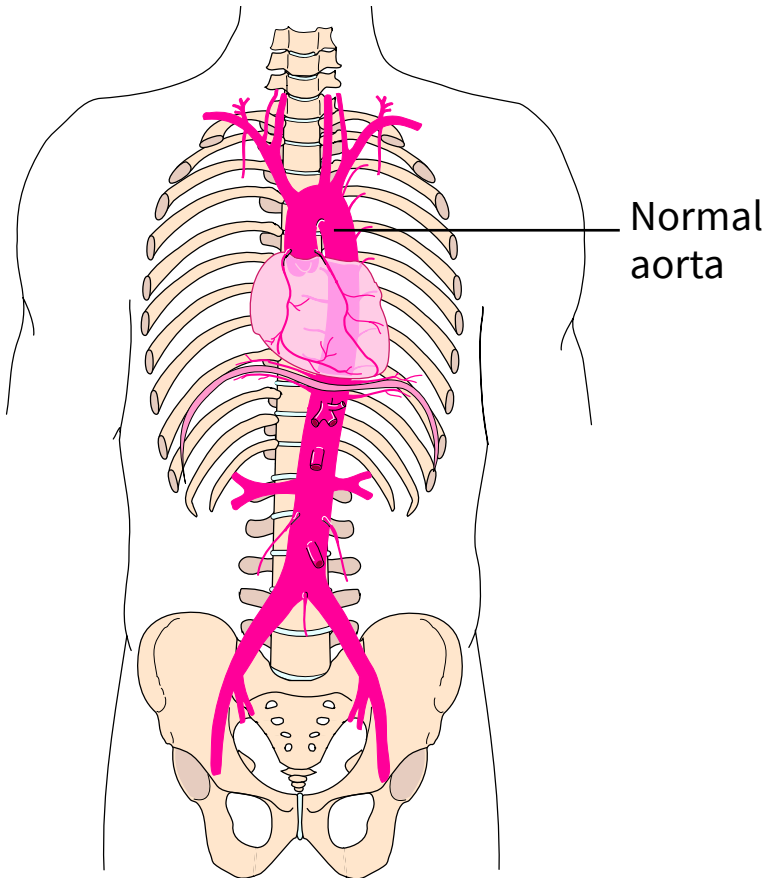


Thoracic Endovascular Aortic Repair (TEVAR)

Thoracic Endovascular Aortic Repair (TEVAR)

- Together, you and your surgeon have decided that you need a **thoracic endovascular aortic repair** (TEVAR). TEVAR is a surgery that puts an endovascular stent graft in your aorta.
- The aorta is the biggest artery in your body. It helps your heart pump blood to all parts of your body.



Why do I need this surgery?

- Injuries or diseases can affect the aorta and cause:
 - › **Aneurysm:** The aorta wall is weakened or the aorta gets bigger.
 - › **Dissection:** The 3 layers of the aorta come apart.
 - › **Transection:** The aorta is damaged by an accident or trauma.
 - › **Stenosis:** The aorta narrows.
- You need surgery so your aorta does not break apart and cause severe (very bad) bleeding. This can cause death.

What are your questions?

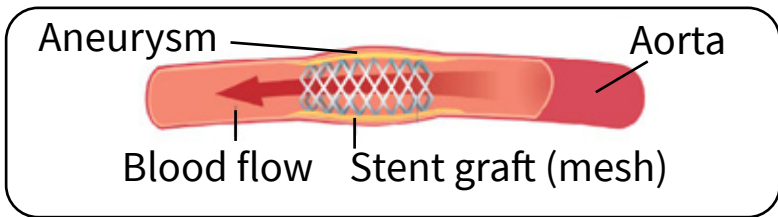
Please ask a member of your health care team. We are here to help you.

How is the surgery done?

There are 2 ways to repair your aorta:

1. TEVAR

- The surgeon will put a stent graft in your aorta. The graft is made of metal mesh covered in fabric.
- They will put the graft through a small puncture (hole) or incision (cut) in your groin.
- The graft will line the inside of your aorta. It will be a new passage for blood to flow through.



2. Open repair

- The surgeon will make a large incision through your breastbone or the side of your chest. The incision may go down to your abdomen (stomach area), if needed. This will depend on the amount of damage to your aorta.

What are the advantages of TEVAR compared to open repair?

- TEVAR is less invasive. It uses a small puncture or incision instead of a larger one.
- It causes less pain because the puncture or incision is smaller.
- It has fewer complications.
- It has a faster recovery time.
- You will spend less time in the hospital.

What are the disadvantages of TEVAR?

- TEVAR is not right for everyone. To decide if TEVAR is right for you, your surgeon will look at:
 - › Your body
 - › How well your kidneys work
 - › The damage to your aorta
- Together, you and your surgeon will decide if TEVAR is right for you.
- You will need long-term follow-up and tests (see page 15).
- You may need more surgery (like another TEVAR or open repair surgery) in the future.

What are the risks of TEVAR?

- All surgeries have risks, like:
 - › Infection
 - › Heart problems
 - › Bleeding
 - › Lung problems
- Other risks of TEVAR include:
 - › The aneurysm could come back.
 - › The graft could move and the aneurysm could keep growing.
 - › The graft could kink or get blocked. This can cause blood to stop circulating.
 - › You may have an **endovascular leak** (bleeding around the graft). If the leak does not go away, the aneurysm will keep growing and you may need a second surgery.
 - › Sometimes, the surgeon may need to do an open repair instead of TEVAR. They may decide this during your surgery.
 - › You may have a stroke, **paraparesis** (weakness in your legs), or **paraplegia** (total loss of function in your legs).
 - › If there is more stress on your heart after surgery, you have a higher risk of having a heart attack.
- Your surgeons will talk with you about the advantages and risks of TEVAR.

How do I get ready for this surgery?

- You will have tests done before your surgery. These may include:
 - › **Coronary angiogram (dye test):** This test looks at your coronary arteries.
 - › **CT scan:** This test gives detailed pictures of your bones and soft tissue.
 - › **Electrocardiogram (ECG/EKG):** This test checks your heart rhythm.
 - › **Pulmonary function test:** This test checks how well your lungs work.
 - › **Echocardiogram:** This test checks how well your heart works.
 - › **Blood work**
- **Do not eat or drink anything after midnight the night before your surgery.** You may take your regular medications with a sip of water, if your surgeon says it is OK.
- **On the evening before or on the morning of your surgery:**
 - › You will have an intravenous (I.V.) put in your hand or arm.
 - › You may have a drain put in near your spinal cord.

What will happen during the surgery?

- You will be cared for by a team of nurses and doctors.
- Your surgeon will work with an interventional radiologist to put in the graft. An interventional radiologist is a doctor who uses X-rays to guide the graft into your aorta and check it is in the right place.
- The surgery will take about 1 to 2 hours. More complicated surgeries may take 5 to 6 hours.

What will happen after the surgery?

- You will wake up on 5.1 Cardiovascular Surgery Intensive Care Unit (CVICU). This is an inpatient unit on the 5th floor of the Halifax Infirmary.
- The CVICU nurses will check:
 - › Your blood pressure
 - › The pulses in your feet
 - › The dressing covering your incisions
- The nurses will attach a cardiac monitor to check your heart.

- You may need a lumbar drain (a small tube in your back) to help keep blood flowing to your spinal cord. This will depend on where the aneurysm is.
 - › A lumbar drain can be left in for 1 to 3 days. You will stay in the CVICU until the drain is taken out.
 - › If you **do not** need a lumbar drain, you may go to the Post-Anesthesia Care Unit (PACU) after your surgery. When you are ready, you will be transferred to Unit 7.1 on the 7th floor of the Halifax Infirmary.

Pain after surgery

- You will have some pain and discomfort for a few weeks after your surgery. It will go away over time.
- Your nurse will check your pain often. They will give you pain medication, as needed.
- **It is important to take pain medication so you are comfortable enough to do deep breathing and coughing exercises.** These exercises keep your lungs clear and prevent **pneumonia** (lung infection).
- Having less pain will help you to move around more.

- The pain medication may make you feel sleepy. You should be awake enough to follow directions and know your support persons.

When can I eat after surgery?

- You may eat when you feel ready. It may take a while for your usual appetite to come back.
- Eating healthy meals will help you get your strength back and heal faster.

When can I get up after surgery?

- When you can get out of bed, your nurse will help you. **Do not get out of bed for the first time on your own.** Call a nurse to help you get up.
- Over time, do more activity as you are able.

How do I care for my incisions?

- You may have small incisions or punctures in your groin or neck.
- Staples or stitches are used to close the incisions.
- **It is very important to tell your nurse if you need help caring for your incisions at home.**

- 1 to 2 weeks after your surgery, your surgeon or your primary health care provider (family doctor or nurse practitioner) will take your staples or sutures out.
- The incisions will be covered by a dressing. Keep the dressing on until your staples or stitches are taken out.
- Keep your incisions clean and dry.
- **Watch your incisions closely for signs of infection, like:**
 - › More pain
 - › Swelling
 - › Heat
 - › Drainage
 - › Redness

Call your primary health care provider if you have any signs of infection.

- You may have some bruising. This is common. It will go away in a few weeks.
- Once your incisions are healed, you can leave them open to the air.
- Your health care team will give you more detailed instructions about how to care for your incisions before you are discharged home. Please talk with your health care team if you have any questions.

How long will I be in the hospital?

- You may be able to go home 4 to 5 days after your surgery. Your surgeon will decide what is best for you.

When can I drive?

- It takes time for your reflexes and focus to go back to normal. You may drive in 2 to 3 weeks. Talk about this with your surgeon at your follow-up appointment.
- **Do not drive if you are taking pain medication.**
- **Do not drink alcohol if you are taking pain medication.**

When can I go back to work?

- This will depend on the type of work you do, as well as your health and recovery. Talk about this with your surgeon at your follow-up appointment.

When can I have sex?

- You can have sex when you feel well enough. Talk with your surgeon or your primary health care provider if you have any questions.

Can I eat and drink as usual?

- You may have constipation (not being able to poop) caused by pain medication, being less active, or the foods you eat.
- Try to eat foods high in fibre, like:
 - › Bran cereals
 - › Fruits
 - › Whole wheat bread
 - › Vegetables
- Ask your primary health care provider about using laxatives (medication to help you poop) or stool softeners, if needed.

What medications should I take?

- Your surgeon will prescribe you medications. They will talk about this with you before you leave the hospital.
 - › **Do not drink alcohol while taking pain medication.**
 - › **Do not drive while taking pain medication.**

Tips for a healthy lifestyle

- A healthy lifestyle can help prevent complications before and after your surgery. It can also help to prevent more circulation problems.

Stop smoking

- **It is very important not to smoke.** Smoking will cause more damage to your arteries. This may cause you to need another surgery.
- Smoking also raises your chance of getting a chest infection, which may slow your recovery.
- If you want to stop smoking, talk with your nurse or your primary health care provider.

Eat healthy foods

- Choose foods that are low in fat. This can help to prevent plaque buildup in your arteries.
- Ask to talk with a dietitian if you need help planning meals.
- Keep a healthy weight.

Be active

- Talk with your primary health care provider before your surgery about what exercises are best for you.
- Exercise:
 - › helps with weight loss.
 - › improves blood flow.
 - › helps to control your blood sugar and blood pressure.

Control diabetes (if you have it)

- Follow your meal plan.
- Check your blood sugar often.
- See your primary health care provider regularly.
- Take your medication or insulin as told by your primary health care provider.

Control your blood pressure

- Have your blood pressure checked regularly.
- Talk with your primary health care provider about what blood pressure reading is best for you.

- Take your blood pressure medication as told by your primary health care provider. If you stop taking it, your blood pressure may go up again.
- Try to lower your stress (see next section).

Lower stress

- Exercise every day.
- Get enough sleep.
- Talk with others about your problems.

Follow-up care

- You will have a follow-up appointment with your surgeon in 6 to 8 weeks.
- You will have a CT scan 1 to 3 months after your surgery, then once a year after that. The scan will check your graft.
- You will get a card that has important information about your graft. **Always carry this card with you.**
- Tell your primary health care provider and your dentist that you have a graft in your heart.
 - › **If you have dental work or major surgery, you will need antibiotics to prevent graft infection.**

Call your primary health care provider or your surgeon's office if:

- Your incision does not heal.
- Your incision gets infected.
- You have any signs of infection, like:
 - › More redness, swelling, drainage, or pain in your incisions
- You have flu-like symptoms for more than 24 hours (1 day), like:
 - › Aches
 - › Chills
 - › Fever (temperature above 38 °C or 100.4 °F)
- The edges of your incisions come apart.

Go to the nearest Emergency Department right away if:

- › You have more pain in your legs.
or
You have pain in your legs that happens when you are resting or with a small amount of activity.
- › You have pain in your back or chest.
- › Your foot or leg changes colour (looks pale or blue).
- › Your feet, legs, or both are unusually cold or warm.
- › Your feet, legs, or both are numb or weak.
- **Do not drive yourself.**

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 this pamphlet and all our patient resources here:
<https://library.nshealth.ca/Patients-Guides>

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

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To be reviewed March 2028 or sooner, if needed.