

Electrophysiology Studies (EPS)

Halifax Infirmary

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EPS

- Electrophysiology studies (EPS) are procedures that check your heart's electrical system. This electrical system is what organizes the heart muscle to pump blood efficiently to your body.
- Sometimes this electrical system does not work the way it should. When this happens, your heart can beat too fast or too slow. Sometimes, this could be an abnormal heart rhythm. It can cause some people to feel dizzy, short of breath, or faint.
- Electrophysiology studies can help your health care provider:
 - › gather information about a possible abnormal heart rhythm.
 - › find out what may be causing your abnormal heart rhythm and how to control it.

Getting ready for your procedure

- Your health care provider may instruct you to stop taking certain medications before your procedure date. **It is very important to follow these instructions.**
- If your health care provider **does not** give you instructions about your medications, you can keep taking them as usual.

Call your primary health care provider if you have:

- › Swelling in your leg(s)
- › Bleeding, pus, or redness at the insertion site(s)
- › A firm lump at the insertion site(s) that does not soften after applying pressure for 5 to 10 minutes
- › A fever (temperature above 38 °C or 100.4 °F) or chills

Call 911 or go to the nearest Emergency Department right away if you have:

- › Very bad pain at the insertion site(s)
- › Colour changes in your leg(s) (blue, gray, purple, or white)
- › A large bruise or swelling that gets bigger (even after applying pressure)
- › Bleeding at the insertion site(s) **that you cannot stop**
- › Chest pain or discomfort
- › Trouble breathing

The day before your procedure

- **Do not** eat or drink anything after midnight the day before your procedure.
- **Unless a member of your health care team gave you different instructions**, you can take your medications with small sips of water.

The day of your procedure

- When you arrive at the QE II Halifax Infirmary Building, enter through the Summer Street entrance (1796 Summer Street).
- Register at one of the kiosks in the entrance area.
- Then take the public elevators to the 6th floor. When you get off the elevator, there will be a waiting room on your left (Room 6012).
- A Cardiac Day Unit staff member will come and get you and take you to your room.
- A health care provider will talk with you and explain how the procedure is done.
- You will then sign a consent form. The health care provider will answer any questions you may have.
- You may have a test called an electrocardiogram (ECG or EKG). An ECG or EKG is a tracing of your heart's electrical activity.

If you have bleeding or a lump that is getting bigger after you leave the hospital:

- Lay down. Apply firm pressure at the insertion site until the bleeding stops.
 - › **If the bleeding does not stop in 5 to 10 minutes, call 911, or go to the nearest Emergency Department right away. Do not drive yourself.**
- If there is a lump, apply pressure until it gets softer and smaller.
 - › **If the lump does not get softer or it gets bigger after applying pressure for 5 to 10 minutes, call 911, or go to the nearest Emergency Department right away. Do not drive yourself.**
- You may need to have a family member or a support person help you apply pressure.

If you cannot stop the bleeding, or there is a lump that keeps getting bigger, call 911, or go to the nearest Emergency Department right away. Do not drive yourself to the hospital.

To help prevent bleeding from the insertion site(s):

- For the next 2 days, put **gentle pressure** on the site(s) when you:
 - › Cough
 - › Urinate or have a bowel movement
 - › Laugh
 - › Sneeze
- Bleeding from the insertion site(s) may be:
 - › blood flowing from the site(s).
 - › blood staying under your skin forming a firm lump.

If you have bleeding or a lump that is getting bigger while you are in the hospital:

- Apply firm pressure at the insertion site.
- If you are not in bed, return to your bed. Lie on your back.
- Ring your call bell for a nurse.

- You will be asked to change into a johnny shirt and a hospital gown.
- We will insert an intravenous (I.V.) line into a vein in your arm or hand.

Blood work

- You may have had blood work done in the month before your procedure. If not, you will have blood work done.

Shaving

- A member of your health care team will shave a small area of both of your groins.
- They may also shave some hair from your chest or back, if needed.

Before leaving your room

- When it is time for your procedure:
 - › You will be asked to empty your bladder (pee).
 - › You will be asked to remove your underwear and slippers.
- If needed, you may wear the following during your procedure:
 - › Dentures
 - › Hearing aids
 - › Glasses
- **Do not** wear contact lenses on the day of your procedure.

What will happen during the procedure?

- You will be taken to the Electrophysiology Lab and asked to lie on an X-ray table.
- Your health care team will be wearing gloves, masks, and/or gowns.
 - › They will place sticky monitoring patches on your chest and back.
 - › They will wash both of your groins with a cleaning solution.
 - › Once the solution is dry, they will cover you from the neck down.
- The health care provider will inject local anesthetic (freezing) in your groin areas. You may feel stinging and burning when the freezing is injected.
- The health care provider will put sheaths (short, hollow tubes) into the veins of one or both of your groins. You may feel pressure when the sheaths are put in, but you should not feel any pain.
- Your team will move diagnostic catheters through the sheaths to your heart. Diagnostic catheters are used to:
 - › Send electrical signals to parts of your heart to make it beat faster or slower
 - › Collect information from your heart's electrical signals

When can I exercise after my procedure?

- **Do not** bend, squat, or lift anything heavier than 5 pounds for at least 72 hours (3 days).
- **Do not** do any strenuous (hard) sports (like jogging or tennis) for 7 days (1 week).
- **Do not** walk quickly for 2 to 3 days.
- Climb stairs slowly for 1 to 2 days.

Drinking fluids

- Unless you were given different instructions, drink lots of fluids for 24 hours after your procedure. This will help prevent dehydration (when your body does not have enough fluids).
- Try to drink water or juice.
- Avoid caffeine. It may make you urinate more often.

Will my medications change?

Your medications may change after your procedure. Your cardiologist will talk with you about this before you leave the hospital.

When can I take a shower or a bath?

- You can shower 24 hours (1 day) after your procedure.
 - › **Do not** direct the stream of water at your insertion site(s).
 - › **Do not** rub the insertion site(s) for the first few days after your procedure.
- **Do not** take a bath or swim for 2 days after your procedure.

When can I remove the bandage?

- You can remove the bandage 24 hours after the procedure.

When can I drive?

- Your heart condition and test results may affect when you can drive.
- You need to wait at least 2 days (or longer, in some cases) before driving.
- Ask your health care provider when you can drive again.

When can I go back to work?

- This will depend on what kind of work you do. Ask your health care provider when you can go back to work.

- Your team is able to record and monitor your heart rhythm.
- Your health care team may try to bring on an abnormal heart rhythm by sending electrical signals through the catheters and/or giving you medication through your I.V.
- If you feel anxious, tell a member of your team. You may be able to have mild sedation or pain medications during the procedure.

Tell your health care team if you have any of these symptoms during your procedure:

- › Heart palpitations (feeling like your heart is racing, fluttering, pounding, or missing a beat)
- › Dizziness
- › Pain
- › Nausea (feeling sick to your stomach)
- › Feeling like you are going to faint

- The procedure usually takes about 2 hours. Sometimes it may take longer.

After the procedure

- Your health care team will remove any catheters or sheaths you may have.
- Your team will apply pressure to the sheath insertion site(s) to stop any bleeding. In some cases, a stitch may be placed at the insertion site(s). A small bandage will be placed over the site(s).
- You will be taken by stretcher to your room on the Cardiac Day Unit (CDU).
- You will be asked to lie flat on your back in bed for 3 to 4 hours.
 - › During this time, the nurse may raise the head of your bed 30 degrees. Keep your head on the pillow.
 - › During this time, **do not** bend the leg(s) that you had the sheath(s) in. Keep your leg(s) straight.
- Make sure to put firm pressure on your insertion site(s) if you laugh, cough, sneeze, urinate (pee) or have a bowel movement (poop).
- A nurse will check on you often.
 - › They will check the insertion site(s) for bleeding or swelling.
 - › They will monitor your pulse and blood pressure.

- You may be able to have something to eat and drink about **an hour** after you get back to your room. Ask your nurse if this is OK. You will be on bedrest at this time, so if you need help, ask your nurse.
- You may have an ECG or EKG after you return to your room.

Going home

When will I be discharged from the hospital?

- Your health care provider will check the results of your procedure and tell you when you can go home.
- You may be asked to come in for a follow-up appointment within a few months of the procedure. If you live far away from the QE II, you may be able to see a local health care provider or cardiologist instead.
- Depending on the results of the procedure, sometimes people may need to be admitted to the hospital for more treatment.