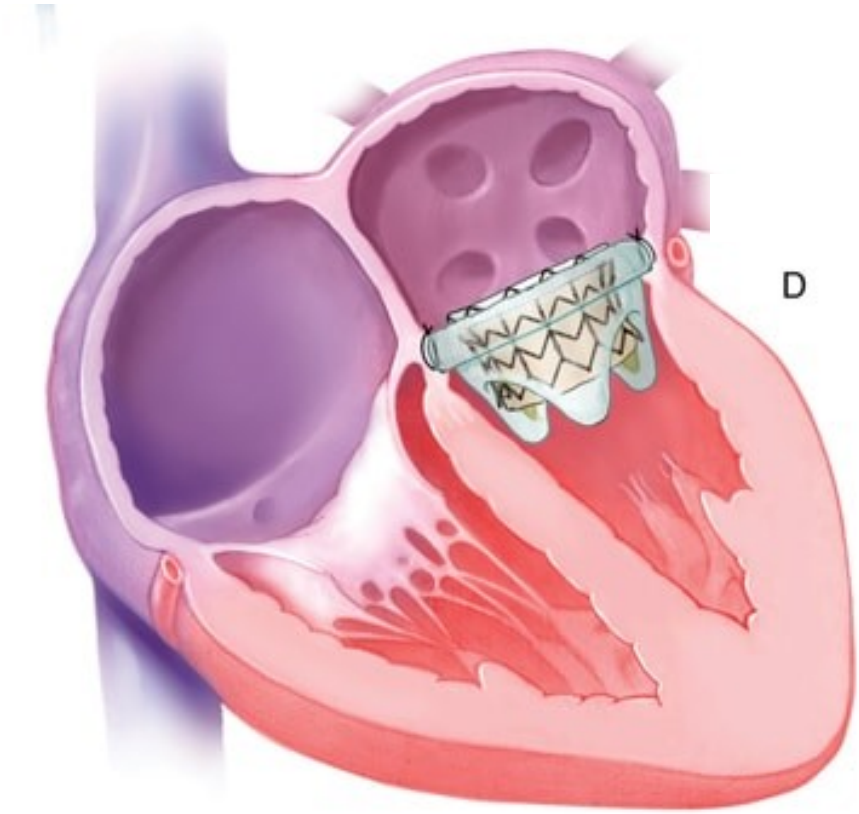


Transcatheter Mitral Valve in Valve Procedure

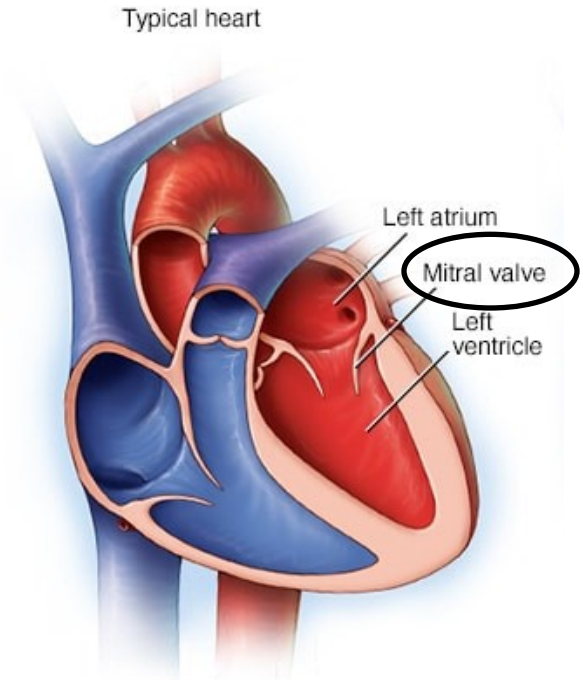
Information and Procedure Guide

Saskatchewan Health Authority

CS-PIER-0159
OCTOBER 2024

The heart and heart valves

The heart has 4 chambers and 4 valves. Heart chambers fill up with blood then squeeze that blood out through the heart valves. Heart valves act as one-way gates, allowing blood to move forward in one direction between the heart chambers preventing blood from leaking backwards. The heart's right side takes in blood that the body has used and sends it to the lungs to pick up oxygen. The left side gets this oxygen-rich blood from the lungs and pumps it to the rest of the body and the brain.



The mitral valve

The mitral valve is located between the left atrium and the left ventricle.

Bioprosthetic mitral valve dysfunction (not working properly)

Bioprosthetic (tissue) mitral valve can become dysfunctional. They may develop narrowing (stenosis) or becoming leaky (called regurgitation) . A dysfunctional bioprosthetic mitral valve can be treated with either a repeat open heart surgery or by a less invasive catheter based procedure, called a ***Transcatheter mitral valve in valve procedure.*** This procedure involves placing a new tissue valve inside the surgical valve**.**

Symptoms of mitral valve disease

- Fatigue
- Irregular heart sound (heart murmur)
- Irregular heartbeat/palpitations/racing heart
- Shortness of breath
- Heart failure

Structural heart valve clinic - Meet your heart team

Physician - An interventional cardiologist and/or cardiac surgeon uses best practice guidelines to determine which of the three options is best for you (see next page).

Registered Nurse Coordinator - assesses your day-to-day activities, physical function, and cognitive (brain) health to help determine if you are suitable for this procedure.

The healthcare team reviews your medical and surgical history, current medications, allergies and symptoms related to your heart conditions and your preference for treatment options.

The TMVIV procedure and its associated risks are discussed along with any required tests and appointments.

What to bring

- Walking devices (cane or walker) and/or hearing aids
- This booklet and your questions
- A family member or friend
- Medication and allergy list
- A list of your past medical and surgical history, if known
- Email consent form - fill in your email address if you use one

Workup - Are you a candidate?

A series of tests and appointments are needed to decide if you are good candidate for this procedure.

Echocardiogram - an ultrasound of your heart **-** This test looks at the heart strength, chambers and valves.

Cardiac angiogram/catheterization (uses contrast) **-** This test checks the heart arteries for any blockages. If there are blockages you may need a coronary stent.

If you have an allergy to contrast or dye please notify us on receipt of this booklet.

CT scan / CAT scan (uses contrast) **-** A specialized scan for the procedure. It helps us plan and informs us if the procedure is possible based on your anatomy.

Decision making

After all the required tests are done, the heart team meets to decide the best treatment option for you. If you are approved for the TMVIV procedure, you are notified by mail and put on a waiting list.

Transcatheter mitral valve in valve (TMVIV)

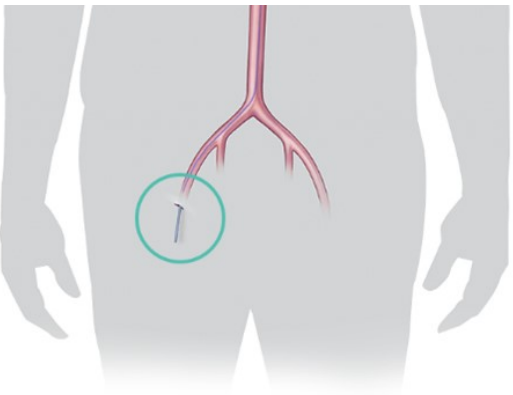
Procedure Preparation and Process

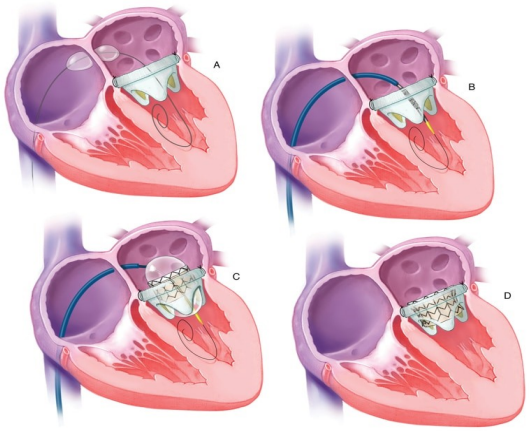
Preparation instructions are given to you 1 to 2 weeks before your procedure.

- **Blood Thinners**: Stop taking them 2 to 5 days before, as advised by the valve coordinator.
- **Other Medications**: Continue all other prescribed medications including ASA (Aspirin®), clopidogrel (Plavix®), and Ticagrelor (Brilinta®).
- **Food Intake**: Nothing to eat after midnight the night before your procedure.
- **Liquids:** Keep hydrated with water and clear juices only. Avoid dairy products**. Stop drinking liquid 2 hours before you arrive to hospital.**

Procedure Location: Performed in a Cardiac Catheterization lab, under general anesthesia. The doctor uses an ultrasound and x-rays to see the heart and surrounding structures.

During the Procedure: A small incision is made near the groin so that a hollow tube called a catheter can be inserted into the femoral vein. A new tissue valve is compressed onto the catheter and guided up and into the heart. A temporary pacemaker regulates the heart rate during the procedure. The new tissue valve is opened inside the old valve, pushing the old valve aside. The new valve works right way. The incision is closed using sutures under the skin. You are woken from general anesthesia and begin your recovery.





Mitral Valve Card

You receive a temporary valve card at discharge. Keep it on you at all times especially when you travel. A permanent card is mailed within 6 month. Share this with healthcare providers, including your dentist.

Valve Endocarditis

To prevent endocarditis (a heart valve infection) take antibiotics before any dental work or cleaning or any invasive or surgical procedures for the rest of your life. Make sure to tell your dentist about your procedure. Avoid dental check-ups and cleanings for 6 months after the procedure and use antibiotics for any dental work that could cause gum bleeding. Your family doctor or dentist will prescribe the antibiotics as necessary.

Recovery instructions

Recovery and Going Home

After the procedure, you wake up from the anesthetic and are on bed rest for about 4 hours. Afterwards, you are helped to the bathroom and by evening, walking is encouraged every few hours. Your stay includes an echocardiogram, incision checks and frequent monitoring for any complications. These results are reviewed by the doctor. **You go home the day after your procedure, if there are no concerns.**

Pain and Discomfort

It is common to experience some tenderness at the groin but severe pain is unusual. Bruising may occur but should fade in a few weeks. For mild discomfort, take over-the-counter acetaminophen like Tylenol®. Seek medical attention for sudden or worsening moderate to severe pain.

Incision Site Care

- Remove your groin dressing 24 hours after your procedure.
- Shower only (avoid tub baths/soaking) for the next seven days with mild, unscented soap.
- Wash sites gently (do not scrub) and pat to dry with a clean dry towel.
- Reapply a bandage if there is any drainage. Change this bandage daily if there is drainage.

Recovery instructions

Medications

Antiplatelet Medication: Prevents blood clots on your new heart valve. Commonly prescribed: LIFE LONG acetylsalicylic acid (Aspirin®/ASA) and/or clopidogrel (Plavix®), unless already on another blood thinner.

Anticoagulants (Blood Thinners): Slows blood clotting. If you were on anticoagulants before your valve procedure, your cardiologist will resume them afterward. New anticoagulant prescriptions are given, if needed.

Some individuals may be started on an anticoagulant short term after the procedure. Your team will review if this is needed.

Visit your family doctor for:

- A lump that continues to grow (a small, marble-sized lump with some bruising or tenderness is normal for 2 to 4 weeks).
- Increasing or persistent redness, tenderness, or warmth at the procedure site.
- Yellow pus or foul-smelling discharge from the procedure site.
- Moderate to severe pain at the incision site.
- Chills or fever (temperature over 38.5°C).

Visit an Emergency Room or call 9-1-1 for:

- Stroke symptoms: weakness/drooping on one side of the body/face, slurred speech or difficulty speaking, sudden vision changes.
- Frequent/new dizziness, blackouts, or palpitations.
- New or worsening shortness of breath or chest pain.
- Severe pain, loss of sensation/color, or numbness near the procedure site.
- Increased bleeding or swelling at the procedure site.

If you notice bleeding at the procedure site:

- Press down firmly with two fingers about 2 centimeters above the bleeding spot. Apply continuous pressure for 15 to 20 minutes without lifting or checking during this time.
- Get someone to drive you to the nearest Emergency Department or call 911. Do not drive yourself.

Recovery instructions

Activity

- DO NOT push, pull, or lift anything over 5 kilograms (10 pounds) for 1 to 2 weeks after your procedure to allow healing.
- You may feel tired for 24 to 48 hours. Take breaks, eat well, and rest as needed.
- Use stairs slowly for next 3 to 5 days.
- Gradually increase daily walking distance.

Driving and Travel

- **Driving:** No driving for 1 month. There is a 3-month commercial driving restriction.
- **Air Travel:** Generally safe to fly 1 to 2 days after the procedure.
- **International Travel**: Consult your doctor. Travel insurance may not cover you immediately after your procedure. Check with your insurer.
- **Concerns About Driving:** Discuss with your family doctor if you or your family have concerns.

Return to Work

- Office work (mostly sitting): Return to work 48 to 72 hours after the procedure or when you feel ready.
- Work involving heavy lifting (greater than 5 kg or 10 lbs.): Return to work after 14 days.
- Work involving operating a licensed vehicle: Return to work after driving restricted lifted
- **Concerns about returning to work**: Talk to your cardiologist or family doctor.

Follow-up Appointments

- **Family Doctor:** Schedule an appointment with your family doctor 1 to 2 weeks after your procedure.
- **Echocardiogram:** is scheduled for 4 to 6 weeks post-procedure. Appointment details are mailed to you.
- **Structural Heart Valve Clinic:** An appointment is booked for you in 6 to 8 weeks. Appointment details are mailed to you.

Saskatchewan TAVI/ Structural Heart Valve programs

Regina

TAVI Coordinator: 306-766-3766
Fax: 306-766-4183

Saskatoon

Program office: 306-655-1901
Program Coordinator: 306-655-6883
Fax: 306-655-0468

CS-PIER-0159

Healthy People, Healthy Saskatchewan

The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.

PIER—Patient Information and Education Resource

OCTOBER 2024

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