

Before and After Spine Surgery

Halifax Infirmary

My surgeon: _____

The name of my surgery is: _____

My spine nurse case manager: _____

Pre-surgical education class (date and time): _____

Perioperative Anesthesia Clinic (PAC) appointment: _____

My surgery date: _____

My arrival time: _____



This is a new pamphlet and it is subject to revision. Your feedback is welcome as we work to make this pamphlet better for patients and their support person(s).

› Email: nshaspineassessmentclinic@nshealth.ca

Contents

Pre-surgery checklist	1
What should I bring to my Perioperative Anesthesia Clinic (PAC) appointment?	1
What should I bring to the hospital?	2
Your spine	3
Why do I need surgery?	4
Herniated disc	4
Spinal stenosis	5
Disc degeneration	6
Spondylolisthesis	6
My surgery	7
What will happen before my surgery?	8
How do I get ready for my surgery?	10
Day of surgery	16
After surgery	18
Discharge day	24
Discharge checklist	24
Follow-up appointment	24
At home	25
Activity guidelines	29
When to see a health care provider	33
Contacts	34

Before and After Spine Surgery

Call your Spine Nurse Manager at 902-473-8616 or your surgeon at least 24 hours before your surgery if you have any of the following:

- › Cold symptoms
- › Fever (temperature above 38 °C or 100.4 °F)
- › Cough
- › Flu symptoms
- › Infection (like a bladder infection)
- › Pregnancy
- › Any new sickness

Pre-surgery checklist

What should I bring to my Perioperative Anesthesia Clinic (PAC) appointment?

- ☐ This pamphlet
- ☐ You are encouraged to bring a support person
- ☐ All of your medications (including prescription and over-the-counter medications, supplements, and herbal products) in their original containers
- ☐ Personal directive (if you have one). Please read the pamphlet *Advance Care Planning: Making Your Personal and Medical Wishes Known* for more information:
 - › www.nshealth.ca/patient-education-resources/1942

Before your surgery

- We **strongly recommend** that you make plans to have someone stay with you for a few days after your surgery.
- Make plans to have someone drive you to your appointments after your surgery (if your health care team has told you not to drive).
- You may have surgery as an outpatient or as an inpatient. Your surgeon will talk with you about the type of surgery you need and how long you will have to stay in the hospital.

If you are an outpatient (going home the same day as your surgery):

- › Make plans to have a responsible adult drive you to and from the hospital and stay with you overnight after your surgery.

If you are an inpatient (staying overnight in the hospital after your surgery):

- › Make plans to have a responsible adult drive you to the hospital on the day of your surgery and to drive you home at 11 a.m. on the day you are discharged.

What should I bring to the hospital?

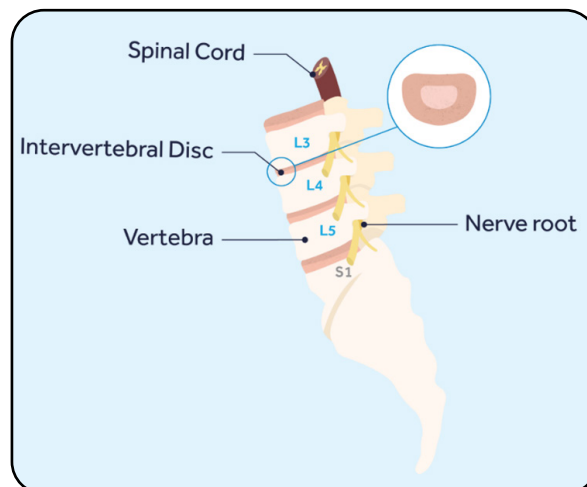
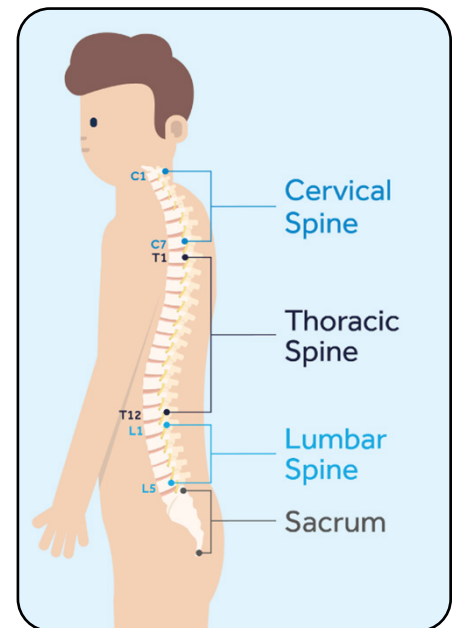
- ☐ This pamphlet
- ☐ Provincial health card
- ☐ Private health insurance card (if you have one)
- ☐ Personal Directive (if you have one)
- ☐ All of your prescription medications in their original containers
- ☐ CPAP (Continuous Positive Airway Pressure) machine (if you have one)
- ☐ 2 to 3 outfits of loose-fitting clothing (like loose shirts, pants with an elastic waist)
- ☐ Comfortable shoes with good grips (with rubber soles) and closed backs
- ☐ Personal care items (like soap, toothbrush, toothpaste, denture care items, deodorant)
- ☐ Earplugs, dentures, hearing aids, and/or glasses (if needed), and cases to store them in (labelled with your name). **Do not** wear contact lenses. If this is not possible, bring your solution and lens container. Tell your nurse you are wearing contact lenses. You must remove them before you go to the O.R.
- ☐ Walking aids (crutches, cane, walker), if needed
- ☐ Reusable bag to place your belongings in
- ☐ Your cell phone and a charger
 - › You may also bring other electronic devices (like a tablet or a laptop)
 - › If you do not have a cell phone or other personal device, we will have other communication options available
- ☐ Reusable water bottle or travel mug

Expectations

- This pamphlet will help you take an active role in your care before and after your surgery. People who are well prepared have a better and faster recovery, have fewer problems with pain, and feel better overall.
- Before having surgery, it is important to keep in mind:
 - › This surgery may **not** relieve all of your pain.
 - › Pain is not always a sign of something being wrong. It can be a sign of healthy recovery of function, motion, and/or strength.

Your spine

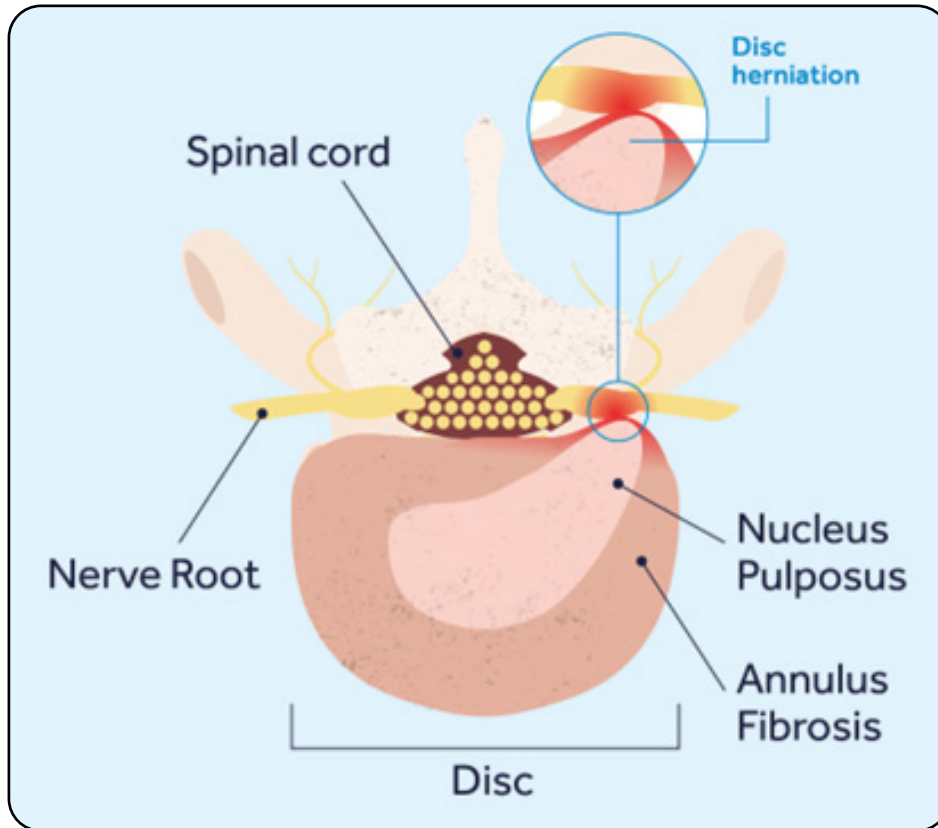
- Your spine is divided into 4 sections:
 - › Cervical
 - › Thoracic
 - › Lumbar
 - › Sacrum
- It is made up of bones called vertebrae:
 - › The C1 vertebra is at the top of your spine. C stands for cervical.
 - › The L5 vertebra is at the end of your spine. L stands for lumbar.
- Between each vertebra, there are round, spongy pads of tissue called discs. These discs:
 - › act like shock absorbers.
 - › help support your body.
 - › let you move and twist.
 - › protect your spinal cord and the nerves throughout your body. In your lower spine, the spinal cord is a group of nerves (called the cauda equina).



Why do I need surgery?

Herniated disc

When a disc between 2 vertebrae bulges or ruptures. This happens when the soft, jelly-like centre of the disc bulges out through the outer layer.



There are 2 nerves between each vertebra which lead from the spinal cord to a specific area of your body. If the herniated disc presses on 1 of these nerves, you may have:

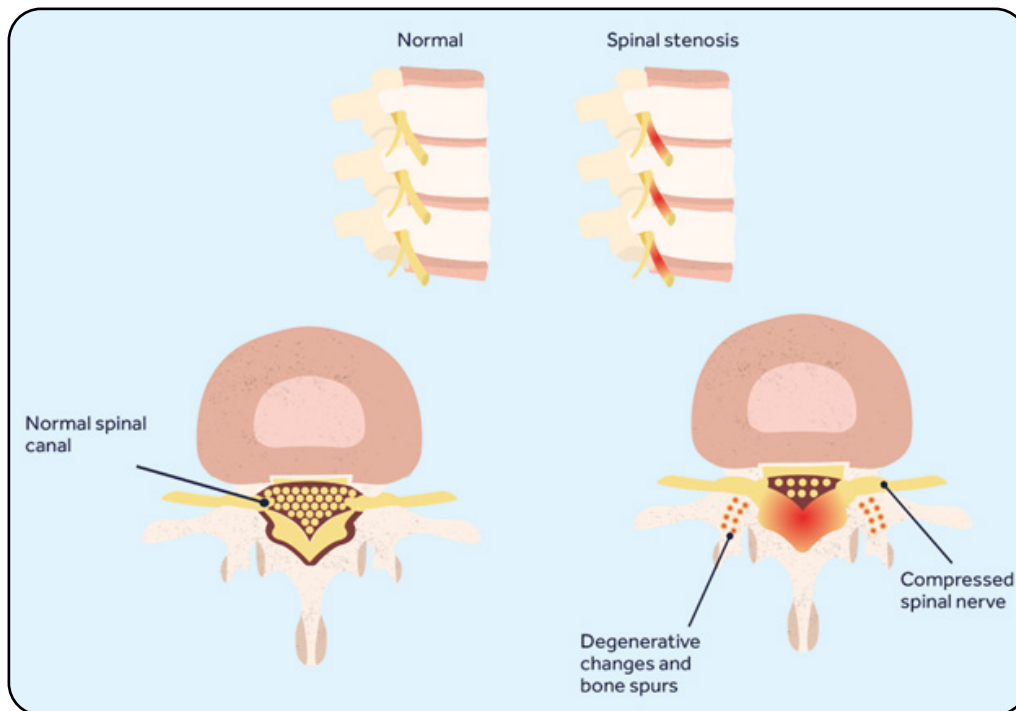
- › Pain (called a radiculopathy). If the herniated disc is in the cervical (upper part) of the spine, you may have pain in your shoulder and/or arm.
- › Sciatica (tingling, numbness, or shooting pain in your buttock [bum] and/or leg)

What are the symptoms?

- Pain in the lower back and/or leg, or in the neck and/or arm

Spinal stenosis

A narrowing of the tunnel around the spinal cord, and the opening where the nerves leave the spine. This narrowing causes the nerves to become pinched or compressed (squeezed).



What causes spinal stenosis?

- The most common cause is degenerative (get worse over time) changes.

What are the symptoms?

- If the nerves are pinched or compressed, you may have:
 - › Pain, numbness, tingling, and weakness in your neck or lower back that may spread into your arms or legs. This can make it hard to walk or stand for a long time.
 - › Leg pain or discomfort (called neurogenic claudication). This is caused by pressure on the nerves in the lower back, especially when walking or standing. It gets better when you sit or bend forward.
- Pressure on the spinal cord (called myelopathy), usually in the neck, may cause:
 - › Balance problems
 - › Numbness in your hands. This may make your hands feel clumsy and make it hard to do small tasks.

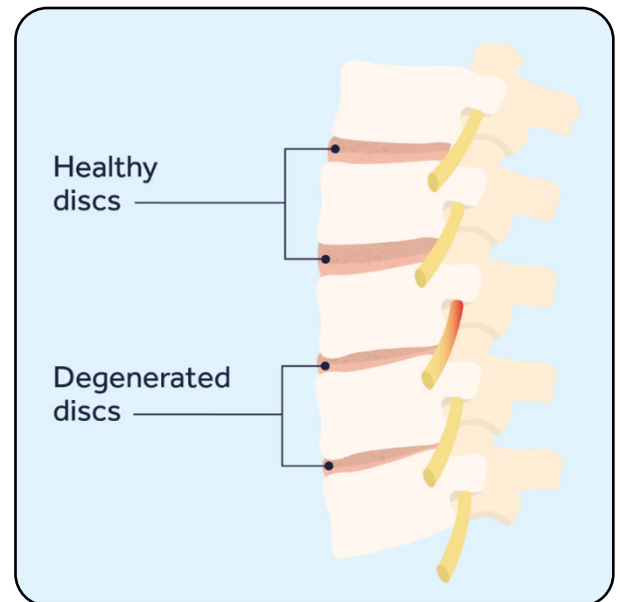
If not treated, it can affect your bladder, bowels, and/or cause trouble when you have sex.

Disc degeneration

Over time, the discs between your vertebrae lose their water. This causes them to become thinner, which brings them closer together. This makes the nerve openings in your spine narrower. The discs are not able to absorb (take in) shocks as well, especially when you walk, run, or jump.

What causes disc degeneration?

- Disc degeneration may be caused by:
 - › Getting older
 - › Poor posture
 - › Not moving your body in the right way



What are the symptoms?

- Stenosis (see page 5)

Spondylolisthesis

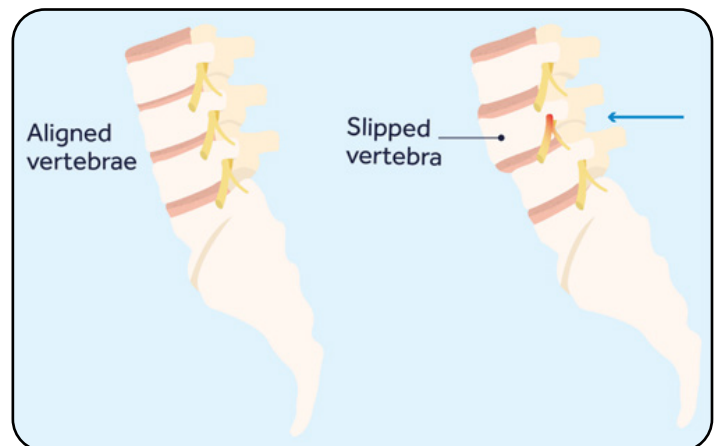
When 1 vertebra slips forward on the vertebra below it. Over time, this causes the lower spine to curve and the tunnel around the spinal cord to narrow.

What causes spondylolisthesis?

- Spondylolistheses may be caused by:
 - › Degenerative disease (like arthritis)
 - › A stress fracture
 - › Trauma

What are the symptoms?

- › Lower back pain
- › Leg pain



My surgery

You may need spine surgery if physiotherapy and medication have not helped treat:

- › Pinched or squeezed spinal nerves
- › A spinal fracture that is causing pain or instability (loss of normal motion)
- › Spondylolisthesis

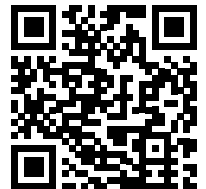
The videos below can help you to understand your surgery. If you have any questions, please ask a member of your health care team.

You can watch these videos by:

- › Visiting the link
or
- › Scanning the QR code on your smartphone (open the camera on your smartphone, point the camera at the code, and tap the banner or border that appears)

Discectomy surgery

- › www.youtube.com/embed/5UmP9hC7xKw



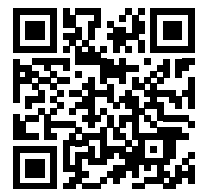
Decompression surgery

- › www.youtube.com/embed/sbFliyvX3pw



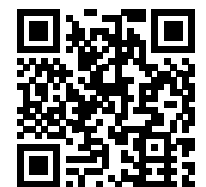
Anterior Cervical Discectomy and Fusion (ACDF) surgery

- › www.youtube.com/embed/h_Mi50DtQAc



Lumbar fusion surgery

- › www.youtube.com/embed/A3hyNo9WBV0



What will happen before my surgery?

Appointments

Spine surgeon

- You will have an appointment with your spine surgeon. They will:
 - › Explain what will happen during your surgery
 - › Explain the risks and benefits of your surgery
 - › Answer any questions you may have about your surgery
- You will be asked to sign a consent form before you can have the surgery.
- The wait time for surgery may be from 3 months to 1 year.

Spine nurse case manager

- You will have an appointment with your spine nurse case manager. They will explain:
 - › How to get ready for your surgery
 - › What to expect while you are in the hospital
 - › How to care for yourself at home
- They will also answer any questions you may have before your surgery, while you recover, and after you have returned home.

PAC

- You will have an appointment with the PAC to help you get ready for your surgery. Your appointment may be in person or over the phone.
- **The appointment will likely be in the 4 weeks before your surgery and may take 3 to 4 hours.**

Please fill out the Pre-surgery checklist on page 1 and bring it with you to your PAC appointment.

During your PAC appointment:

- A pharmacy technician will ask you about your medications. **Bring all of your medications (including prescription and over-the-counter medications, vitamins and supplements, and herbal products) in their original containers.**
- A nurse will ask you about your health, including your medical history and any surgeries you have had. They will tell you:
 - › when to stop eating and drinking before your surgery.
 - › when to arrive at the hospital.
 - › where to go when you arrive at the hospital.
 - › when to stop taking your medications before your surgery, if needed. **Your nurse will tell you what medication(s) to stop taking and when to stop taking it.**
- You may talk to an anesthesiologist (a doctor who gives you medications to put you to sleep or help with pain during surgery). They will explain what medications you may get for your surgery.
- **You may need to have the following tests before your surgery:**
 - › ECG/EKG (electrocardiogram)
 - › Urine (pee) sample
 - › Blood work

Your health care team will talk with you about this.

If you do not have these tests done before your surgery, your surgery may be cancelled.

How do I get ready for my surgery?

Preparing physically and mentally for surgery can improve your chances of a successful surgery and recovery. There are things you can do before and after your surgery to:

- › gain more strength.
- › improve your overall health and well-being.

Before your surgery:

1. Get mentally prepared for your surgery.

- It is common to be nervous before having surgery. To help manage your pain and anxiety while you wait for your surgery:
 - › Learn about your surgery.
 - › Learn how to care for yourself before and after your surgery.
 - › Read this pamphlet and ask your health care team any questions you may have.
 - › Talk with your support person(s) about how you are feeling.

2. Exercise.

- People who exercise before surgery tend to recover faster after surgery. It may be hard to exercise with your condition, but it is important to:
 - › keep moving as much as possible.
 - › keep doing your daily activities (like going for walks, getting groceries, tidying around the house) as usual.
- If you exercise regularly, try to keep it up as you wait for your surgery (as long as it does not cause your condition to get worse).

Aerobic exercise

- This is any exercise that raises your heart rate (like walking, biking, swimming). Try to be active each day and do a full 30 minutes of aerobic exercise 5 times a week (if you are able).
- **Remember, all movement counts. Any amount of movement you do is better than not doing any.**

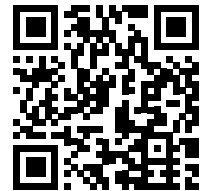
Breathing exercises

Doing breathing exercises before and after your surgery may help you to:

- › Relax
 - › Keep your lungs healthy
 - › Avoid complications
 - › Recover faster
1. Lay down, sit, or stand in a comfortable position.
 2. Relax your neck and shoulders.
 3. Take a deep breath in through your nose (if possible) and hold for 3 seconds.
 4. Then, breathe out slowly through your mouth.
 5. Repeat 10 times.

Deep Breathing (video):

- › www.youtube.com/watch?v=vc9vixiH3lQ



3. Eat healthy foods.

- It is important to eat healthy foods (like fruits and vegetables, whole grains, lean protein, and healthy fats) to help your body:
 - › have the nutrients it needs before your surgery.
 - › recover well after your surgery.

To help you eat healthier:

- Try to drink 1.5 to 2 L of water each day.
- Try to drink water instead of drinks that are high in sugar (like pop, juice, energy drinks).
- At each meal, try to fill your plate with:
 - › ½ fruits and vegetables
 - › ¼ whole grains
 - › ¼ lean protein
- Eat fruits and vegetables (fresh, frozen, or canned with low or no salt) at every meal. These foods are high in fibre and can help you have regular bowel movements (poops).
- Try to eat carbohydrates that have lots of fibre and that have not been processed. Whole grains (like wholegrain breads or pasta, quinoa, oatmeal) have:
 - › Nutrients to keep your gut healthy
 - › Fibre

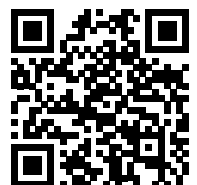
- Choose lean sources of protein (like chicken, fish, beans, lentils). Limit red meat to 1 or 2 times a week.
- Include healthy fats, like:
 - › Avocados
 - › Fatty fish (like salmon)
 - › Nuts
 - › Seeds
- Instead of using salt, or bottled sauces or salad dressings, try flavouring foods with:
 - › Pepper
 - › Spices
 - › Nut or plant oils (like olive oil)
- You may need to take a supplement (like vitamin D, vitamin B12, iron, vitamin C). Ask your primary health care provider (family doctor or nurse practitioner) or pharmacist if a supplement is right for you.

Protein

- Your body needs protein to keep up your strength before surgery and to help with healing after surgery.
- **At least one (1) week before and after your surgery, try to eat 20 to 25 g more of protein each day.** One way to do this is to try to add protein at every meal and snack, like:
 - › Beans, peas, and lentils
 - › Cottage cheese
 - › Eggs
 - › Fish
 - › Greek yogurt
 - › Nuts and seeds
 - › Peanut butter
 - › Poultry (like chicken, turkey)
 - › Red meat
 - › Soy products
- If you find it hard to eat this much protein, you may wish to try a nutrition supplement, like:
 - › Boost®
 - › Ensure®
 - › Glucerna® (if you have diabetes)
 - › Protein powder
- For more information, read the pamphlet *High Energy, High Protein Guidelines*:
 - › www.nshealth.ca/patient-education-resources/0564

Canada's Food guide

- Learn about choosing healthy foods, serving sizes, and healthy meal ideas.
 - › <http://food-guide.canada.ca/en/>



Health Canada – Nutrition labelling

- › www.canada.ca/en/health-canada/services/understanding-food-labels.html



4. Keep a healthy weight.

If you are underweight:

- Not having enough nutrients can slow your recovery and cause:
 - › Poor bone health
 - › A weaker immune system
 - › Less energy
 - › A higher chance of infection
- If you are worried you are not getting enough calories, nutrients, or protein, talk to your spine nurse case manager.
- If you are losing weight without trying and you have a lower appetite (do not feel like eating as much), talk with a dietitian or your primary health care provider.

If you are overweight:

- Losing as little as 5 % of your weight can improve:
 - › Your mobility (movement) after surgery
 - › How well the surgery works to lower the symptoms you had before surgery (like pain)
- If you are overweight and you would like support managing your weight, talk with your primary health care provider, visit a dietitian, or check out the programs offered by Community Health Teams:
 - › www.nshealth.ca/clinics-programs-and-services/community-health-teams

5. Stop or cut back on smoking and alcohol.

- Try to smoke less or stop smoking before your surgery. **Smoking and vaping cause:**
 - › **Slower healing**
 - › **A longer hospital stay**
 - › **A higher chance of complications (like an infection)**
- If you are vaping as a way to quit smoking, try to vape less before your surgery.

If you would like to quit smoking:

- The best way to stop smoking is with counselling (see resources on page 14) and medication. Ask your pharmacist or primary health care provider which medication is right for you.

Mental Health and Addictions Program

- › <https://mha.nshealth.ca/en>

To register for a Stop Smoking Program:

- › Phone (toll-free): 1-855-922-1122

Tobacco Free Nova Scotia

- › <https://tobaccofree.novascotia.ca>
- › Phone: 811

Health Canada

- › Phone (toll-free): 1-866-366-3667 (English)
- A trained counsellor will talk with you about issues like cravings and withdrawal. They will work with you to make a plan to quit that is right for you.

Remember: Nova Scotia Health is smoke-free and vape-free.

6. Keep a healthy blood sugar level (if you have diabetes).

- Getting your blood sugar level healthy before and after your surgery will help with healing and lower your risk of infection.
- If you are having trouble with this, talk with your primary health care provider or spine nurse case manager.

7. Get your home ready for your recovery.

- It is important to set up your home **before** your surgery.
 - › Put items that you use a lot where they are easiest to reach (between shoulder and waist height), so you do not have to reach up or down.
 - › Make sure you have a firm chair with armrests. The seat should be level with the top of your knee. This will make it easier for you to get in and out of the chair.
 - › Make sure hallways, stairs, and bathrooms are well-lit. Remove any tripping hazards (like area rugs, electrical cords).
 - › Make sure there are handrails on all staircases, both inside and outside your home (if possible).

- › Stock up on items you may need (like groceries, personal items, medications).
- › Prepare and freeze meals to reheat (if possible), or plan for a loved one to help with meals.
- › Buy bags of salt or sand if your surgery is in the winter. Arrange to have someone shovel your walkways. Stock wood for your wood stove, if needed.

8. Get any equipment you may need after your surgery.

- **If you use a walking aid:**

- › Bring it with you to the hospital on the day of your surgery.

- **If you are an inpatient:**

- › Have your support person take your walking aid back home after you are in the hospital. We have walking aids you can use during your stay.

- **When you are discharged:**

- › Have your support person bring your walking aid to the hospital. A physiotherapist will make sure it fits properly.

If you need equipment after surgery:

- The inpatient physiotherapist or occupational therapist can help arrange equipment for you. You may need 1 or more of the following items:

- › Bath seat (for a tub) or tub transfer seat, shower seat or chair (for a walk-in shower)
- › Raised toilet seat
- › Grab bars
- › Non-slip bathmat (inside and outside of the tub or shower)
- › Long-handled reacher, sock aid, elastic laces, long-handled shoe horn
- › Long-handled sponge or brush
- › Firm, sturdy chair at least knee height (with armrests)
- › Cane, crutches, or walker
- › Brace, if needed

The night before or the morning of surgery



- **Do not drink alcohol for 24 hours (1 day) before your surgery.**
- Follow the instructions the PAC gave you about eating, drinking, and taking medications.
- Take a bath or a shower the evening before or the morning of your surgery. Wash all parts of your body, including your hair. **Do not use scented products.** Nova Scotia Health is scent-free.
- You will be given instructions about how to get your skin ready for surgery, if needed.
- **Do not smoke or vape after your evening meal the night before your surgery.**
- **Nova Scotia Health is smoke-free.** Ask a member of your health care team about the Smoking Cessation Program, if needed.
- Remove all gel nails and nail polish on your fingers and toes.
- **Do not** wear any jewelry, including toe rings. Any item used to pierce **ANY** body part (like the nose, belly button, tongue, or ear) must be removed at home.
- Leave all valuables (like jewelry, money, credit cards, or cheque books) at home. The hospital is not responsible for the loss of any item.

Day of surgery

- Follow the instructions from your surgeon's office about the date and time of your surgery.

Please arrive 3 hours before your scheduled surgery time.

› Example: If your surgery is at 10 a.m., arrive at registration at 7 a.m.

- Follow the instructions from the PAC on where to go and where to register.

Delays

- Delays in the operating room (O.R.) may cause a change in your scheduled surgery time.
- **There is a chance your surgery may be cancelled because of an emergency or not enough hospital beds. If this happens, your health care team will tell you what to do next.**

Same Day Surgery Unit/Pre-operative (pre-op) area

- This is where you will get ready for the O.R.
- The anesthesiologist will talk with you about the medications you will get.
- A nurse will ask you to change into a hospital gown, a housecoat, and slippers. Your clothes and other items will be placed in a bag in a locker.
- The nurse will go over your admission paperwork with you.
- Your support person can wait with you in the pre-op area until it is time for you to go for surgery.

The O.R.

- For your safety, the O.R. nurse will ask you questions based on a surgical safety checklist. They will then bring you to the O.R.
- All staff in the O.R. wear caps, gowns, and masks.
- The O.R. is usually cold. We will give you a warm blanket.
- O.R. staff will help you move to a bed. There will be a lot of equipment on tables around you. This is normal.
- Before you go to sleep, you will have an intravenous (I.V.) tube inserted (put in) in a vein in your arm. Through the I.V., you will get medications that will help you relax and make you go to sleep.
- Your surgeon and anesthesiologist will talk with you just before you are put to sleep.

Updating your support person(s) about how your surgery is going

- Your support person(s) is an important part of your care.
- Every Nova Scotia Health hospital has a waiting area for support persons to wait in.
- A liaison nurse visits the waiting area several times during the day. They will tell your support person(s) about your condition and progress.

Liaison nurse hours:

- › Monday to Friday, from 9 a.m. to 5 p.m. (closed on holidays)

After surgery

Recovery area

- You will wake up in the Post-Anesthesia Care Unit (PACU) to recover from your anesthetic. This will take 1 to 4 hours. The nurses in the PACU will check your:
 - › I.V.
 - › Dressings
 - › Vital signs (blood pressure, pulse, breathing, oxygen levels)
 - › Drainage tubes
 - › Circulation, strength, and sensation (feeling) in your arms and legs
- The nurses will check your pain level. You may be asked to rate your pain on a scale of 0 to 10 (0 being no pain and 10 being the worse pain you have ever felt).
- The skin around your surgery site may look like it has been dyed pink. This is normal. The dye is from a liquid that O.R. staff use to clean your skin before surgery.
- When you are more awake and comfortable, PACU staff will take you to the Spine Unit. You may also be discharged home.

How long will I be in the hospital?

- This is different for everyone. It will depend on the type of surgery you had and how many vertebrae were operated on. If you are an inpatient, you will likely stay for 1 to 2 nights.

Spine Unit (7.3)

- During your stay on the inpatient spine unit, your health care team may include:
 - › **An attending doctor:** This is the surgeon responsible for your care during your hospital stay. You may not see them if they are in surgery or at the clinic.
 - › **Surgical residents and fellows:** These are doctors in training who are specializing in neurosurgery (surgery of the brain, spine, and nerves) or orthopaedic (bones and joints) surgery. You will see these doctors each day.

- › **Nurse practitioner (NP):** This is a nurse with advanced training. They will make sure you have all of your medications and tests, and help with your discharge planning.
- › **Nurses (RN or LPN):** Your nurses will care for you and make sure you get all of your medications and tests. They will also help you get ready for discharge.
- › **Continuing care assistant (CCA):** The CCA will help with your daily care (like bathing, taking vital signs).
- › **Physiotherapist (PT):** The PT will help you move safely after surgery and get any items you may need at home.
- › **Occupational therapist (OT):** The OT will show you how to do your personal care activities (like bathing, dressing, caring for yourself, and going to the bathroom) to make sure you are safe and independent at home. They will show you how to use adaptive equipment, if needed.

Other team members may include:

- | | |
|-------------------------------|------------------------------------|
| › Dietitian | › Rehabilitation (rehab) assistant |
| › Continuing Care Coordinator | › Social worker |
| › Recreation therapist | › Spiritual care |

Pain

Types of pain:

- **Surgical pain** happens after surgery from the incision (cut) in your skin, muscles, and bone. It will be worst on the 1st day after your surgery, then get better over time.
- **Nerve pain** may happen after surgery when nerves have been irritated during surgery. It is often described as throbbing, burning, tingling, or radiating. It can also include spasms (quick, sharp shooting pains).

Pain control

- Your pain will feel the worst for the first 48 hours (2 days) after your surgery. Pain after surgery should slowly get better over the next 6 weeks.
- Your nurse will give you pain medication, like Tylenol® and NSAIDs (nonsteroidal anti-inflammatory drugs, like Advil® and Celebrex®) on a schedule.
- If you need more pain medication outside of this schedule, ask your nurse right away.
- **Do not wait until you are in very bad pain before asking your nurse for more medication.** Treating your pain early will help your healing.
- Take pain medication about 30 to 60 minutes (half an hour to 1 hour) before you exercise and before you are discharged.

Constipation (not being able to poop)

- Constipation can be caused by what you eat, pain medications, and moving less.

To help with constipation:

- › Drink at least 8 glasses (2 L) of water or low-calorie fluids (like low fat cow's milk, fortified plant-based drinks [like unsweetened soy or almond milk], unsweetened coffee or tea) every day, unless you have been told not to because of another health problem.
- › Eat more fibre (like prunes, bran, beans, lentils, fruits, and vegetables).
- › Drink prune juice.
- › Keep active. For example, go for a walk every day.
- › You may need to take medications (like laxatives or stool softeners) to help you poop. If you are in the hospital, ask your nurse for a stool softener. If you are at home, talk with your pharmacist or your primary health care provider.
- **Constipation can be serious. Do not ignore your symptoms (like when, how often, and how easily you poop and pass gas).** If you have not pooped for 2 or more days:
 - › If you are in the hospital, talk with your nurse.
 - › If you are at home, talk with your pharmacist or your primary health care provider.

Passing urine

- Tell your nurse:
 - › when you urinate (pee) for the 1st time after surgery.
 - or
 - › if your bladder feels full, but you are not able to empty it.

Go to the nearest Emergency Department right away if:

- › Your bladder feels full and you are not able to pee.
- › You cannot control your bladder and you do not know why.
- › You see blood or clots in your urine.

Blood clots

Deep vein thrombosis (DVT)

- Some people get blood clots after surgery. This is rare. Blood clots usually happen in the deep veins in the legs. This is known as a Deep Vein Thrombosis (DVT). People who are not active or who have problems with their circulation are more likely to develop a blood clot.

Symptoms of a DVT:

- › More pain, swelling, or tenderness in **either** leg or in your groin area
- › Warmth and redness in your lower leg

If you have any symptoms of a DVT, go to the nearest Emergency Department right away.

Pulmonary embolism (PE)

- Sometimes, a blood clot may travel from your leg to your lung, cutting off the blood flow to your lungs. This is rare. This is known as a **Pulmonary Embolism (PE) and is a medical emergency.**

Symptoms of a PE:

- › Cough (that you did not have before surgery)
- › Fever (temperature above 38 °C or 100.4 °F)
- › Shortness of breath (worse than before surgery)
- › Very bad sweating (while resting)
- › Wheezing (that you did not have before surgery)
- › Confusion (that you did not have before surgery)
- › Coughing up blood
- › Sharp, knife-like pain in your chest or back when you breathe in (worse than before surgery)

A PE can be life-threatening. If you have symptoms of a PE:

- › If you are in the hospital, tell your nurse right away.
- › If you are at home, call 911 right away.

Nausea (feeling sick to your stomach) and vomiting (throwing up)

- Nausea is common after surgery. Tell your nurse and they can give you medication to help.
- Eat small snacks and meals often. This will help you get the nutrition you need for recovery.

Bruising

- You may have bruising at the surgery site. This is common. The bruise may change colour as it heals (from dark purple to yellow or green).

Getting moving

- Moving soon after surgery helps with recovery and lowers your risk of complications (like a blood clot).
- You should be up and walking on the day of your surgery.
- **Do not get out of bed by yourself for the 1st time. Ring your call bell for a nurse to help you get up.** Tell your nurse if you feel weak or dizzy.
- Once you can walk alone, take short walks often. Try to walk longer distances as you are able.
- Do your usual personal care activities each day you are in the hospital.
- Do breathing exercises (see page 11) every hour while you are awake.

Ankle pumping

This exercise helps to improve circulation (blood flow) in your legs.

Do this for 1 to 2 minutes every hour while you are awake. Keep doing it the day after your surgery, until you are up and moving around.

1. Relax your legs.
2. Gently point your toes towards the ceiling.
3. Then gently point your toes towards the bottom of the bed.



Discharge day

Discharge checklist

When you leave the hospital, you will need:

- ☐ A follow-up appointment:
 - › When you are discharged, your health care team will tell you who will remove your staples or stitches (if needed). This is usually 10 to 14 days after your surgery.
- or**
- › You will get a follow-up appointment by phone or mail after you get home.
- ☐ A responsible adult ready to pick you up at 11 a.m. on the day you are discharged to drive you home
- ☐ Prescriptions
- ☐ Instructions for how to care for your incision (cut) and dressing (bandage)
- ☐ Any other discharge instructions from your health care team
- ☐ Answers to any questions you may have

If you are travelling a long distance (more than 50 km):

- › Change your position often using the recline feature on the seat.
- › Plan to stop often. Get out of the car to move and stretch when you stop.
- › Bring extra pillows to help you get comfortable.
- › Remember to take pain medication before you leave the hospital.
- If you are an outpatient and you live far away, your surgeon may recommend staying overnight near the hospital.

Follow-up appointment

- **Make sure you review any information you were given in the hospital.**
- You will have a follow-up appointment about 6 weeks to 3 months after your surgery. This will depend on your surgeon and the type of surgery you had. The appointment may be in person or by phone.
- **Write down any questions you have and bring them to your appointment.**
- Bring your support person with you to listen and take notes, if possible.

At home

- It is important to take an active part in your care. Before you are discharged, your health care team will make sure you are able to:
 - › control your pain.
 - › do your daily activities.
 - › safely walk short distances.
 - › safely walk up and down stairs, if needed.

Controlling pain

- Pain is common after any surgery. Having good pain control helps you recover faster. It can help you exercise, sleep, and take part in daily activities.
- Try to use as little medication as possible, but enough to control your pain. This will help to avoid side effects (like constipation).
- **Do not wait for your pain get out of control.** Keep your pain at a level you can deal with. Take pain medication (like acetaminophen [Tylenol®]) regularly.
- When you start to feel discomfort, take pain medication. Treating your pain early will help your healing. Breathing, coughing, moving, and resting will be easier if you treat your pain.
- You will feel better over time. Taking care of yourself will help you get back to your usual activities sooner.

Pain caused by your surgery should get better over the next 6 weeks. Talk with your spine nurse case manager or your surgeon if pain is stopping you from taking care of yourself, sleeping, or exercising.

Spine nurse case manager

- › Phone (office): 902-473-8616

Hours:

- › Monday to Friday, 7:30 a.m. to 3:30 p.m. (closed on holidays)

If you are in severe (very bad) pain outside of these times, go to the nearest Emergency Department right away.

How do I care for my incision (cut)?

- You may have glue, stitches, or staples at the incision site. Your health care team will tell you what you have and how to care for your incision.
 - › If you have Steri-Strips™ (strong pieces of tape) over the incision, they will fall off on their own after 7 to 10 days.
 - › If you have skin glue, it will fall off on its own over time. **Do not** pick at it.
 - › Stitches usually dissolve (go away on their own). If you have stitches that do not dissolve, a member of your health care team will tell you. Make an appointment to have these removed by your primary health care provider 10 to 14 days after surgery.
 - › Staples should be removed by your primary health care provider 10 to 14 days after your surgery.

If you have a bandage over the incision:

- › You can take it off 72 hours (3 days) after your surgery. Leave the incision open to the air.
- › It is common to have some drainage. If the incision is draining clear, reddish fluid, you can leave the bandage on until it stops.
- Keep the incision dry and clean.

Call your spine nurse case manager if:

- › You have more drainage than usual
- › The drainage changes colour (is green or yellow) or is thicker
- › The drainage has a bad smell
- › You have redness, swelling, or warmth around the incision
- › You have a fever (temperature over 38 °C or 100.4 °F) or chills
- › You have vomiting

When can I have a shower or bath?

- You can shower 72 hours (3 days) after your surgery. **Do not soak in a tub, hot tub, or pool until your incision is fully healed.** This is usually in about 14 days (2 weeks).
- You can get the incision wet in the shower, but **do not spray water directly on it.**
- **Do not wash or rub the incision.**
 - › If you have Steri-Strips™, pat them dry. **Do not rub.**

- It may help to use a bath bench or chair and a spray hose attachment if you are not steady on your feet.
- When washing your hair, turn to face the shower to prevent bending your neck or your back too much.

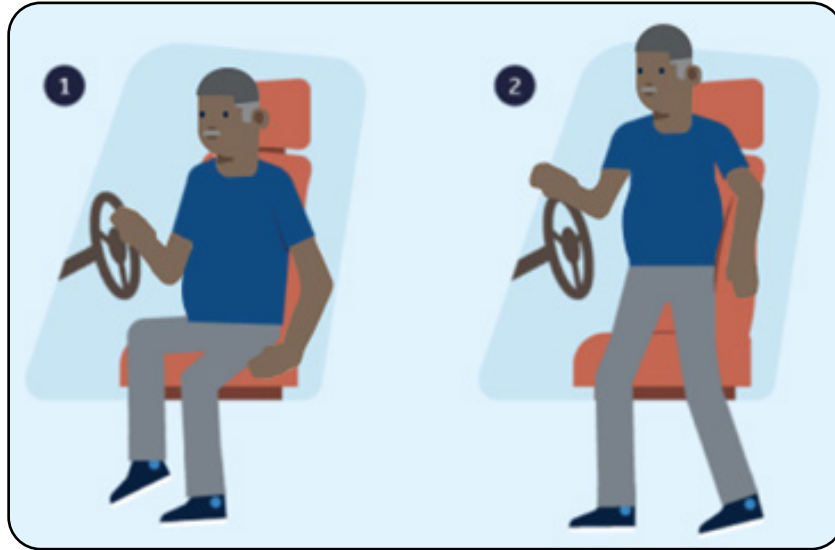
When can I drive?

- This is different for everyone. Follow the directions given to you by your surgeon.
- **Most people should not drive for 2 weeks after their surgery.** This is because reaction times may be slower than usual after having surgery.
- Before driving again, you must be able to do all of the following:
 - › You can safely turn your neck to see blind spots.
 - › Your pain is under control. Pain can distract you, and limit your movements and reaction time.
 - › You do not have any new weakness or numbness (that was not there before your surgery). If you do, talk with your surgeon at your follow-up appointment before driving.
 - › You are not taking pain medications. They can affect your thinking and reaction time, and make you tired. **Do not drive while taking pain medications.**
 - › Your surgeon has not given you any driving restrictions.
- If you are not sure about driving, please talk with your spine nurse case manager or your surgeon.
- When riding in a car as a passenger, move your legs often and do ankle pumping exercises.

To get into a car:

1. With the car door fully open, back up to the car until you feel it against your legs.
2. Slowly lower yourself onto the seat and slide in.
3. Adjust the seat to support your back.

Do these steps in reverse order to get out of a car.



- Depending on the height of the car, it may be easier to get in from the curb or from street level. If possible, **avoid vehicles with low seats.**

When can I go back to work?

- This will depend on what type of job you have as well as your work environment. Ask your surgeon at your follow-up appointment when you can go back to work.
- It may be best to go back to work slowly over time (for example, working less hours and/or doing less or lighter duties).
- If you need time off work, ask your employer if you need to fill out any forms.

If you had spine surgery, DO NOT lift more than 10 pounds (like 2, 2-litre pop bottles or a 4-litre jug of milk) for 6 to 8 weeks, unless your surgeon tells you this is OK.

Activity guidelines

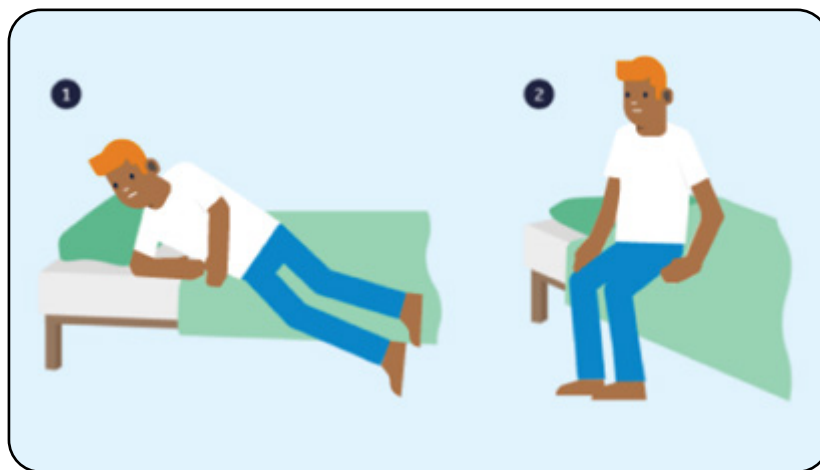
Exercise

- It is important to stay active after your surgery to keep your back healthy. This may cause mild discomfort.
- Start each activity slowly and gradually do more over time. Let your body be your guide. If something hurts, stop and change position.
- If you are able, make each walk 5 minutes longer each day. Do this until you are walking for a total of 30 minutes a day.
- If you have more back, leg, or arm pain, **do not** walk as long. Once you are comfortable, slowly start walking more again.

To get out of bed:

1. Roll onto your side, keeping your spine straight and your hips in line with your shoulders. **Do not twist your back.**
2. Pull your knees up, then drop your legs over the side of the bed, while pushing up with your elbow and hands.

Do these steps in reverse order to get in bed.



- It can be hard to get up from a very low bed. Use bed frame supports to raise the height of your bed, if needed.
- It is best to sleep on your back or on your side (with your back straight). **Do not** sleep on your stomach (belly) or sitting up.

If you like sleeping on your back:

- › Place a pillow under your knees. This will help to keep the normal curve of your lower back.
- › You can place a small, rolled towel under the small of your back for more support.
- › Use a pillow to support your neck.

If you like sleeping on your side:

- › Pull your legs up slightly towards your chest. Put a pillow between your legs.
- › Use a full-length body pillow (if you have one).

You may find that it hurts to get in and out of a chair. Follow the steps below and on the next page.

To sit on a chair:

1. Back up until you feel the edge of the chair touching the backs of your legs.
2. Reach for the arms of the chair behind you. Hold onto the armrests.
3. Lower yourself to a sitting position slowly and gently.
4. Reposition yourself to the back of the chair, keeping your spine straight.
5. Keep your feet flat on the floor.



- Use a chair with a firm seat and armrests. The seat should be at or above the level of your knee. You can make the seat higher by adding a firm cushion.

To stand up from a chair:

1. Slide your buttocks (bum) to the edge of the chair. Keep your feet in line with your knees and shoulder width apart.
 2. Keep your spine straight.
 3. Move your shoulders forward, so that your nose is over your toes. Push on the armrests to lift yourself up.
 4. **Do not twist your back.** Be careful not to twist your back while bending forward.
- You may have discomfort if you sit in the same position for a long time. Change positions or get up and walk around often.

Lifting

- **Do not** lift or push anything that weighs more than 10 pounds (like groceries, children) for 6 to 8 weeks (1½ to 2 months) after surgery.
 - › You may want to have your groceries delivered. The Victorian Order of Nurses (VON) offers a meal delivery service called Meals on Wheels.
 - › <https://von.ca/en>
 - › If you do not have your groceries delivered, spread the weight evenly between 2 bags and hold 1 on each side.
- Ask with your surgeon at your follow-up appointment when you can lift more than 10 pounds.

To bend down and lift an object:

1. **Do not lean forward at your waist.**
2. Bend your knees, then reach down and lift the item with both hands. Keep your spine straight and keep the item close to your body.
3. When standing back up, keep your back straight and use your legs to lift.
4. **Do not lift and twist.** Once you are standing up holding the item, move your feet to turn your whole body and put the item down.



To get dressed:

- It is easier to get dressed while lying or sitting down.
- 1. Bend forward carefully to put on socks, shoes, or pants.
- 2. To put on socks or shoes, lift 1 foot and rest it on the opposite knee.
 - › If this is hard to do, you may want to use a sock aid or a reacher/grabber tool. Talk with your PT about this, if needed.
- Choose footwear that is comfortable, with a good grip and an enclosed back.

To do household chores:

- **Do not** do household chores (like vacuuming, cleaning, washing the floor) **until these activities are no longer painful.**
- When you go back to doing these activities, make sure to keep your spine straight and take small steps. **Do not** twist.



When to see a health care provider

Call your spine nurse case manager or your surgeon right away if you have any of these symptoms:

- Fever (temperature above 38 °C or 100.4 °F)
- Nausea or vomiting
- Chills or shaking
- Drainage from the incision that has a bad smell
- Edges of the incision come apart or a hard lump forms under the incision
- **More** redness, swelling, or warmth around the incision
 - › Some redness around the incision is a normal part of the healing process.
- You cannot control your bowels or your bladder and you do not know why
- You see blood in your urine
- Your bladder feels full and you are not able to urinate
- More numbness or muscle weakness in your arms, legs, or buttocks
- Pain that does not get better even with pain medication
- Pain, redness, swelling, tenderness, or warmth in **either** leg that does not go away after moving or massaging the area
- Trouble breathing
- Chest pain

If you cannot reach your spine nurse case manager or your surgeon, call 911 or go to the nearest Emergency Department right away.

Contacts

Spine Assessment Clinic

Halifax Infirmary
1796 Summer Street
Halifax, NS B3H 3A6

- › Phone: 902-473-1935
- › Patient switchboard: 902-473-2700

Parking:

- Parking is free for patients and visitors at:
 - › **Halifax Infirmary Parkade:** 1797 Summer Street
 - › **Veterans' Memorial Building:** 5955 Veterans' Memorial Lane
- Staff will give you a ticket to leave gated lots.
- You must pay to park at the Museum of Natural History (1747 Summer Street).

Spine nurse case manager

- › Phone (office): 902-473-8616
- › Email: SpineNursing@nshealth.ca

Spine Unit (7.3)

- › Phone: 902-473-2088

Orthopedic Missed Appointment Line

- › Phone: 902-473-5640, extension 1

Surgeons

- | | |
|-----------------------|-----------------------|
| • Dr. M. MacLean | • Dr. A. Glennie |
| › Phone: 902-473-6803 | › Phone: 902-473-3707 |
| • Dr. S. Barry | • Dr. W. Oxner |
| › Phone: 902-473-5766 | › Phone: 902-473-3717 |
| • Dr. S. Christie | • Dr. L. Weise |
| › Phone: 902-473-2096 | › Phone: 902-473-6850 |

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

Questions for my health care team:

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