

Spinal Cord Stimulation

QEII

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Spinal Cord Stimulation

You have been offered spinal cord stimulation to help control your pain. This method of pain control will not take away the problem that causes your pain, but it may help lower your pain.

Spinal cord stimulation works by sending tiny electrical impulses through a lead to block the pain signal from reaching your brain.

There are 3 steps:

1. The implantation (placement) of the temporary lead in your back
2. A trial period using an external (outside your body) neurostimulator (ENS)
3. The permanent implantation of a spinal cord stimulator

Not everyone goes through all 3 steps.

This guide will explain what will happen in each step. Your neurosurgeon will talk with you before your surgery. They will ask you to sign a consent form. This is a good time for you and your family to ask any questions you may have.

Your health care team will also ask you to set 3 goals to achieve during the trial period. For example, improving sleep, walking further, wearing walking shoes, or standing to do dishes. These goals will help measure your trial period success.

Step 1. Implantation of the temporary lead in your back

- You will be taken to the Operating Room (OR) where the anesthesiologist (doctor that monitors you to keep you safe and comfortable during surgery) will place an intravenous (IV) needle in your arm. This will be used to give your body fluids during the surgery.
- You will receive an injection of local anesthetic (freezing medication) where the lead will be placed in your back. This will help lower any pain you may feel and help you relax.
- Using an X-ray to guide a spinal needle, the neurosurgeon will place a temporary lead(s) into the space near your spinal cord.
- You will likely be awake during surgery, but you may need to be put to sleep. The health care team will ask you questions to make sure the lead(s) is in the right place. This will help them decide if the stimulation will help to control your pain.
- If you and your health care team feels the placement of the lead(s) may help your pain, you will move to step 2. If not, the lead(s) will be removed.
- You will be able to go home the same day.
- In some cases, an electrode might be placed by putting you under general anesthesia (medication to put you to sleep).

Step 2. Trial period using an external neurostimulator (ENS)

- The trial period will last 7 to 10 days. You will be at home during this time.
- You will have a dressing (bandage) on your back and some wires sticking out. The wires will be connected to a machine called an external neurostimulator (ENS) that you will control with a remote. The ENS acts as a battery to give power to the lead(s) during the trial period. The ENS causes electrical impulses that go to your spinal cord.
- You will be given a specific remote to use during your trial period. This remote will allow you to control your own stimulation (current) from home. A member of your pain team will teach you how to use the remote. The remote lets you control how strong and fast you want the impulses (tingling) to be.
- An X-ray is done the last day of your trial period.
- This trial period will help you and your pain team decide if spinal cord stimulation is right for you. Together you will decide if you are comfortable with the new sensation (tingling or no tingling) and if spinal cord stimulation will help control your pain.

- The temporary lead(s) will be removed after 7 to 10 days in the Clinic by a member of the pain team. If the trial period is successful, you will go on to step 3. **Important:** step 3 does not happen until 4 weeks after your trial lead(s) is removed. This allows your body time to heal and lower any risk of infection.

At home

- The neuromodulation nurses will connect with you during the trial period. They will help guide, educate, and support you over the week. If needed, they may ask you to return to the Clinic to make changes to your stimulation.
 - › Hours: 8 a.m. to 4 p.m., Monday to Friday
 - › Phone: 902-473-7809
- You may feel some discomfort in the area of the lead(s).
- Keep taking your usual medication(s).
- Leave your dressing in place for 48 hours (2 days). After 2 days, ask a family member to remove the dressing to check the incision. Contact your primary health care provider if there is any redness, drainage, or smell from the incision. Place a new dressing over the incision. The recovery room will give you dressings to take home with you.

- Do not shower until your next neurosurgeon visit.
- You may have a sponge bath. **Do not get your dressings wet.**

Things to watch for

- › Redness at the incision
- › Fever
- › Bleeding or clear, colourless drainage from your incision

You may feel a change in sensation if you move suddenly or change positions.

When do I call my primary health care provider?

If you are bleeding:

- › Place your hand over the dressing and press firmly.
- › Rest quietly until the bleeding stops. Change the dressing as needed.
- › Call your primary health care provider if the bleeding does not stop within a few minutes.

In case of severe (really bad) bleeding, call 911 or go to the nearest Emergency Department right away.

Call your primary health care provider as soon as possible, if you have any of these signs of infection:

- › Fever (38° C/100.4° F) or chills
- › More swelling, redness, or warmth around the incisions
- › More drainage from the incisions
- › Bad smell from the incisions
- › New numbness or tingling in your arms and/or legs
- › Any new incontinence (you cannot control the flow of your pee)
- › You are not able to pee but feel the urge
- › New pain that is not helped by the pain pills you are taking

After the 7 to 10 day trial period

- After the trial period is over, the temporary lead(s) will be removed in the Neurosurgery Clinic, by a member of the pain team.
- If the trial period works to lessen your pain and improve your daily activities, you may go onto step 3.
- Together with your pain team, you will decide whether step 3 is right for you.

- We will ask you to keep a journal of your daily activities during the trial period. The journal will let your health care team know how successful the trial was and to evaluate any goals for that week.

Step 3. Permanent implantation of a spinal cord stimulator

- If you and your pain team are satisfied with the results of the trial period, you will be placed on a waitlist to have a permanent spinal cord stimulator implanted.
- You will **not** be scheduled for permanent implantation for at least 4 weeks after your trial period (after the temporary trial lead(s) and ENS has been removed). This gives your body time to heal and lowers the risk of infection.
- On the day of your surgery, you will be admitted to the hospital for an overnight stay. This surgery can be done while you are awake (local anesthetic) or asleep (general anesthesia). You will have to sign a new consent form for this surgery.
- You will be taken to the OR, where the anesthesiologist will place an IV needle in your arm. They will give you medication through the needle to make you comfortable.

- The neurosurgeon will make 2 to 3 incisions (cuts). The lead(s) will be placed under the skin in your back and connected to a spinal cord stimulator (battery). The spinal cord stimulator will be placed in a pocket under the skin in your upper buttock (bum).

After surgery

- You will be admitted to the Neurosurgery Nursing Unit (7.3) overnight. The nurses will check your temperature, blood pressure, pulse, and dressings every 4 hours.
- Tell the nurses if you have any pain, spasms, numbness or tingling in your arms and/or legs, clear fluid leaking from your incisions (cuts), or any new incontinence.
- The neuromodulation nurses will meet with you the day after your surgery. They will turn on your stimulation. They will set up your new spinal cord stimulator and teach you about your remote and settings.

At home

- You may feel some discomfort in your back and around the spinal cord stimulator. This is normal— it may last for several weeks.
- You can use an ice pack for up to 24 hours (1 day) after your surgery to help lower any swelling and pain around the incisions. Use ice for up to 20 minutes on and 20 minutes off.
- Keep taking your usual medication(s).
- For the first 6 weeks after your permanent spinal cord stimulator surgery:
 - › **Do not do any heavy lifting.**
 - › **Do not bend and twist, as strenuous (hard) activity could move or break the lead(s).**
- The neuromodulation nurses will continue to connect with you after your surgery. They will provide support and teach you about your stimulator. They will also make changes to your stimulator, if needed.

- **Do not drive with your spinal cord stimulator turned on.**
- **Turn off the stimulator while you are driving.**

Things to watch for:

- › Redness at the incision
 - › Fever
 - › Bleeding or clear, colourless drainage from your incision
- You will be given a temporary ID card that has important information about your stimulator. After 6 weeks, you will get a laminated card in the mail from the stimulator company. **Carry it with you always.**
 - You will get an appointment to see your neurosurgeon in the Neurosurgery Clinic 6 weeks after your surgery.

Call your primary health care provider as soon as possible if you have any of these signs of infection:

- › Fever (38° C/100.4° F) or chills
- › More swelling, redness, or warmth around the incisions
- › Drainage from the incisions gets worse
- › Bad smell from the incisions
- › New numbness or tingling in your arms and/or legs
- › Any new incontinence
- › You are not able to pee but feel the urge
- › New pain that is not helped by the pain pills you are prescribed

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Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

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The information in this pamphlet is to be updated every 3 years or as needed.