking form for recording your weight. The nurse will review with you how to weigh yourself each day and when you need to call us.

Medications

When you are discharged from the Heart Institute, expect to have new prescriptions written for you. Some of the medications will be the same as the ones you were taking before, and some will be different.

Before you go home, it is important that you and your family understand your prescriptions and how to take each medication. If you have any questions, make sure you ask your nurse before you leave the hospital. Please contact your doctor or the nursing coordinator if you have questions when you return home.

You may need to take anti-platelet medication. These medications make your blood less sticky and help prevent clots from forming on your new valve device. If you have a history of an irregular heartbeat (atrial fibrillation), your medication may be changed to a different type of blood thinner that is more effective for patients with a valve device.

NAME OF ANTI-PLATELET MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
ASA (Aspirin®, ECASA) Clopidogrel (Plavix®) Prasugrel (Effient®) Ticagrelor (Brilinta®) Warfarin (Coumadin®)	<ul style="list-style-type: none">• Helps prevent blood clots on transcatheter valves (clopidogrel, prasugrel).• Decreases the risk of future heart attacks.	<ul style="list-style-type: none">• Increased risk of bleeding & bruising.• Upset stomach (nausea, diarrhea, heartburn).

For those Living with Diabetes, Glycemic Control is important

It is normal to see higher blood glucose readings because you aren't as active. Please don't ignore them. Higher blood glucose readings, greater than 4 – 7 mmol/l before meals can increase your risk of infection and slow down the healing process.

Please call your diabetes team for help. If you don't have one, you should receive a call from the community diabetes program and the Diabetes Clinic at the Heart Institute for an appointment. Feel free to discuss your concerns with the Advance Practice Nurse for Diabetes at 613-696-7000 Ext 17111.

LIVING WITH YOUR MITRACLIP DEVICE

Maintaining a Heart Healthy, Low-Salt Diet

Too much salt in your diet can cause fluid to build up, forcing your heart to work harder.

Following a low-salt diet will help your heart work more efficiently and place less stress on your heart valve. It may even keep you out of the hospital.

The following tips can help you lower your salt intake and keep your diet heart healthy:

- Read food labels: Choose foods in which the sodium (salt) content is 8 % or less per serving.
- Reduce salt during cooking and avoid adding salt at the table:
 - Replace salt with fresh or dried herbs, lemon juice, flavoured vinegars and unsalted spices (try Mrs. Dash® or McCormick's® salt-free spice blends)
 - Rinse canned vegetables before using them in cooking
- Prepare meals using fresh ingredients:
 - Use fresh or frozen foods whenever possible
 - Aim for a variety of foods from each food group every day
 - Use canola or olive oils instead of hydrogenated or trans fats
 - Get plenty of fibre, with whole grains and unsalted nuts and seeds

For more information about how to manage salt and fluid, ask for a copy of the *Heart Failure Guide*.

Prediabetes and Diabetes in Heart Disease

Like Type 2 Diabetes, prediabetes can occur without you knowing. Abnormal glucose levels in your blood significantly accelerate the development and natural history of cardiovascular disease compared to individuals without diabetes. Being aware of your risk factors and being tested are important. This is especially true if you have prediabetes as well as some other risk factors such as

- High blood pressure
- High levels of bad cholesterol (LDL)
- High levels of triglycerides
- Low levels of good cholesterol (HDL)
- Abdominal obesity

People living with diabetes are at a 4 times greater risk of developing heart disease. Poorly controlled glucose in your blood

- Can lengthen your hospital stay
- Increase your healing time
- Increase your risk of infection

If you have diabetes, continue your medication and insulin as prescribed. Initiate more frequent self monitoring of your blood glucose while you are waiting for surgery. This is a stressful time with less physical activity resulting in abnormal readings. If you don't have a meter, speak with your pharmacist to get started.

Blood glucose targets fasting and before meals should be between 4 – 7 mmol/l. If you are checking within 2 hours of a meal 5 – 10 mmol/l. Checking at different meals and different times of day, will provide you and the team a snapshot on potential areas that need to be addressed. If your results are not in target, please contact your family practitioner or your diabetes team. Medication may need to be adjusted or added while you are waiting for surgery. If you are unable to reach your usual team or don't have one, please contact the Advance Practice Nurse for Diabetes at 613-696-7000 Ext 17111. This is an ideal time while you are waiting for surgery to improve your glycemic control.

FOR THOSE LIVING WITH DIABETES, GLYCEMIC CONTROL IS IMPORTANT

It is normal to see higher blood glucose readings because you aren't as active. Please don't ignore them. Higher blood glucose readings, greater than 4 – 7 mmol/l before meals can increase your risk of infection and slow down the healing process.

Please call your diabetes team for help. If you don't have one, you should receive a call from the community diabetes program and the Diabetes Clinic at the Heart Institute for an appointment. Feel free to discuss your concerns with the Advance Practice Nurse for Diabetes at 613-696-7000 Ext 17111.

Preventing Other Infections

Your skin is a barrier against infection. Protect your skin by avoiding any new body piercing or tattooing. Pay careful attention to any breaks or cuts in your skin.

Contact your doctor immediately if you develop:

- A fever
- An abscess or boil
- A cut that has become swollen or tender or drains pus
- Any other suspected infections, including urinary tract infections

Notify your doctor if you experience increased shortness of breath or swelling of your ankles or feet.

Follow-Up Appointments

You will be given an appointment to see either your cardiologist or your cardiac surgeon about one month after your MitraClip procedure. You will have another echocardiogram on the day of that appointment.

We will arrange another echocardiogram at six months and one year post-procedure. You may be seen in the clinic at this time as well. Every yearly anniversary of your procedure date, we will conduct follow-up evaluations of your MitraClip device with further echocardiogram screenings. These will be done at the University of Ottawa Heart Institute.

Keep Your Health Care Team Informed

Inform any health care professional involved in your care that you have had a MitraClip implanted (transcatheter mitral valve repair). This includes your family doctor, any other doctors that you see, your pharmacist, your physiotherapist, your home nurse or anyone else who helps you stay healthy.

IF YOU HAVE ANY QUESTIONS, PLEASE FEEL FREE TO CALL:

Cindy Cross
MitraClip Clinical Nursing Coordinator
Phone: 613-696-7212

IF YOU NEED HELP OUTSIDE OF NORMAL BUSINESS HOURS, CALL:

Nursing Coordinator
Phone: 613-696-7000, press 0 and ask for the nursing coordinator

APPENDIX 1: WHERE TO FIND MORE INFORMATION

The University of Ottawa Heart Institute website can provide you with information concerning all aspects of heart disease. Please visit the website at www.ottawaheart.ca.

Diagnostic Tests

TEST	BRIEF DESCRIPTION
Echocardiogram	<p>This test uses ultrasound (high-frequency sound waves) to look at your heart and how the different parts of your heart are working—for example, the different chambers or your heart valves.</p> <p>An echocardiogram is performed by placing a hand-held ultrasound wand on your chest. By positioning the wand, the sonographer can evaluate the functioning of your heart.</p>
Transesophageal Echocardiogram (TEE) www.ottawaheart.ca/test-procedure/transesophageal-echocardiogram	<p>This is a specialized type of echocardiogram test. It uses a special thin, flexible tube that is inserted down your throat through to your stomach.</p> <p>The reason for having a TEE is that your doctor is able to get a very good look at your heart without interference from your ribs and lungs.</p>
Cardiac Catheterization www.ottawaheart.ca/test-procedure/angiogram-cardiac-catheterization	<p>Cardiac catheterization is a procedure used to detect and treat some types of heart problems. A thin flexible tube called a catheter is inserted into an artery or vein in the groin area (or the arm) and guided to the heart. Cardiac catheterization is used to:</p> <ul style="list-style-type: none"> • Evaluate or confirm the presence of coronary artery disease, valve disease or disease of the aorta • Determine the need for further treatment (such as an interventional procedure or coronary artery bypass graft (CABG) surgery)
ECG (Electrocardiogram) www.ottawaheart.ca/test-procedure/electrocardiogram	<p>An electrocardiogram (ECG) is a test that measures and records the electrical activity of your heart.</p>

TEST	BRIEF DESCRIPTION
Chest X-ray www.ottawaheart.ca/test-procedure/chest-x-ray	A chest X-ray lets doctors take pictures of the structures inside your chest, including your heart, lungs, blood vessels, and bones. X-ray pictures of the chest can show how large your heart is and whether there is too much fluid in your lungs (pulmonary edema) caused by heart failure.
CT Scan www.ottawaheart.ca/test-procedure/cardiac-computed-tomography-ct-scan	A computed tomography (CT) scan is a type of X-ray test that lets doctors take three-dimensional (3-D) pictures of your heart and blood vessels. The CT scanner combines the specialized X-rays with a high-powered computer that reconstructs the information into 3-D views.

Heart Healthy and Low Salt Diets

For more information about a low salt diet, check our website at:
www.ottawaheart.ca/heart-failure-patient-guide

HEART INSTITUTE PATIENT ALUMNI

WE CAN HELP. WE'VE BEEN THERE.

The Patient Alumni are a diverse community of current and former University of Ottawa Heart Institute patients and their families, friends and caregivers. We gratefully support the Institute by sharing information on advancements in the prevention and treatment of heart disease and by designating funds for projects and services that improve patient comfort and care.

By joining the Alumni, you will become part of a very unique community!

The Heart Institute is the only hospital in Canada that has formed an alumni group to stay in contact with discharged patients and their families. For over 40 years, the Heart Institute has delivered world-class care to thousands of patients. As Alumni members, we wish to stay in touch, stay informed, and contribute to the Institute's quality of care and future success.

WHY JOIN THE ALUMNI?

Alumni membership is free of charge, thanks to the partnership and financial support of the Heart Institute and its fundraising Foundation.

As an Alumni member, you'll get up-to-date information through our:

- e-letters
- Websites
- Lectures, courses and special events

By joining, you will also be able to share information and experiences with other Alumni members through our unique private social networking site, at <http://community.ottawaheart.ca>

For more information and access to free membership, visit our website, ottawaheartalumni.ca

Or contact us at:

Email: alumni@ottawaheart.ca

Telephone: 613-696-7241



UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA



PATIENT ALUMNI
ASSOCIATION DES
ANCIENS PATIENTS