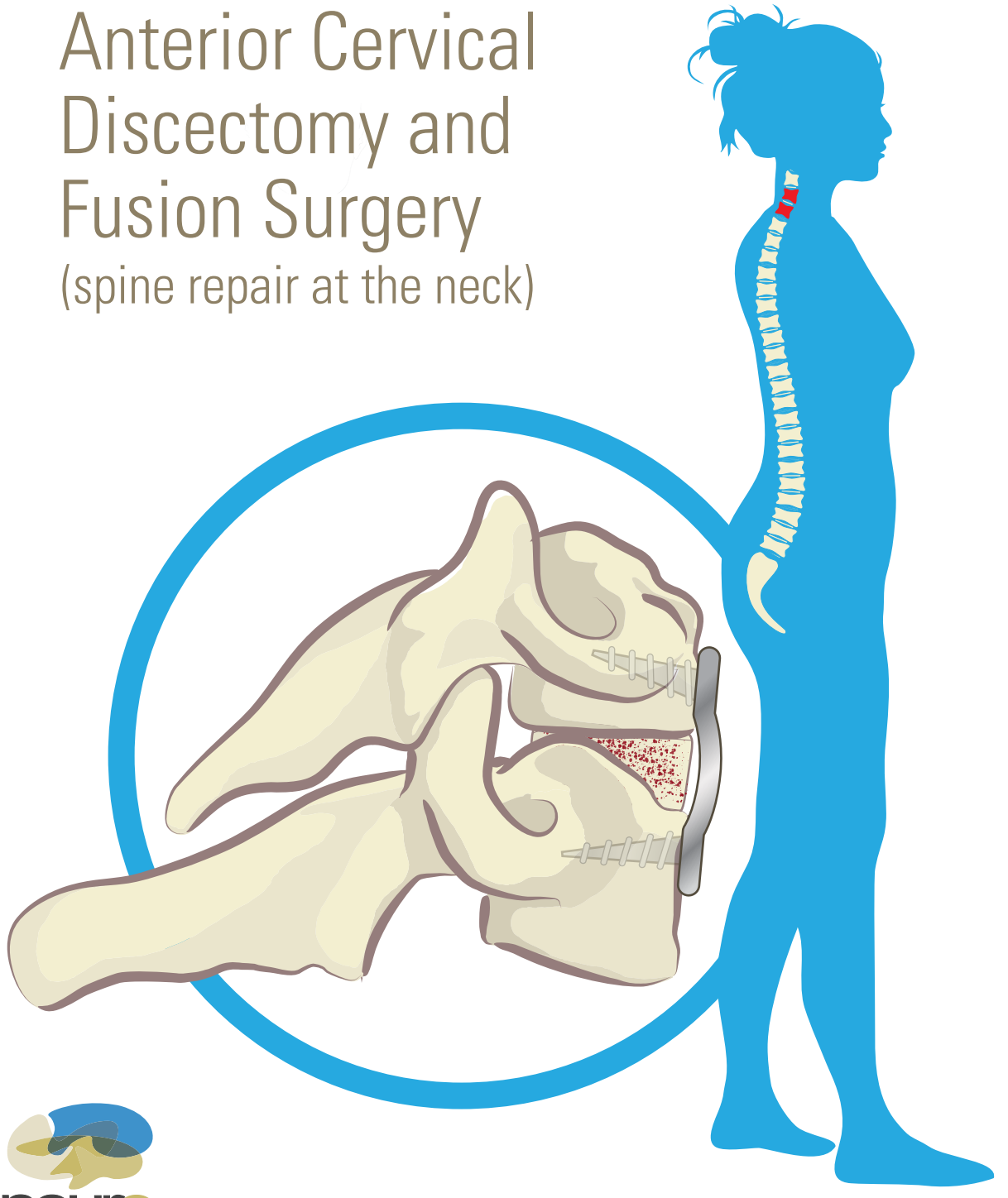
Anterior Cervical Discectomy and Fusion Surgery

(spine repair at the neck)



neuro

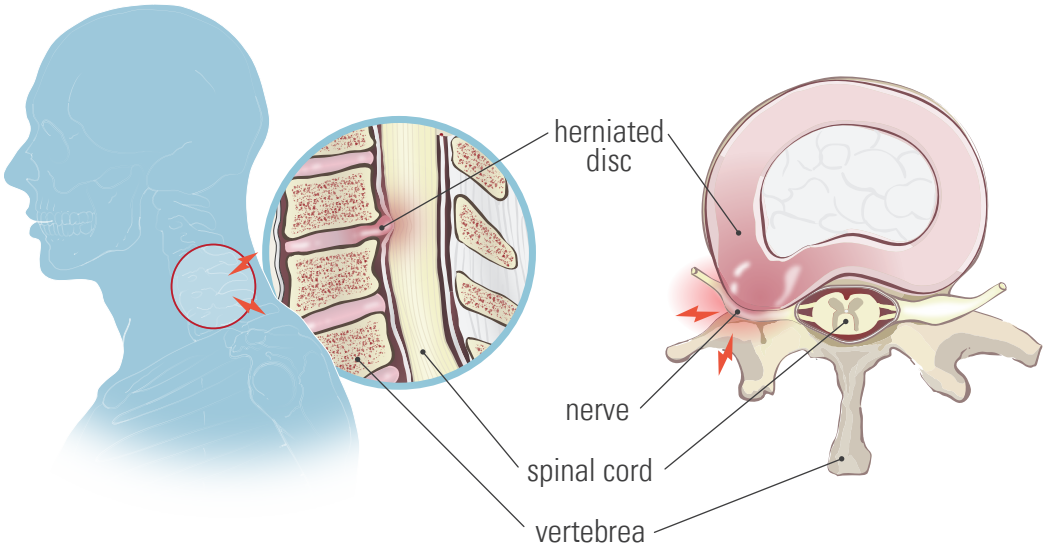
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Why do I need this surgery?

You are having this surgery to remove pressure from your spinal cord or nerves at the level of your neck (cervical spine). This pressure can be caused by a disc in your spine that has moved out of its normal position (herniated disc) or that has worn down. The pressure can also be caused by changes in the bones in your spine (vertebrae bones) or by a thickening of the ligaments that supports your spinal column.



Symptoms of pressure on your main spinal cord are:

- Loss of some of your ability to use your fingers (i.e. unable to button a shirt) and numbness in your hands
- Poor balance and weakness in your legs (i.e. having to hold a railing to go up stairs)
- Changes with your bladder (urine) or bowel (stool) function

Symptoms of pressure on the nerves that branch off from the spinal cord to your muscles are:

- Numbness, tingling, or pain down your arms
- Weakness in some muscles of your arms

What is the surgery?

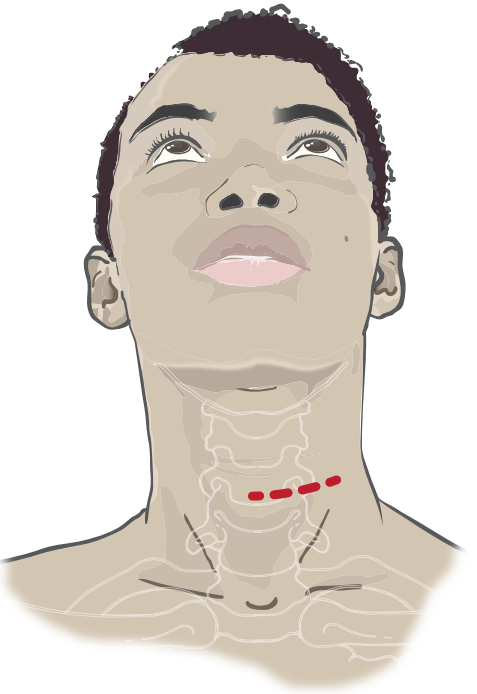
The surgery is called an "Anterior Cervical Discectomy and Fusion" or **ACDF:**

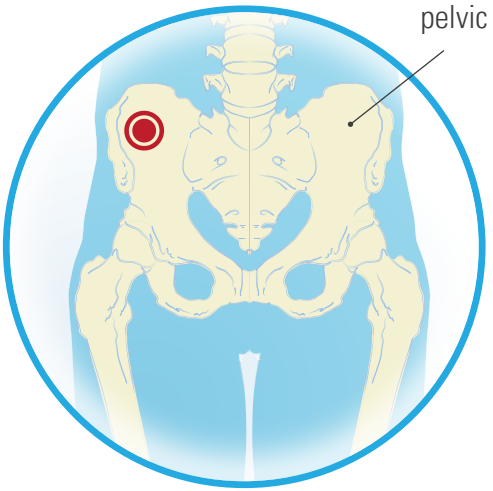
A = Anterior: This means the surgery is done through an incision (cut) made at the front of your neck. The cut is horizontal and about 3-5cm long. The surgeon moves aside some neck muscles, your throat and wind pipe to reach your spine.

C = Cervical: This is the name of the part of your spine that is at the height of your neck.

D= Discectomy: This is the step where the damaged disc is removed from between the vertebrae bones in your spinal column (see image on **page 6**)

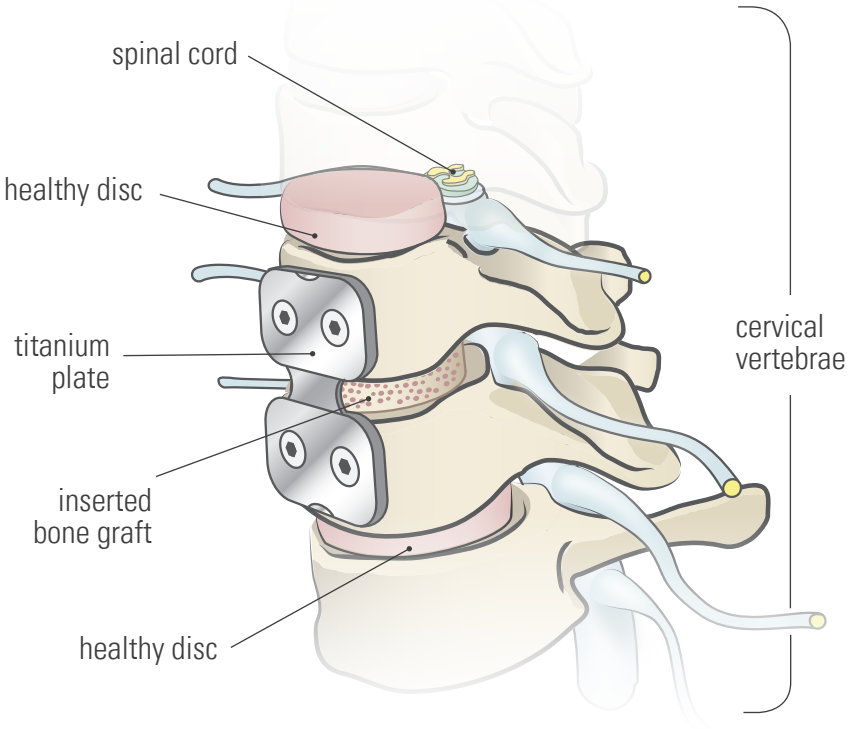
F= Fusion: This step is where the disc is replaced to keep your vertebrae bones from rubbing against each other and to make sure they are held together permanently.





The disc can be replaced with different types of material:

- A bone graft from your own body (Autograft) - The piece of bone is usually taken from your pelvic bone.
- A bone graft from a donor bank (Allograft)
- Man made material



This decision about what material to use to replace your disc will be made with your surgeon. In general, when ACDF surgery is done on just one or two disc levels, it heals (fuses) well.

If you are a smoker or are taking steroid medication then your healing can be more difficult. In this case, your surgeon may suggest an autograft (from your own body) using bone from your pelvis. This type of graft can improve the fusion but means that you need two cuts, one on your neck and one over your pelvic bone. The cut on your pelvic bone can hurt more than the one on your neck.

In addition to the material used to replace your disc, a metal plate will be placed along your vertebrae bones to help keep the area straight as the bones knit together and heal. This metal plate stays in your body permanently. The metal used is titanium which is not magnetic so it will not cause problems when you go through airport security or need to have a Magnetic Resonance Image (MRI).

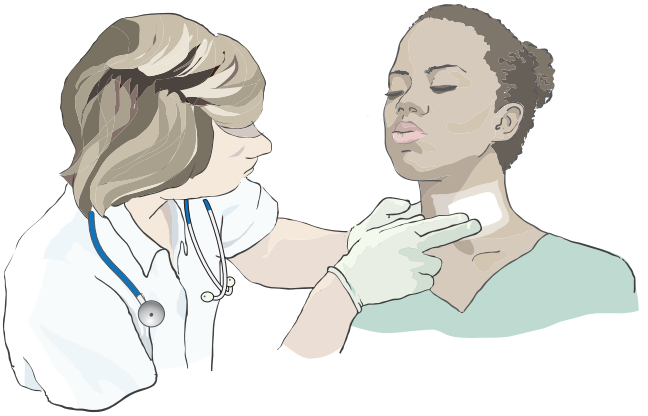
What to expect during my hospital stay

It is possible that you may return home on the same day as your surgery or you may spend up to 2 more days in hospital. The hospital stay depends on how long your surgeon feels you need to stay and your own health. If you have severe arm or leg weakness, you may need some rehabilitation therapy with an occupational therapist or physiotherapist while you are in the hospital.



During your hospital stay the care team will help you recover from the surgery by:

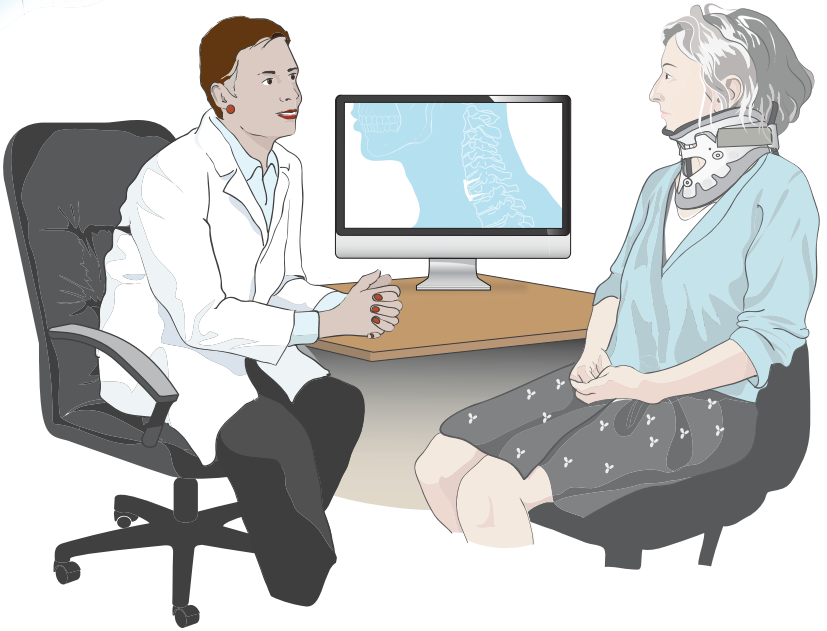
- Checking your bandages and the area of your surgery for signs of an infection and to make sure your cut is healing well



- Helping you control your pain from the surgery by giving you medications through an intravenous (i.v.) or by mouth
- Helping you get up out of bed, start walking and preparing you to return to your normal daily activities
- Checking that you are able to start eating and going to the bathroom normally
- Giving you information to get you ready to return home



You may have a sore throat after the surgery and your voice might be hoarse. It may be hard or painful to swallow. If you have had a bone graft taken from your pelvic bone, you may have pain there as well as at your neck. These problems can last for several weeks after the surgery but will get better with time.



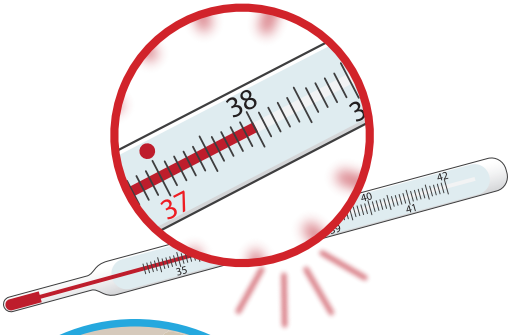
It is important that your pain is kept as low as possible after the surgery. You will start to sleep better, move around more easily and have a better appetite. Tell the nurse or doctor if the medication is helping with your pain or not. Your pain will be easier to manage if it is treated early and regularly.

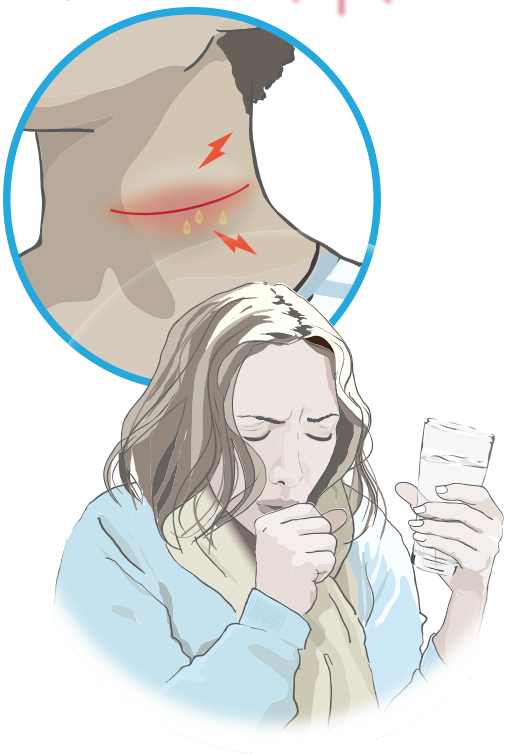
Make sure that you are clear on the instructions from your care team before leaving the hospital and that your questions are answered. If you do not understand a word or explanation, you can always ask that it be explained in plain language.

Returning Home

When you are ready to leave the hospital, the care team will provide you with prescriptions for medication you will continue taking at home. You will also be given an appointment to see your surgeon 4-8 weeks after the surgery. Use this guide for information about what to do and not do in the next 8 weeks.







Warning signs that you might have a problem:

- If your pain increases or is not helped by your pain medications.
- If you have a fever higher than 38°C or 100° F.
- If you have warmth, swelling or redness around the area of your surgery or if you see liquid draining from it.
- If you see any small openings along the cut.
- If you always cough when you are drinking or eating, or feel like food is getting stuck.

Call your surgeon's office:

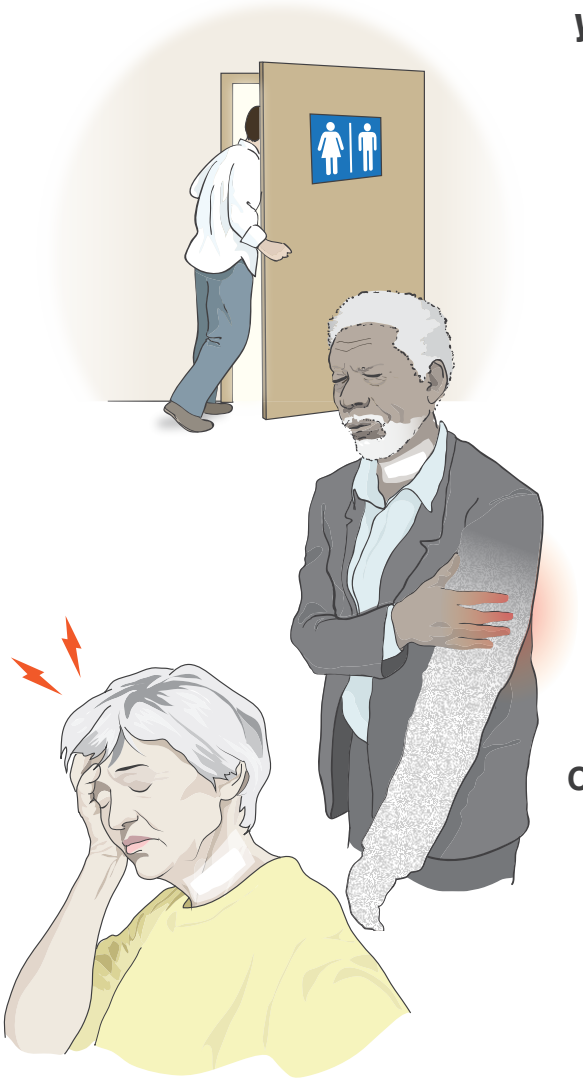
Dr. Goulet, Dr. Santaguida and Dr. Sirhan:
(514) 398-5146

Dr. Maleki and Dr. Marcoux:
(514) 934-8061

Other: .....



Warning signs



you might have a serious problem:

- If you are having trouble breathing
- If you see a big opening along the cut
- If you have problems controlling your urine or bowel movements.
- If you have sudden weakness or numbness in your arms or legs.
- If you have a headache that does not go away

Call your surgeon's office:

Dr. Goulet, Dr. Santaguida and Dr. Sirhan:
(514) 398-5146

Dr. Maleki and Dr. Marcoux:
(514) 934-8061

Other: .....

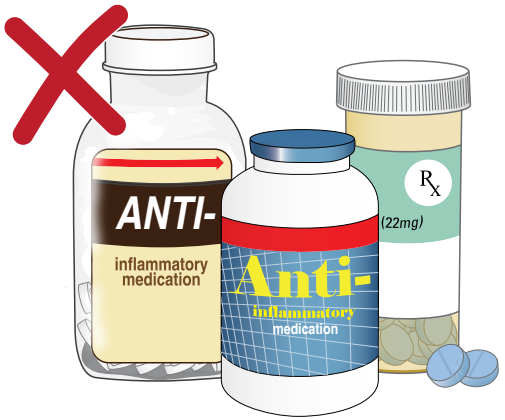


If you are unable to reach your surgeon, go to the Emergency Room of the Montreal General Hospital. If you live outside of Montreal, go to the nearest Emergency Room.

Caring for your cut (incision) after surgery

- If the cut looks well closed and there is no liquid draining from it 4 days after surgery, you may take the bandage off.
- Your cut may look pink, bumpy and dry. It will still be sensitive.
- If you have tape (steri-strips) under the bandage that goes across the cut, don't wet the cut or the tape until your surgeon tells you it is o.k. (usually after 10 days)
- If you do not have tape under the bandage you may gently wet the cut area in the shower or bath but do not rub your cut when washing until it is fully healed (about 10 days after surgery).

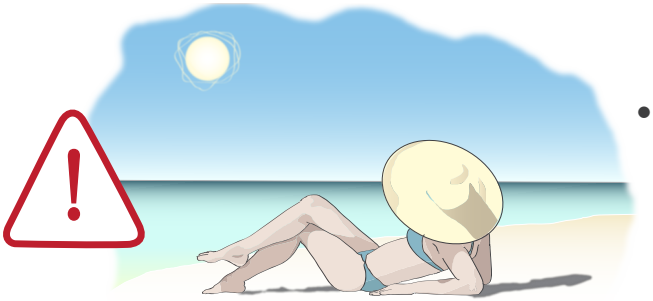




- Do not take any anti-inflammatory medications such as Advil®, Motrin®, Aspirin®, Naproxen®, Celebrex® or Aleve® for at least 4 months after surgery. These medications can slow down the healing of your bones so check with your surgeon when it is safe to take them again.

Do ***NOT*** wet your cut in pools and hot tubs for 4 weeks after surgery.





- Be careful of exposing your healing cut to the sun. Too much sun exposure can cause changes in the color of your skin in that area.

- Do not smoke for at least 4 months after your surgery. Smoking can slow the healing of your bones and can increase your chances of getting an infection.



The hospital may contact your local CLSC to remove your stitches or staples 7-10 days after your surgery. If your stitches are absorbable and hidden under the skin, there will be no stitches to remove.

Pain Management

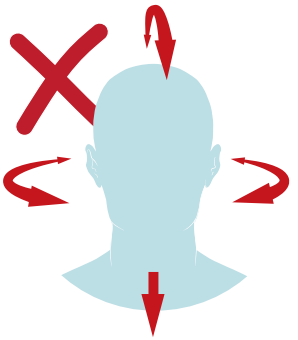
When you leave the hospital, you will be given a prescription for pain medications that you should continue as the doctor (or surgeon) has ordered.



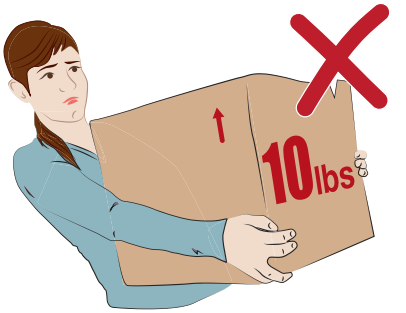
Moving around when you get home

What NOT to do:

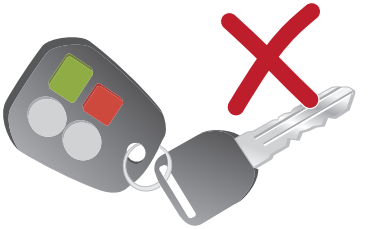
These are activities you must not do for 6 to 12 weeks after surgery. Your surgeon will decide exactly how long you need to avoid these activities:



- Do ***NOT*** bend your head too far forward or backward and don't twist your head. You will need to turn your upper body at the waist instead. If you make a move that hurts, stop. If it continues to hurt even after stopping the movement and does not go away with rest, call your surgeon's office.

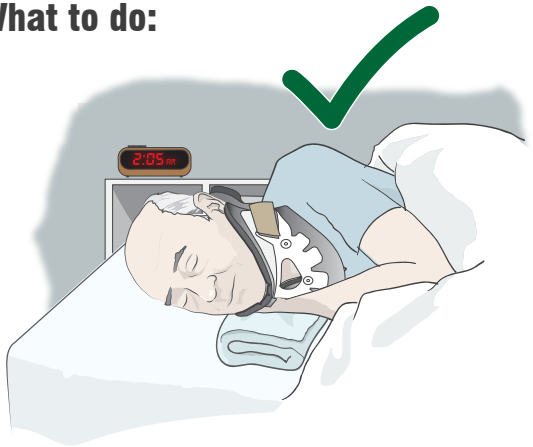


- Do ***NOT*** lift anything heavier than 4.5 kilograms (10 pounds).



- Do ***NOT*** drive until your surgeon says it is o.k.

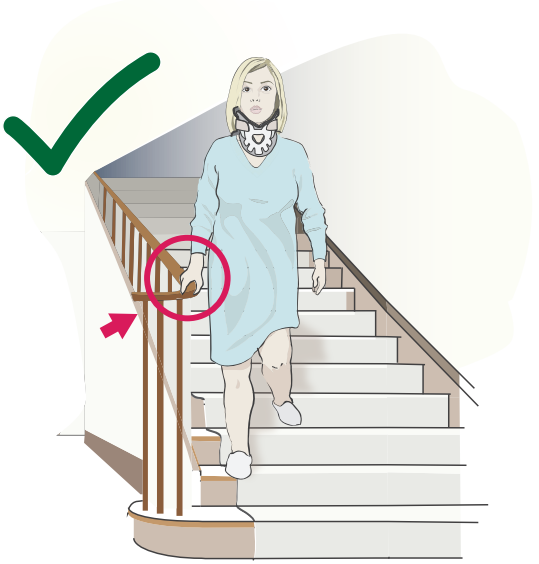
What to do:



- Sleep with a small flat pillow or a rolled towel under your neck so that it is supported but not bent too much. This is better than a big pillow which can put too much pressure on your neck or cause your neck to be bent too much. You are allowed to sleep on your back or on your side.

- When you are sitting, choose a chair with armrests or use a pillow to support your arms to avoid pulling on your neck muscles. You may find chairs with a tall back or with a head rest are comfortable as they support your neck more.





- When you are walking, be careful when you are going down stairs. Hold onto a railing as you will not be able to bend your head forward to easily see the next step.

- Walk often. Go for at least one walk a day to help with your recovery. Start with short distances (less than 20 minutes). You can increase the distances as you feel able.

Self-care

Please read the section above about Caring for your Cut (incision) after Surgery. If your surgeon has decided that you need to wear a Neck Support collar, you will find information about this at the end of this guide (Appendix 1: Use and Care of Your Neck Support Collar). Not everyone needs to wear a collar.



If you are finding it hard to lift your arms because of pain or weakness, wear tops that have buttons or a zipper instead of lifting your arms up to pull a t-shirt on over your head.

If you are having a lot of numbness and trouble with small movements of your fingers, fastening buttons might be hard, so try to find pull-over shirts that have a large neck opening (i.e. V-neck). You may need help from a family member to put on a shirt at the start.

If you have facial hair, it is important to shave regularly. Remember to not move your neck too much while shaving.





Bending forward can be difficult because of the pressure that this puts on your neck. It is easier to sit down to put on your pants and shoes. Bring your legs towards your body or cross one leg over the knee of the other leg in order to avoid bending.

Not being able to do all your normal activities can be difficult. It takes time to get better and get your energy back. If you find that your mood is low and is not helped by talking with friends and family or by doing gentle activities that you enjoy, please speak with your family doctor or surgeon about support.

Nutrition



At the start after your surgery it will be more comfortable to eat soft foods such as pasta, cooked vegetables and mashed potatoes. When you drink, you might find a straw is helpful so that you don't have to tilt your head.

Drink plenty of liquid (about 8 glasses a day).

Eat foods that are rich in protein after your surgery to help your body heal. Examples of protein rich food are: meat, beans and nuts, cheese, yoghurt, eggs and milk.

To help avoid constipation, eat foods rich in fiber such as cereals, fresh fruit and vegetables.



Housekeeping and Groceries

You can do light activity in the house like preparing small meals to help build up your strength and energy. When you are carrying light objects like a cup or plate, remember to hold them close to your body or with two hands to avoid straining your upper arms and neck.



Do not carry heavy objects

such as groceries or anything over 10 pounds (4.5 kilograms). Use a delivery service for your groceries or ask a family member or friend to help you.

For heavier housework such as vacuuming or cooking a big meal, you will need to ask for help from family or friends. Do not do any repetitive movements with your shoulder like vacuuming, cutting grass or shoveling snow.

If you have pets, you will need help for walking your dog during the recovery period. This is because, if the dog pulls on the leash, it can hurt your neck and damage the area of surgery.

Your local CLSC can provide a list of private agencies that offer housekeeping and meal preparation but there will be a fee for these services.

Driving



Do not drive as long as you have limited range of motion from neck pain or if you have to wear a collar. Your surgeon will determine when you can drive again. Try to organize rides in advance of your surgery, whether it is for getting to an appointment or getting family members to an activity.

Riding in a car

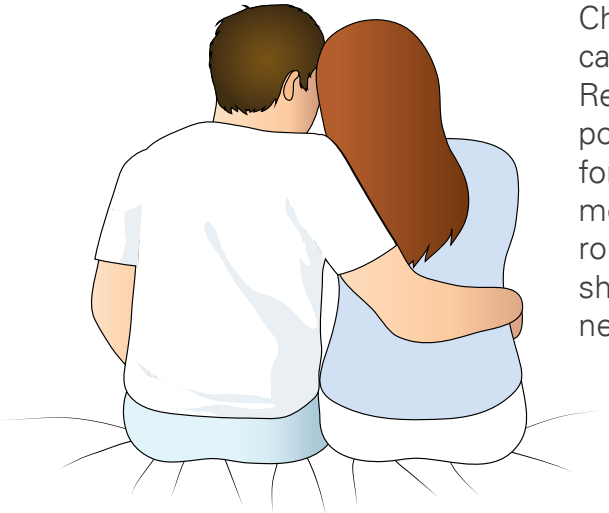
Try not to be a passenger in a vehicle as much as possible for the first 2 weeks after surgery. Unexpected movements could hurt the area of your surgery. After 2 weeks, start with short distances and don't spend more than 30 minutes in the car at one time.



Fitness exercises

When you meet with your surgeon 4-8 weeks after surgery, you can discuss if you need to start a specific fitness or physiotherapy program. Most people do not need physiotherapy. It depends on how the first part of your recovery after surgery has gone and if you need to wear a neck support collar.





Sexual activity

Check with your surgeon when you can safely restart sexual activity. Remember that you should be in a position that provides good support for your neck and avoid too much movement – take a more passive role. If you have pain in your neck or shoulders, stop and wait until your neck has healed more.

Follow-Up

Between 4-8 weeks after your surgery you will meet with your surgeon to see how you are recovering. They will be able to give you advice on what activities you can restart and when you may be able to return to work.



Questions to ask your doctor (surgeon):

- ☐ When can I start sexual activity? .....
- ☐ When can I start to drive? .....
- ☐ When can I return to work? .....
- ☐ When can I start doing my favourite sport/exercise? .....
- ☐ Other: .....

.....

Appendix 1: Use and Care of Your Neck Support Collar (Cervical Collar)

The decision about if you need a collar and what type of collar to use will be made with your surgeon. Not all patients need to wear a collar.

There are two types of cervical collars that may be worn after surgery if your surgeon decides it is necessary: 1) an Aspen collar, or 2) a Philadelphia collar.

You should get your collar before the day of surgery either at the Pre-Admission clinic or with the prescription provided by your surgeon. Practice wearing the collar at home to walk around, climb stairs and sleep.

Aspen Collar

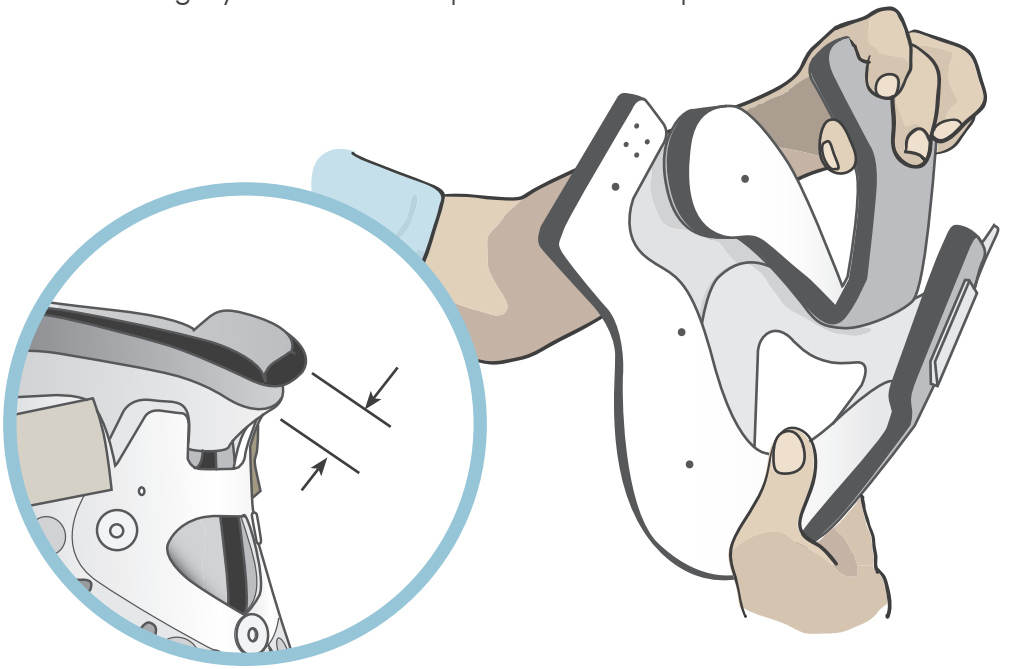
When to wear it:

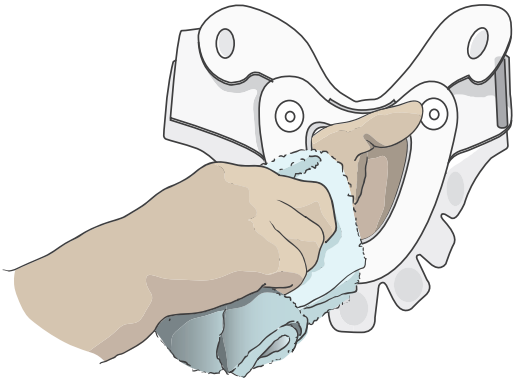
Wear this collar all the time even when you are sleeping and when you take a shower. This collar has Velcro pads that attach to a plastic base. You will be given an extra set of pads. After the shower, remove the collar, dry the plastic part of the collar with a towel both inside and out, and change the pads for dry ones. While you are doing this, do not move your neck from side to side or up and down. Also, wash you neck two times a day with the collar off so that your skin does not become irritated (see **page 26**).



How to wear it:

The pads should always be placed so that they show beyond the edge of the plastic collar. Place the white surface of the pad towards your skin and the grey surface of the pad against the plastic. The collar comes with instructions. Practice changing the pads of the collar before your surgery so that you are familiar with the steps.





How to clean it:

Change the pads at least every 2 days or when dirty. Wash the pads by hand with soap then rinse and let them air dry. Do not place the pads in a washing machine or clothes dryer. You can wipe the plastic and straps with warm soapy water and use a towel to dry.

How to change it:

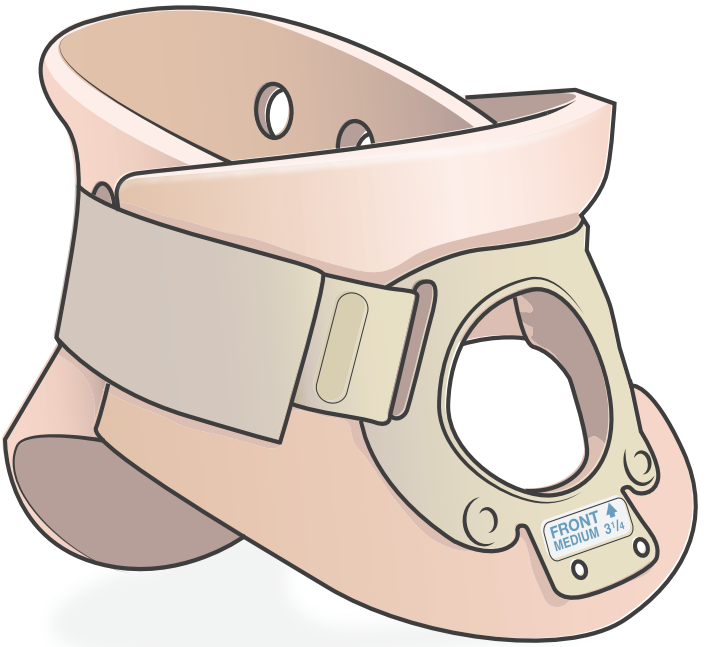
Have someone help you change your collar at first until you are comfortable doing it on your own. After the surgery, the occupational therapist will make sure that you are doing this correctly.



Philadelphia collar

When to wear it:

Wear this collar all the time even when you are sleeping and when you take a shower. You will be given two collars so that you can change your collar after you shower. For example: you can wear one collar all day, sleep with it and the next day take your shower with it on. You should shower every day. After the shower, remove the wet collar and put on the dry one. Once the new collar is secured, take a wash cloth to clean the collar that you have removed and then let it dry on a towel. Now it will be ready to put on after your shower the next day.

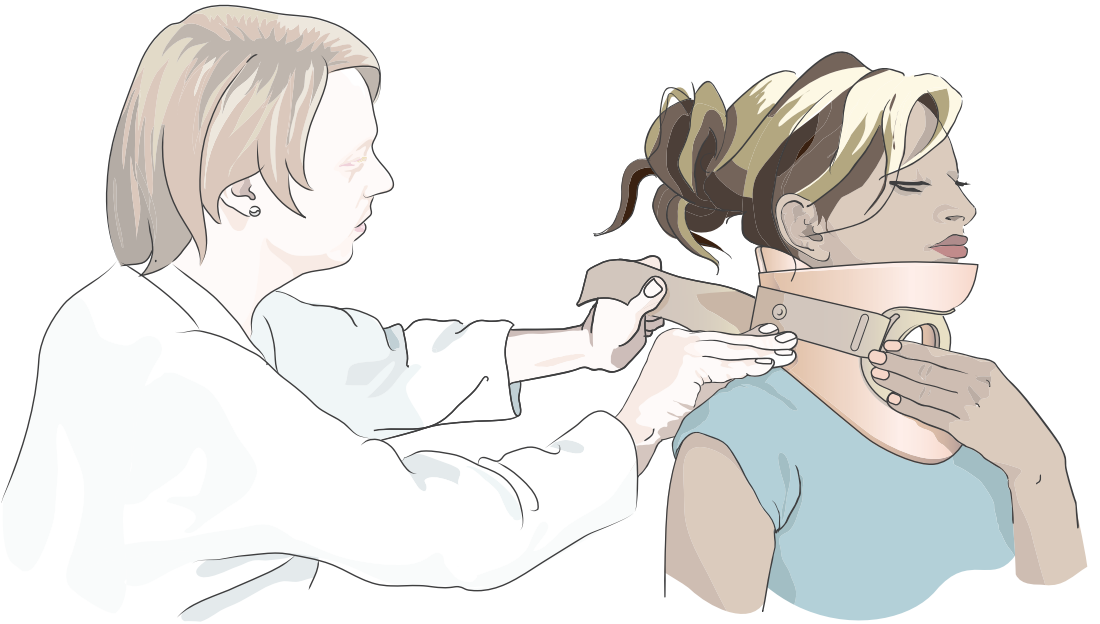


How to clean it:

The collar and liner can be cleaned with a facecloth and warm soapy water. Make sure it dries fully before you wear it.

How to wear it:

Place the back piece first. It should be sitting comfortably under your ears and equal on both sides. While holding the back piece, place the front part of the collar so that it is sitting under your chin and resting on your chest. Make sure the front of the collar lines up with the edges of the back piece. Now secure it with the Velcro straps from the back.

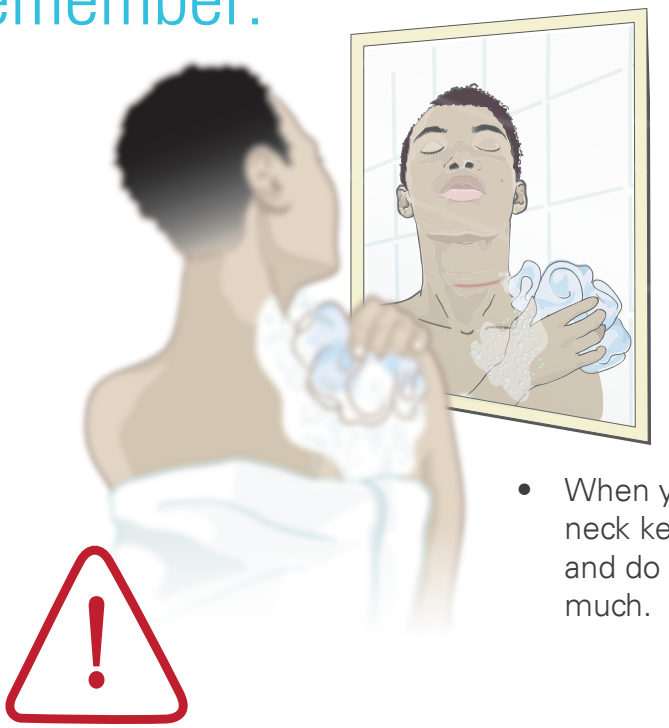


How to change it:

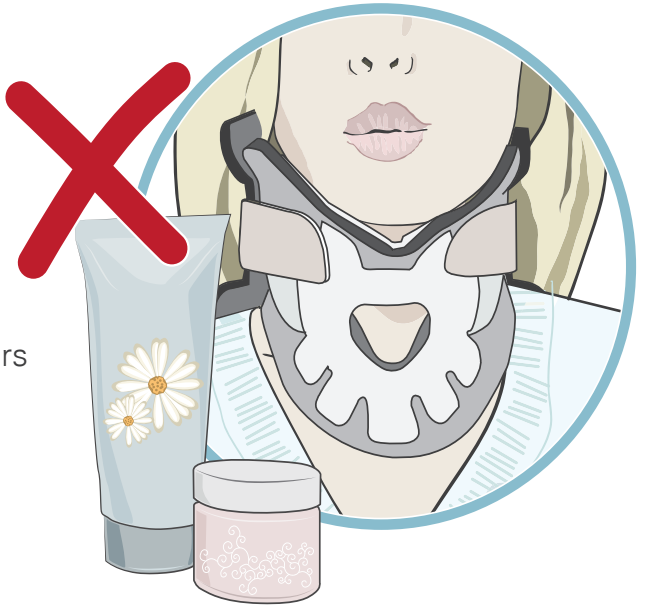
At the start it is useful to have someone to help you change your collar until you become comfortable doing it on your own. When you receive your collars in the pre-admission clinic, you can practice putting it on and taking it off even before the surgery. If your fingertips are numb, this might be difficult, so you may need help. After the surgery, the occupational therapist will make sure that you are doing this correctly.

In the first 4 days, do not get the area of your surgery wet. After 10 days you should clean your neck two times a day to help keep your skin healthy.

Remember:



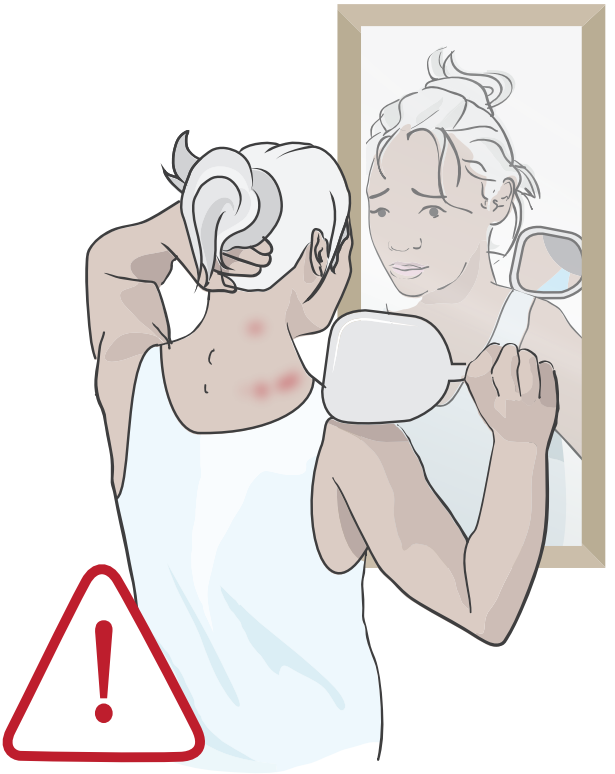
- When you are cleaning your neck keep your head straight and do not scrub your neck too much.



- Do not use creams or powders on the skin under the collar.

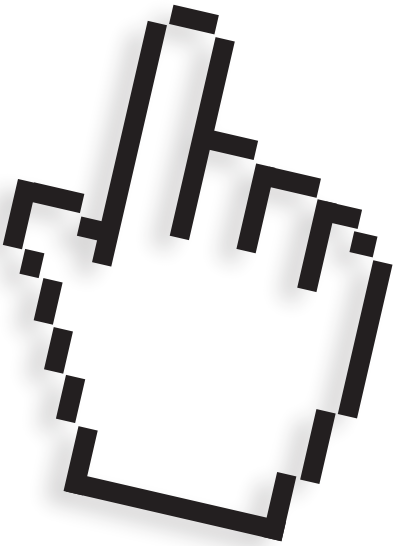
- Dry your neck and the collar well before putting the collar back on.





- Look in a mirror when changing your collar to see if there are any areas of redness on your skin or broken skin where you place your collar. Check the areas where the collar rests under your chin, under your ears, the back of your neck and your chest and shoulders.
    - If you notice signs of redness or broken skin, wash your neck and change the inserts or pads more often each day. If the problem continues, call your surgeon's office. Your collar may need some adjusting.

Resources



Neuro Patient Resource Centre

room 354
Health Information for patients and families: 514-398-5358

The Centre is available to help you and your family find further information concerning your surgery, and other related health topics. Also you and your family members can get access to the hospital wireless network, use one of our computers, print, fax photocopy and find out about community resources. Feel free to drop in to the Centre anytime. You may visit the Centre while in hospital. You may find it helpfut to visit their website after you go home at:

www.infoneuro.mcgill.ca

References:

- A Guide to your Back Surgery, MUHC Patient Education Office 2014
- After Lower Back Surgery: A guide, Neuro-Patient Resource Centre 2006
- Cervical Collar Pamphlet-MNH Occupational Therapy
- Cervical Collar Patient Handbook, Aspen Medical Products
- Patient Education for ACDF, Mayfield Clinic and Spine Institute
- Philadelphia Collar Management at Home, Melbourne Health Trauma Program

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IMPORTANT: PLEASE READ

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