

PFO or ASD Closure: Patent Foramen Ovale (PFO) or Atrial Septal Defect (ASD)

Halifax Infirmary, QE II

PFO or ASD Closure

What are PFO and ASD closures?

- A PFO closure is a device put in the heart to help prevent a stroke.
- An ASD closure is a device put in the heart to help prevent:
 - › The right side of your heart from getting bigger
 - › An irregular heartbeat (problem with the rate or rhythm of your heart)
 - › Pulmonary hypertension (high blood pressure in the lungs)
 - › Heart failure
 - › A stroke
- PFO and ASD closures are done in the cardiac catheterization laboratory (also called the cath lab).
- The cardiologist (heart doctor) will make 2 small punctures (holes) in your groin:
 - › They will put a special catheter (thin, hollow tube) through 1 hole into a vein.
 - › They will put a special ultrasound probe (device) in the other hole.
- Then they will put a PFO or an ASD closure device through the catheter and carefully move it to the right spot in your heart.

- When the device is in the right spot, they will push it out of the catheter. When the device is in your heart, it will open up and cover the hole in your heart.
- Over time, your heart tissue will grow over the device. This will keep the device in place and help it act like a part of your heart.

What should I bring to the hospital?

- › Provincial health (MSI) card
- › Private health insurance card (if you have one)
- › Slippers
- › Toothbrush and toothpaste
- › Any food you may need (if you have special dietary needs)
- › Your personal directive (if you have one)
- › **All of your medications** (including prescription and over-the-counter products, inhalers, creams, eye drops, patches, herbal products, vitamins, and supplements) in their original containers
- **Do not** bring any valuables (like cash, debit or credit cards, cheque books, jewelry) with you. **The hospital is not responsible for the loss of any items.**

Where do I go for my surgery?

- You must register before your procedure using one of the kiosks on the 1st floor at the Summer Street entrance.
- After registering, go to the 6th floor waiting room next to Unit 6.1 IMCU. You may wait there until staff are ready for you.

Before your procedure

- Do not have anything to eat or drink after midnight the night before your procedure.
- Do not take your medications the morning of your surgery. Your health care team will review your medications with you on the Cardiac Short Stay Unit (SSU) and let you know which ones you can take.
- In the Cardiac SSU, we will ask you to change into a hospital gown and a housecoat.
- A nurse will start an intravenous (I.V.) in a vein in your arm. This will be used to give you fluids and medications.
- You will be taken down the hall to a procedure room in the cath lab. We will ask you to lie on a special table.
- We will put electrodes (sticky pads) on your chest so we can monitor your heart.

During your procedure

- You will see a camera above you and monitors (screens) beside you.
- A nurse will clean the skin in your groin area.
- We will place sterile (germ-free) cloths or drapes over your legs, stomach (belly), and chest.
- The room will feel cold. If you are cold, ask the nurse for an extra blanket.
- The cardiologist will use a local anesthetic (freezing) to numb your groin area so you will not feel any pain.
- They may also give you general anesthetic (medication to put you to sleep during your procedure) or sedation (medication to help you relax) through your I.V.
- Once the catheter is in place, we will turn down the lights. This is to help make the monitors easier to see. A dye will be injected into your I.V. to help the cardiologist take pictures of your heart.
- The cardiologist will use the ultrasound probe to measure your heart. Then they will move the closure device into the right place.
- The procedure will take about 60 minutes (1 hour).

After your procedure

- The cardiologist will remove the catheter and the ultrasound probe from your groin.
- There will be some bleeding from the insertion sites (where the catheter and ultrasound probe were put in). To stop the bleeding, we will put pressure on the area or use stitches to close the holes.
- You will be taken back to the Cardiac SSU.
- To prevent bleeding, you will need to lie flat with your leg straight for at least 2 hours.
Do not try to move on your own. Ring your call bell for a nurse to help you move.
- The nurse will check your blood pressure and groin bandage often.

Call your nurse right away if you:

- › Think you are bleeding (your groin feels wet, sticky, or warm)
- › Have swelling in your groin
- › Feel numbness or tingling in your toes

- Your groin may feel sore or tender. Ask your nurse for pain medication, if needed.

- Drink more fluids than usual to help flush the dye out of your body and prevent dehydration (not having enough fluids). Your cardiologist may want you to have I.V. fluids for a few hours to help with this.
- Your nurse will help you get out of bed after your bedrest. **Do not get up on your own for the first time.**
- You will then be taken for an X-ray and an electrocardiogram (ECG/EKG). This test checks the electrical activity of your heart.
- Your health care team will tell you if you need to stay in the hospital overnight.
- Your cardiologist will visit you.
- Before you leave the hospital, you will have an echocardiogram (a test that uses sound waves to make pictures of your heart). This is to check the position of the closure device.
- If you have a stitch in your groin, we will take it out before you go home.

- You must have a responsible adult take you home (by car, taxi, or bus). **Do not** leave the hospital on your own.
- You must have a responsible adult stay with you for the first 24 hours (1 day) after your procedure.

Care after leaving the hospital

- **For 30 days (1 month) after your procedure:**
 - › **Do not** do any activity that makes you strain or hold your breath.
 - › **Do not** lift anything heavier than **10 pounds** (like groceries, laundry). This includes children.
- Your cardiologist will give you instructions about activity and lifting before you leave the hospital.

For 7 days (1 week) after your procedure:

- **Do not have a bath, swim, or use a hot tub.** Make sure the puncture sites (where the catheter and probe went in) are well healed first.

24 hours (1 day) after you leave the hospital:

- You can take the bandage off.

Until your groin is healed, check it each day for signs of infection, like:

- › More redness at the puncture sites
- › More drainage or fluid from the puncture sites
- › Fever (temperature above 38 °C or 100.4 °F)
- › Chills
- **If you have any sign of infection, call your primary health care provider (family doctor or nurse practitioner). If you cannot reach them, go to the nearest Emergency Department right away.**

- You can shower. **Do not** let the water spray directly on your groin area. It is best to stand with your back to the water.
 - › Wash your groin **gently** with soap and water. Your nurse will give you a small bandage to put on after your first shower.

Medications

For at least 6 months after your procedure:



- You will need to take antibiotic medication (medication to prevent infection) before any procedure that may cause bleeding (like dental work, teeth cleaning, major tests, or surgery). This is to lower the risk of getting an infection in your heart.
- Your primary health care provider will tell you if you need to take antibiotics for longer than 6 months.

For 3 to 6 months after your procedure:

- You will need to take medication (like Aspirin® or clopidogrel) every day. This is to prevent blood clots from forming. We will give you a prescription before you leave the hospital.
- If this medication causes side effects, talk with your primary health care provider.
Do not stop taking this medication unless your cardiologist tells you to.

Your closure device

- Before you leave the hospital, we will give you an identification (I.D.) card that says you have a closure device in your heart. **Always carry this card with you.** Show it to all of your health care providers.
- Your closure device will **not** set off metal detector alarms at airports.
- You can safely have an MRI test with your closure device.
- Your device **will** be seen on X-rays.

Follow-up

- **It is very important to go to all of your follow-up appointments.**

Go to the nearest Emergency Department or call 911 right away if you:

- › Have chest pain
- › Have shortness of breath or trouble breathing
- › Feel light-headed or like you are going to faint
- › Have an irregular heartbeat

Notes:

This pamphlet is for educational purposes only. It is not intended to replace the advice or professional judgment of a health care provider. The information may not apply to all situations. If you have any questions, please ask your health care provider.

Find all patient education resources here:
www.nshealth.ca/patient-education-resources

Connect with a registered nurse in Nova Scotia any time:
Call 811 or visit: <https://811.novascotia.ca>

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