

# Your Guide to Spine Surgery







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## General Information

# 1



# Welcome to the Comprehensive Spine Surgery Program

Learning as much as you can about your spine and your spinal procedure in the days before your surgery will help you play an active role in your recovery. Our BayCare health care professionals have developed this guide to give you increased knowledge and understanding of spine health. This information will help prepare you for surgery and guide you through recovery. Please read the entire guide before arriving for surgery. **Bring this guide with you when you come to the hospital for your spinal procedure.** It can be reviewed with your physicians, nurses, physical therapists, hospital care coordinators, social service and occupational therapists. Ask them any questions you may have. Our team will address your concerns, guide you through the surgery and help you and your family create a recovery plan.

*This guide has been prepared only for your information. It shouldn't be considered a substitute for medical advice.*

## Tobacco-Free Campus

To promote a healthy lifestyle, BayCare hospitals are tobacco-free campuses. There are no designated smoking areas. Studies have shown smoking has a negative impact on bone health, including healing after spinal fusion surgery. If you smoke, please consider stopping before your surgery. If you need a nicotine patch for your stay, let your physician know and one will be ordered.

In addition to talking to your physician about options, free stop-smoking resources include:

- Florida Department of Health Quit Line:  
(877) 822-6669 | [QuitNow.net/Florida](https://www.QuitNow.net/Florida)
- Freedom from Smoking® Online American Lung Association:  
[FFSOnline.org](https://www.FFSOnline.org)
- Florida Area Health Education Centers: (877) 848-6696
- [AHECTobacco.com](https://www.AHECTobacco.com)
- [SmokeFree.gov](https://www.SmokeFree.gov)



# Meet Your Spine Team

At the hospital, your spine surgeon is supported by a strong and talented team. They'll help you prepare for surgery, make your hospital stay as comfortable as it can be and help you recover as quickly as possible. Members of your team include:

## **Internal Medicine Specialist/Hospitalist (Physician)**

A physician may follow your care and manage your current medical conditions during your hospital stay.

## **Nurses**

A **licensed nurse** will coordinate your activities while you're in the hospital. The nurse will take charge of your personal care, pain management and discharge planning, and they'll help you learn how to move your body after surgery. A Nurse Navigator, who's a registered nurse, will help coordinate your care and guide you and your family during your hospital stay to ensure a positive experience.

## **Patient Care Technician (PCT)**

The PCT works under the direction of the nurse. They take your vital signs and assist you with activities such as bathing or getting to the bathroom.

## **Physical therapists**

Physical therapists develop an exercise program specifically designed to strengthen your new spine and the muscles surrounding it. They'll teach you how to safely use a walker, if needed.

## **Occupational Therapists**

After surgery, you may find daily tasks have become difficult. Getting in and out of bed, dressing yourself, showering and washing the dishes may all seem challenging in the days immediately following your surgery. An occupational therapist may be asked to teach you simple techniques to make activities of daily living easier.

## **Hospital Care Coordinators/Social Service Specialists**

Hospital care coordinators and/or social service specialists help you plan your release from the hospital, especially if you'll need home health assistance or rehabilitation placement. They'll communicate with your family and friends to identify the support that they can provide after your surgery. They'll provide information about available community resources and can help with questions about your insurance benefits. While staying in the hospital, you may also meet other health care professionals, including home health, dietary and respiratory care team members.







A woman with white hair is looking at a model of a human spine. The model is white with yellow intervertebral discs. A person's hands are visible, holding the model. The woman is wearing a light pink top. In the background, there is a blurred image of a spine and a small model of a spine.

## Meet Your Spine | 2



# The Normal Spine

Your spine is one of the most important parts of your body. It gives your body structure and support. It allows you to move freely and bend with flexibility. The spine is also designed to protect your spinal cord. The spinal cord is a column of nerves that connects your brain to the rest of your body, allowing you to control your movements. Without a spinal cord, you couldn't move any part of your body and your organs couldn't function.

## Anatomy

The spine is made up of 24 bones, called vertebrae. Ligaments and muscles connect these bones together to form the spinal column. The spinal column holds and protects the spinal cord, which is a bundle of nerves that sends signals to other parts of the body. The many muscles that connect to the spine help support the upright posture of the spine and move the spine.

### Cervical Spine (Neck)

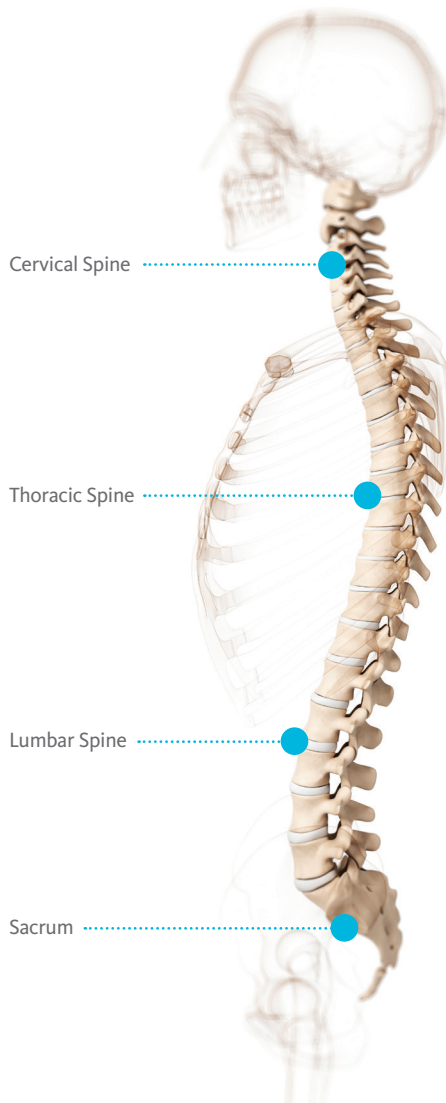
The cervical spine is made up of the first seven vertebrae in the spine. It starts just below the skull and ends just above the thoracic spine. There are special openings in each vertebra in the cervical spine for arteries (*blood vessels that carry blood away from the heart*). The arteries that run through these openings bring blood to the brain.

### Thoracic Spine (Mid Back)

The thoracic spine is made up of the middle 12 vertebrae. These vertebrae connect to your ribs and form part of the back wall of the thorax (*the rib cage area between the neck and the diaphragm*). This part of the spine has very narrow, thin intervertebral discs, which limit the amount of spinal movement in the mid back.

### Lumbar Spine (Low Back)

The lowest part of the spine is called the lumbar spine. This area usually has five vertebrae. However, sometimes people are born with a sixth vertebra in the lumbar region. The base of your spine (*called the sacrum*) is a group of specialized vertebrae that connects the spine to the pelvis. The vertebrae in the lumbar spine area are the largest of the entire spine. The lumbar spinal canal is also larger than in the cervical or thoracic parts of the spine. The size of the lumbar spine allows for more space for nerves to move about.



## Low back pain is a very common complaint for a simple reason.

Since the lumbar spine is connected to your pelvis, this is where most of your weight bearing and body movement takes place. Typically this is where people tend to place too much pressure, such as lifting up a heavy box, twisting to move a heavy load or carrying a heavy object. These activities can cause repetitive injuries that can lead to lumbar spine damage.



# Important Structures of the Spine

## Vertebrae

Your spine is made up of 24 small bones called vertebrae. The vertebrae protect and support the spinal cord. They also bear the majority of the weight put on your spine. The vertebral body is the large, round portion of bone. Each vertebra is attached to a bony ring. When the vertebrae are stacked on top of each other, the rings create a hollow tube for the spinal cord to pass through. The bony ring attached to the vertebral body consists of several parts. The lamina extends from the body to cover the spinal canal, which is the hole in the center of the vertebra. The spinous process is the bony portion opposite the body of the vertebra. You feel this part if you run your hand down a person's back. There are two transverse processes (*little bony bumps*), where the back muscles attach to the vertebrae. The pedicle is a bony projection that connects the lamina to the vertebral body.

## Intervertebral Disc

Between each vertebra is a soft, gel-like cushion, called an intervertebral disc. These flat, round “cushions” act like shock absorbers by helping absorb pressure. The discs prevent the bones from rubbing against each other. The mushy nucleus of the disc serves as the main shock absorber. The nucleus is made up of tissue that's very moist because it has high water content. The water content is what helps the disc act like a shock absorber, similar to a waterbed mattress.

## Facet Joints

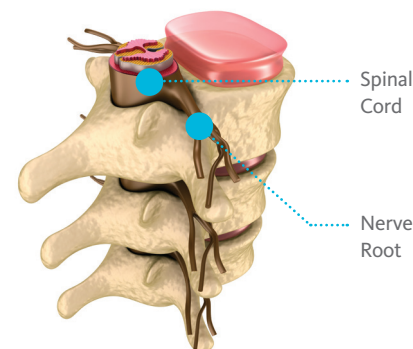
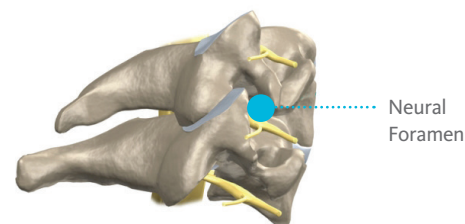
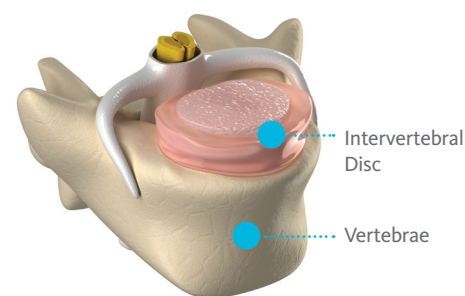
The spinal column has joints (*like the knee, elbow, etc.*) called facet joints. The facet joints link the vertebrae together and give them the flexibility to move against each other. The facets are the “bony knobs” that meet between each vertebra. There are two facet joints between each pair of vertebrae, one on each side. They extend and overlap each other to form a joint between the neighboring vertebra facet joint. The facet joints give the spine its flexibility.

## Neural Foramina

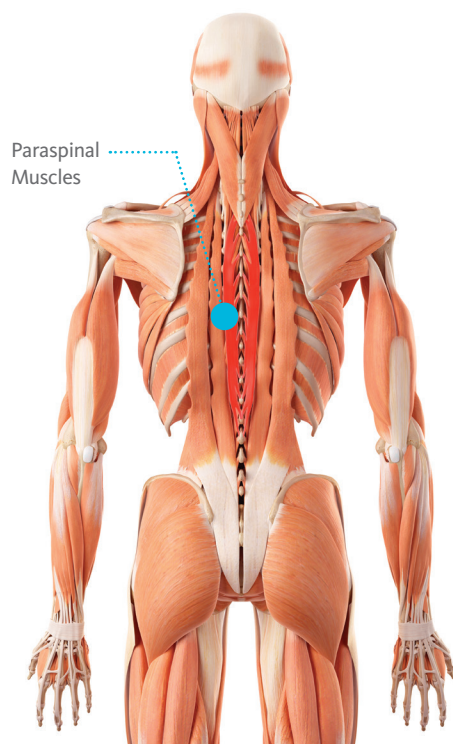
The spinal cord branches off into 31 pairs of nerve roots. The nerve roots exit the spine through small openings on each side of the vertebra called neural foramina. The two nerve roots in each pair go in opposite directions when traveling through the foramina. One goes out the left foramina and the other goes out through the right foramina. The nerve root allows nerve signals to travel to and from your brain to the rest of your body.

## Spinal Cord

The spinal cord is a column of millions of nerve fibers that carries messages from your brain to the rest of your body. It extends from the brain to the area between the end of your first lumbar vertebra and top of your second lumbar vertebra. Each vertebra has a hole in the center, so when they're stacked on top of each other, they form a hollow tube (*spinal canal*) that holds and protects the entire spinal cord and its nerve roots.







### Nerve Roots

The nerve fibers in your spinal cord branch off to form pairs of nerve roots that travel through the small openings between your vertebrae. The nerves in each area of the spinal cord connect to specific parts of your body. This is why damage to the spinal cord can cause paralysis in certain areas and not others; it depends on which spinal nerves are affected. The nerves of the cervical spine go to the upper chest and arms. The nerves of the thoracic spine go to the chest and abdomen. The nerves of the lumbar spine reach the legs, pelvis, bowel and bladder. These nerves coordinate and control all the body's organs and parts, and allow you to control your muscles. Damage to the nerves themselves can cause pain, tingling or numbness in the area where the nerve travels. Without nerve signals, your body wouldn't be able to function.

### Paraspinal Muscles

The muscles next to the spine are called the paraspinal muscles. They support the spine and provide the motor for movement of the spine. Joints allow flexibility and muscles allow mobility. These muscles can be directly injured, such as when you have a pulled muscle or muscle strain. They can also cause problems indirectly, such as when they're in spasm after injury to other parts of the spine. A muscle spasm is experienced when your muscle tightens up and won't relax. When any part of the spine is injured—including a disc, ligament, bone or muscle—the muscles automatically go into spasm to reduce the motion around the area. This mechanism is designed to protect the injured area. When muscles contract, the small blood vessels traveling through the muscles are pinched off (*like a tube pinched between your thumb and finger*).

## Typical Spine Surgeries

### Anterior Cervical Discectomy and Fusion

A procedure that reaches the cervical spine (*neck*) through a small incision in the front of the neck. The intervertebral disc is removed and replaced with a small plug of bone or other graft substitute, that in time will fuse the vertebrae. Screws and a plate are used to secure the bone or graft.

### Cervical Corpectomy

A procedure that removes a portion of the vertebra and adjacent intervertebral discs to allow for decompression of the cervical spinal cord and spinal nerves. A bone graft, and in some cases a metal plate and screws, is used to stabilize the spine.

### Facetectomy

A procedure that removes a part of the facet (*a bony structure in the spinal canal*) to increase the space

### Foraminotomy

A procedure that removes the foramina (*the area where the nerve roots exit the spinal canal*) to increase the size of the nerve pathway. This surgery can be done alone or with laminotomy.

### Laminoplasty

A procedure that reaches the cervical spine (*neck*) from the back of the neck, which is then reconstructed to make more room for the spinal canal.

### Laminotomy

A procedure that involves the formation of a hole in the lamina without disruption of the continuity of the entire lamina to approach the intervertebral disc. This is the most common approach to the herniated disc.

### Microdiscectomy

A procedure that removes a disc through a very small incision using a microscope

### Spinal Laminectomy

A procedure that removes the entire lamina on both sides of and including the spinous process that treats spinal stenosis. It relieves pressure on the spinal cord and creates more space for the spinal nerves. This procedure may be performed at more than one level to approach the spinal cord and nerves for conditions including tumors and herniated discs.

### Spinal Fusion

A procedure for fusing two or more spinal segments with or without removal of an intervertebral disc. The indications are commonly nerve root irritation in the cervical and lumbar spines, and spinal instability, or arthritis at any level. It's often the case that disc surgery (*such as discectomy or laminectomy*) and spinal fusions are performed concurrently for a variety of reasons. Fusions are sometimes performed to provide stability when mechanics have been disturbed by old fractures or by infection. The lumbosacral region is the most common area for back fusions.

### Scoliosis Surgery

A procedure done through a long incision on the back of the spine (*the incision goes the entire length of the thoracic spine*). After making the incision, the muscles are removed from the spine to allow the surgeon access to the bony elements in the spine. The spine is then instrumented (*screws are inserted*) and rods are used to reduce the amount of the curvature. Bone is then added (*either the patient's own bone—taken from patient's hip—or cadaver bone*), inciting a reaction in which the bones in the spine begin fusing together. The bones continue to fuse after surgery is completed. The fusion process usually takes approximately three to six months and can continue for up to 12 months.

### Total Disc Replacement

A procedure that removes a diseased disc and replaces it with an artificial one

### Minimally Invasive Spine Surgery

This is a highly specialized procedure that delivers significant benefits to patients with a variety of conditions including spinal fractures, herniated discs and lumbar spinal stenosis. Minimally invasive spine surgery also offers patients a faster recovery time and less pain.

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If you have any specific questions about your surgery, contact your surgeon.









## Getting Ready for Surgery | 3



## Medical History, Physical Exam

No surgical procedure can take place without knowledge of your overall health. Your surgeon needs to know about your medical history and make sure you're healthy enough to undergo spine surgery. Your primary care physician or your surgeon will examine you to determine your current health status. You'll receive instructions about taking or stopping any medications that you're currently taking before your surgery.

**It's very important that you tell your physician about any medications you may be taking, prescription or over-the-counter.** Aspirin products and anti-inflammatory medications such as ibuprofen (*the active ingredient in Advil and Motrin*), naproxen (*Aleve*), piroxicam (*Feldene*), nabumetone (*Relafen*) and oxaprozin (*Daypro*) might need to be stopped several days before your surgery. This may also be true for diet pills, vitamin E and herbal supplements such as echinacea, ephedra, garlic, ginkgo, ginseng, kava and St. John's Wort.

## Insurance Coverage

Health care benefits are constantly changing. It's important for you to understand your benefits before having surgery. Call your insurance provider to find out exactly what your plan does and doesn't cover. Some medications prescribed after surgery may be costly.

## Advance Directives

Advance directives are forms that detail your choices for health care and treatment, should you become unable to talk to your physicians or make your own health care decisions, because of illness or injury. The best time to prepare an advance directive is while you're able to consider your wishes carefully and can discuss them with your doctor and the people close to you. In Florida, the two main types of advance directives are designation of a health care surrogate and a living will.

**Designation of a health care surrogate allows you to:**

- Choose someone to make medical decisions, based on your wishes, if you're unable to make your own decisions or if you choose not to make them for yourself. That choice must be made in writing.
- Include specific wishes if you have certain medical conditions
- Choose someone who'll honor and follow your wishes.  
You also designate an additional person as a backup.

## Living will

A living will lets you choose the kind of health care you do and don't want if you have any of the conditions below. It only goes into effect if you're no longer able to make decisions or communicate your wishes yourself and are in one of these conditions:

- A terminal or end-stage condition and there's little or no chance of meaningful recovery
- A condition of permanent and irreversible unconsciousness, such as coma or vegetative state
- An irreversible and severe mental or physical illness that prevents you from communicating with others, recognizing family and friends, or caring for yourself in any way

We recommend that all our patients fill out advance directives. For more information on advance directives, copies of our forms, a step-by-step guide to filling them out and more, visit [BayCare.org/AdvanceDirectives](http://BayCare.org/AdvanceDirectives).

Before your procedure, make sure your health care surrogate has copies of your forms and bring a copy of these documents with you to the hospital. These forms will become part of your medical record.

## Discharge Planning

Our goal is to have you go home after your hospital stay. However, there may be times when further rehabilitation is needed. We'll work with you and your family to make arrangements for a safe discharge.

### Home Health Care

Some patients may need help beyond what family and friends can provide. Home health workers can bridge that gap. These may include physical and occupational therapists, home health aides and nurses. Home health workers, if ordered by your physician, help you walk, regain strength and complete daily living tasks. They also monitor your condition and safety.

### Discharge to a Skilled Nursing Facility or Rehabilitation Center

Some patients need more help than home health can provide. They may need skilled nursing care and/or rehabilitation. In a skilled nursing or rehabilitation center, you can continue your rehabilitation before going home. Therapy helps you build strength and endurance, with a goal of returning home as soon as possible.

There are a number of places to choose from for skilled nursing care, if needed. Our hospital care coordinator and/or social service specialists will discuss your options with you.

### Facility Names and Phone Numbers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_







A person wearing a red long-sleeved shirt is seen from the side, looking out from a white balcony railing. In the background, there is a house with a light-colored exterior and a white pergola structure. A large tree with green leaves is partially visible above the pergola. The scene is brightly lit, suggesting daytime.

## Caring for Yourself—Presurgical Preparations

# 4



# Preparing Your Home for Your Return

To make the transition from the hospital or a rehabilitation center to home as safe and pleasant as possible, you may want to rearrange some of the items in your house. Consider the following:

- Move frequently used kitchen, bathroom and bedroom items to tabletops or other easily reached places. It helps if these places are waist level to prevent bending and reaching. This includes things like shoes, clothing, non-perishable food items, medications, toiletries and toilet paper.
- Move low tables away from your couch and your chairs.
- Make sure there are clear pathways leading from your bedroom to your kitchen and from your bedroom to your bathroom. Put away or get rid of clutter around the house.
- Remove and put away all throw or scatter rugs from your floors. These can be a trip hazard.
- If you have stairs, make sure the railings are secure. If not, fix them. If you're putting in a new stair railing, make sure it extends a few inches past the end of the staircase.
- If your bathroom isn't on the ground floor, you may want to consider some temporary relief options. For example, you may want to get a portable commode or potty chair.
- Apply adhesive slip strips to your tub or shower.
- Use liquid soap from a dispenser instead of bar soap. This prevents an additional possible trip hazard or having to bend over to pick up a bar of soap.
- Place a phone next to your bed and other places where you usually sit. Get a carrier for your cell phone. You should always have an immediate way to call for help if you need it.
- Pick a chair that you'll use when you come home. The best chair for those recovering from spine surgery will be firm, allow you to sit at least 18 inches above the floor and have arms. It should be short enough so that your feet lie flat on the floor and should make your knees lower than your hips.
- Put nightlights in each room. Purchase the type with automatic motion sensors or that turn on at sundown.

# Infection Prevention for Home

## Hand Washing

- Wash your hands before and after caring for your wound or changing the dressing.
- Wash your hands several times during the day.
- If you don't see your health care providers wash their hands with soap and water or an alcohol-based hand rub, ask them to do so.
- Visitors shouldn't touch your surgical wound or dressings.
- Visitors should wash their hands before and after visiting you. If you don't see them wash their hands, ask them to do so.

## Skin Care

Don't use any lotions, cream and/or ointments on the incision site.

## Activities of Daily Living

- **Bathing:**
  - Use a clean washcloth for each shower.
  - Use a clean towel after each shower.
  - Don't pick at or touch your incision.
- **Bed linens:**
  - Make sure there are clean linens on the bed when you get home.
  - Wash linens at least once a week or when soiled.
- **Pets:**
  - Don't allow any pets to sleep in bed with you.
  - Wash your hands after touching pets.

## Infection Risks

- Don't pick at or touch your incision.
- If you experience redness, pain at the surgery site, drainage or fever, call your surgeon immediately.
- Patients who smoke are at an increased risk for infection. Ask your physician how you can quit.
- Patients with diabetes and poorly controlled blood sugar have an increased risk of infection. Monitor your blood sugar closely.

## Dietary Recommendations

A well-balanced diet that includes foods high in protein is best to promote healing. Foods high in protein include chicken, fish, lentils, avocado, oats, eggs and dairy products.

## Position Changes

Changing your position frequently promotes wound healing. For example, lying flat, lying on pillows or sitting at a 90 degree angle.



# What to Pack

Bringing a few items from home can make your stay in the hospital or rehabilitation center more comfortable.

## Bring to the Hospital

- Nonskid, closed-heel-to-toe slippers, sneakers or walking shoes
- A toothbrush, toothpaste, mouthwash or denture supplies
- A comb or hairbrush
- Shaving supplies and cosmetics

Please leave jewelry and other valuables at home. Also, we prefer that you wear a hospital gown rather than your own nightgown or pajamas.

You'll have access to free wireless Internet in your hospital room. You're welcome to bring your electronic devices (*for example, tablet or laptop*) to the hospital; however, the hospital isn't responsible for any lost or stolen items.

# If You Live Alone

Those living alone will face special challenges after spine surgery. To make your homecoming as easy as possible, you may want to complete the following tasks before checking into the hospital:

- Find someone to do your yard work.
- Arrange for transportation to the grocery store, community events, your place of worship, family get-togethers and to appointments with your physician and therapist.
- Find someone to help care for your pet.
- Prepare and freeze a few meals before your surgery.

## The Day Before Your Surgery

- Follow your anesthesia instructions about eating and drinking before your surgery. Your surgery can be delayed or even canceled if you don't follow these instructions.
- Report any changes in your physical condition to your physicians. Problems that may require the postponement of your surgery include a sore throat, cold, fever, dental problems, difficulty urinating and skin conditions such as rashes or abrasions.
- If you have any questions about whether you're healthy enough to undergo surgery, please ask a member of your health care team.

## The Morning of Your Surgery

- If you've been instructed to take medications in the morning, swallow them with only a small sip of water. Don't drink or eat anything else unless instructed to by your doctor.
- Shower according to the instructions given during your pre-admission testing (PAT) appointment. DO not apply any lotions, powders, cologne or deodorant.
- Give yourself plenty of time to arrive at the hospital.







# Surgery and Recovery | 5



# At the Hospital

Being in the hospital is probably an unusual experience for you. These procedures will help you know what to expect.

## Pre-Op Surgical Unit

When you first arrive at the hospital, you'll meet with a nurse. The nurse will ask you your name and date of birth. You'll be asked many times to state your name and date of birth. A white hospital identification (ID) band with your information will be placed around your wrist. If you have any medication or food allergies, a red wrist band will also be applied. Additionally, if you're at risk for falling, a yellow wristband will be applied.

You'll be admitted into the presurgical area and change into a hospital gown. Your vital signs, temperature, heart rate, blood pressure and respiratory rate will be taken. You'll be asked to rate your pain level on the pain scale. Your chart will be reviewed and any additional testing that needs to be done prior to surgery will take place. An intravenous line (IV) will be started so you can receive fluids and medications.

## Keeping You Safe

Keeping you safe is our top priority. You'll be asked frequently to identify yourself by stating your name and date of birth while we're checking your ID armband to make sure it's correct. This ensures that we provide the right treatment, tests and medications during your stay.

One of our goals is to prevent the spread of infection. Your health care team will wash their hands with soap and water or use alcohol-based hand sanitizer before and after each patient encounter. If you have concerns that your health care provider hasn't washed his or her hands, please speak up and ask them. Your physician will order IV antibiotics before surgery and possibly following your surgery to help prevent surgical site infections.

We want to perform the right procedure, on the right patient, at the right site every time. We'll ask you to be involved in the process by identifying your surgical site and confirming the site as your surgeon marks the surgical site.

## Neuromonitoring

Your surgeon might have ordered neuromonitoring for your surgical procedure. Neuromonitoring is a process performed by a specialist called a neurophysiologist who's part of the surgical spine team. Electrodes are placed on your scalp, arms and legs. The neurophysiologist reads and documents your nerve signals during surgery. If the surgeon comes too close to a nerve or touches off a motor response, the surgeon is notified. This data allows the surgeon to be able to avoid injury to the spinal cord and nerves.





## About Anesthesia

Anesthesia is a type of medication that causes you to lose sensation, so you'll feel no pain after anesthesia is administered. An anesthesiologist, certified registered nurse anesthetist (CRNA) or anesthesiologist assistant (AA) is responsible for providing anesthesia. The physician or nurse will evaluate your medical status and talk with you to decide which type of anesthesia is best suited for your surgery. The type of anesthesia used will depend on your medical and surgical condition, and on your overall health.

Type	Definition	Advantages	Side Effects
General anesthesia	<p>General anesthesia acts primarily on the brain and nervous system. It not only eliminates sensations of pain during surgery, it also allows you to sleep during the procedure.</p> <p>General anesthesia is administered by injection or by inhaling it into your respiratory system.</p>	Allows patients to sleep through extensive surgical procedure	Sore throat, headache, hoarseness and nausea



# Managing Your Pain

All patients have the right to pain management. Treating pain is an important part of your care and recovery.

Only you can describe the type and degree of pain you experience after surgery. The pain caused by surgery may be severe at first, but it will ease as your body heals. Be sure to report any pain to your physician or nurse.

As a patient, we expect that you'll:

- Assist your physician and/or nurse in assessing your pain. Your nurses will ask you to rate your pain on the scale below, in addition to assessing your level of sedation (sleepiness), vital signs, etc.
- Discuss pain relief options with your physician to develop a pain management plan.
- Ask for pain relief when pain first begins and before any activity that might cause you pain, such as physical therapy.
- Tell your physician and/or nurse about any worries you have about taking pain medications.







## Measuring Your Pain

To help us measure your pain, we'll ask you to rate it before and after a dose of pain medication. Rate your pain on the 0–10 point scale to the right. Zero is no pain and 10 is the worse pain you can imagine.

Standard Pain Scale

0	1	2	3	4	5	6	7	8	9	10
No pain		Mild pain		Moderate pain		Severe pain		Very severe pain		Worst possible pain

Modified Wong-Baker Faces

					
0	2	4	6	8	10
Very happy, no hurt	Hurts just a little bit	Hurts a little more	Hurts even more	Hurts a whole lot	Hurts as much as you can imagine

## Pain Management Feedback

People experience pain in different ways. It's important that you let your health care team know how you rate your pain before and after being medicated. Important points to remember include:

- Our goal is to reduce your pain and make it manageable so you can effectively work with physical and occupational therapy to regain some independence during your hospital stay.
- Be specific when describing the pain—for example, throbbing, aching, shooting, cramping, etc.
- You won't be totally pain free after surgery and during the recovery period.

# Pain Medications

Your physician will choose a pain control method to best suit your individual needs. Some patients will be given pain medication—pills, shots, IV—as needed, while other patients will be given pain medication at certain times during the day.

## Easing Your Pain

We want to work with you to lessen or relieve your pain after surgery. Keeping pain under control will help you heal faster. The keys to optimal pain control are taking pain medication:

- As soon as the pain starts
- Before physical therapy
- Before you start doing anything that'll cause pain.  
This may include walking, dressing or sitting.

## Non-Medication Pain Management Treatments

While medications may help control some of your pain, there are other methods you'll find helpful to assist in making you more relaxed and comfortable, including:

- **Ice:** Ice serves several purposes after surgery, including reducing the swelling and helping to control pain. You may request an ice pack to place near the surgical site.
- **Exercise:** To increase blood flow and prevent increased pain, swelling and blood clots, you'll be encouraged to do simple exercises such as ankle pumps (*move ankles up and down in circles in both directions*). You'll be up walking with the physical therapy and nursing team each day during your recovery, which will help decrease your pain. Also, remember to take slow, deep breaths as you change your position and get out of a bed or chair.
- **Progressive relaxation:** Progressive relaxation involves tensing and relaxing each part of your body. Following progressive relaxation, engage your mind into imagining a pleasant or happy scene. Or, you can tune into our hospital TV channel where you'll find pleasant scenes and music to help with your relaxation exercise. As the mind is occupied by the scene, stress levels are lowered as your muscles and mind relax. This has been proven to greatly reduce pain.
- **Music:** Research has proven that music can be used to decrease the pain response. While studies found that medication was number one for pain reduction, music came in a solid second. It was found that music helps to reduce the intensity of pain as well as the amount of medication needed after surgery. You're welcome to bring your favorite music to listen to as you recover.
- **Pet therapy:** Pet therapy has been shown to increase pain tolerance, reduce stress, lower blood pressure and bring a happy and relaxed feeling to people who have pain. If you're interested in a visit from one of our pet therapy animals, please ask your nurse.
- **Distraction:** No, the pain isn't in your head. But you're in control. Focusing on your pain alone may make the sensation seem more intense. Instead, try to focus on something else, like reading a book or watching television.





### Importance of Controlling Pain

One of the myths about pain is that it shouldn't be treated but experienced. However, if pain isn't treated, it can affect many different areas of your body, such as the heart, stomach and lungs. Sometimes patients try to deal with pain after surgery by taking short breaths, or by holding back coughs to prevent hurting their incision sites. These actions can cause postoperative complications such as pneumonia. Also, undertreated pain may result in increased fear, anxiety or lack of sleep. **Remember:** Pain prevention and control brings short and long-term relief as well as healing benefits. Be sure to report any pain to your physician or nurse.

### At-Home Pain Control

Have a pain control plan. Before leaving the hospital, you'll be given a prescription for pain medication. Have it filled. If you're given a prescription by your physician before surgery, have it filled before you come to the hospital. Take as prescribed. A Publix Pharmacy is available at select BayCare hospitals.

Follow the directions carefully. Some pain medications cause nausea if not taken with food. If you suffer from nausea even when taking the medication as directed, call your physician. If your pain doesn't go away after taking your medicine, or if it gets worse, call your physician. When your pain decreases, you may switch to over-the-counter pain medication that your physician has approved. Many prescription pain medications cause constipation. Increase your intake of water, fruits and vegetables to avoid this. (*See Chapter 6 for more information on post-surgical nutrition.*)





### **Publix Pharmacy at BayCare**

A Publix Pharmacy is open at most BayCare hospitals.



#### **Services include:**

- **Bedside delivery:** We can fill and deliver prescriptions to your room before discharge.
- **Free medications:** A 14-day supply of select antibiotics and up to 90-day treatments for allergies, asthma, high blood pressure and diabetes, for as long as the physician prescribes. Certain restrictions apply.
- **Sync your refills:** We can align all your medication refills to be ready at the same time for pick up from the Publix Pharmacy of your choice.
- **Publix Pharmacy online:** Manage your prescription online—receive text alerts when it's time for a refill and when your prescription is ready for pick up. Visit [RX.Publix.com](https://RX.Publix.com).



# Medication Side Effects

This chart shows information about the most common side effects of medication you may be taking during your hospital stay. If you have questions or concerns, ask your nurse.

Reason for Medication	Medication Names: Generic ( <i>Brand name</i> )	Most Common Side Effects
<b>Pain Relief</b> 	<ul style="list-style-type: none"> <li>• Fentanyl (<i>Sublimaze</i>®, <i>Actiq</i>®)</li> <li>• Hydrocodone/Acetaminophen (<i>Vicodin</i>®, <i>Lortab</i>®, <i>Norco</i>®)</li> <li>• Hydromorphone (<i>Dilaudid</i>®)</li> <li>• Morphine (<i>MS Contin</i>®, <i>Kadian</i>®)</li> <li>• Oxycodone (<i>Roxicodone</i>®)</li> <li>• Oxycodone/Acetaminophen (<i>Percocet</i>®, <i>Roxicet</i>®, <i>Tylox</i>®)</li> <li>• Tramadol (<i>Ultram</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness/Drowsiness</li> <li>• Constipation</li> <li>• Queasiness/Vomiting</li> <li>• Rash</li> <li>• Confusion</li> </ul>
<b>Muscle Relaxant</b> 	<ul style="list-style-type: none"> <li>• Cyclobenzaprine (<i>Flexeril</i>)</li> <li>• Carisoprodol (<i>Soma</i>)</li> <li>• Diazepam (<i>Valium</i>)</li> <li>• Methocarbamol (<i>Robaxin</i>)</li> <li>• Tizanidine (<i>Zanaflex</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Headache</li> <li>• Confusion</li> <li>• Dizziness</li> <li>• Nausea</li> <li>• Vomiting</li> </ul>
<b>Nausea or Vomiting</b> 	<ul style="list-style-type: none"> <li>• Ondansetron (<i>Zofran</i>®)</li> <li>• Metoclopramide (<i>Reglan</i>®)</li> <li>• Prochlorperazine (<i>Compazine</i>®)</li> <li>• Promethazine (<i>Phenergan</i>®)</li> <li>• Scopolamine patch (<i>Transderm-Scop</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Constipation</li> <li>• Tiredness/Drowsiness</li> </ul>
<b>Heartburn or Reflux</b> 	<ul style="list-style-type: none"> <li>• Famotidine (<i>Pepcid</i>®)</li> <li>• Lansoprazole (<i>Prevacid</i>®)</li> <li>• Pantoprazole (<i>Protonix</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Diarrhea</li> </ul>
<b>Lowers Cholesterol</b> 	<ul style="list-style-type: none"> <li>• Atorvastatin (<i>Lipitor</i>®)</li> <li>• Lovastatin (<i>Mevacor</i>®)</li> <li>• Pravastatin (<i>Pravachol</i>®)</li> <li>• Rosuvastatin (<i>Crestor</i>®)</li> <li>• Simvastatin (<i>Zocor</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Upset Stomach</li> <li>• Headache</li> <li>• Muscle pain (<i>if you have muscle pain, tell nurse/physician right away</i>)</li> </ul>
<b>Blood Thinner</b> <i>(to prevent or break down blood clots)</i> 	<p><b>Injectable blood thinners:</b></p> <ul style="list-style-type: none"> <li>• Enoxaparin (<i>Lovenox</i>®)</li> <li>• Fondaparinux (<i>Arixtra</i>®)</li> <li>• Heparin (<i>Hep-Lock</i>®)</li> </ul> <p><b>Oral blood thinners:</b></p> <ul style="list-style-type: none"> <li>• Aspirin</li> <li>• Clopidogrel (<i>Plavix</i>®)</li> <li>• Dabigatran (<i>Pradaxa</i>®)</li> <li>• Prasugrel (<i>Effient</i>®)</li> <li>• Rivaroxaban (<i>Xarelto</i>®)</li> <li>• Warfarin (<i>Coumadin</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of Bleeding</li> <li>• Upset Stomach</li> <li>• Risk of Bleeding</li> </ul>

Reason for Medication	Medication Names: Generic ( <i>Brand name</i> )	Most Common Side Effects
<b>Heart Rhythm Problems</b> 	<ul style="list-style-type: none"> <li>• Amiodarone (<i>Cordarone</i>®, <i>Pacerone</i>®)</li> <li>• Digoxin (<i>Lanoxin</i>®, <i>Digitex</i>®)</li> <li>• Propafenone (<i>Rythmol</i>®)</li> <li>• Flecainide (<i>Tambocor</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Headache</li> </ul>
<b>Lowers Blood Pressure and Heart Rate</b> 	<ul style="list-style-type: none"> <li>• Diltiazem (<i>Cardizem CD</i>®, <i>Cartia XT</i>®, <i>Tiazac</i>®, <i>Dilacor XT</i>®)</li> <li>• Atenolol (<i>Tenormin</i>®)</li> <li>• Carvedilol (<i>Coreg</i>®)</li> <li>• Metoprolol (<i>Lopressor</i>®, <i>Toprol XL</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Dizziness/Drowsiness</li> </ul>
<b>Lowers Blood Pressure</b> 	<ul style="list-style-type: none"> <li>• Benazepril (<i>Lotensin</i>®)</li> <li>• Captopril (<i>Capoten</i>®)</li> <li>• Enalapril (<i>Vasotec</i>®)</li> <li>• Lisinopril (<i>Zestril</i>®, <i>Prinivil</i>®)</li> <li>• Quinapril (<i>Accupril</i>®)</li> <li>• Ramipril (<i>Altace</i>®)</li> <li>• Irbesartan (<i>Avapro</i>®)</li> <li>• Olmesartan (<i>Benicar</i>®)</li> <li>• Valsartan (<i>Diovan</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Cough</li> </ul>
<b>Antibiotic for Bacterial Infections</b> 	<ul style="list-style-type: none"> <li>• Amoxicillin/Clavulanate (<i>Augmentin</i>®)</li> <li>• Cefazolin (<i>Ancel</i>®, <i>Kefzol</i>®)</li> <li>• Cefotetan (<i>Cefotan</i>®)</li> <li>• Clindamycin (<i>Cleocin</i>®)</li> <li>• Ertapenem (<i>Invanz</i>®)</li> <li>• Levofloxacin (<i>Levaquin</i>®)</li> <li>• Meropenem (<i>Merrem</i>®)</li> <li>• Metronidazole (<i>Flagyl</i>®)</li> <li>• Piperacillin/Tazobactam (<i>Zosyn</i>®)</li> <li>• Vancomycin (<i>Vancocin</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Upset Stomach</li> <li>• Diarrhea</li> <li>• Rash/Flushing</li> <li>• Headache</li> </ul>
<b>Helps with Inflammation</b> 	<ul style="list-style-type: none"> <li>• Celecoxib (<i>Celebrex</i>®)</li> <li>• Dexamethasone (<i>Decadron</i>®)</li> <li>• Hydrocortisone (<i>Cortef</i>®, <i>Hytoney</i>®)</li> <li>• Ibuprofen (<i>Motrin</i>®, <i>Advil</i>®)</li> <li>• Ketorolac (<i>Toradol</i>®)</li> <li>• Methylprednisolone (<i>Medrol</i>®, <i>Solu-Medrol</i>®)</li> <li>• Naproxen (<i>Naprosyn</i>®, <i>Anaprox</i>®, <i>Aleve</i>®)</li> <li>• Prednisone (<i>Deltasone</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Upset Stomach</li> <li>• Sleeplessness</li> </ul>
<b>Calms Nerves or Makes You Sleepy</b> 	<ul style="list-style-type: none"> <li>• Alprazolam (<i>Xanax</i>®)</li> <li>• Diazepam (<i>Valium</i>®)</li> <li>• Lorazepam (<i>Ativan</i>®)</li> <li>• Oxazepam (<i>Serax</i>®)</li> <li>• Temazepam (<i>Restoril</i>®)</li> <li>• Zolpidem (<i>Ambien</i>®)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness/Drowsiness</li> <li>• Weakness</li> <li>• Headache</li> <li>• Confusion</li> </ul>





## Nutrition

### Nutrition During Hospitalization

Soon after surgery, you'll be given small sips of water and a few ice chips. Once you can tolerate clear fluids without nausea and/or vomiting, you can begin to eat. A team member will discuss with you how to order your meals. Once you're allowed to eat solid foods, you may order anything from the menu that fits into your dietary plan ordered by your physician. We encourage family members to bring in your favorite foods if nothing sounds good on the menu. It's important to eat foods high in protein and carbohydrates to promote the healing process.

### Preventing Constipation

After surgery and during your hospital stay, constipation may be a problem. The best way to prevent constipation is to eat a high fiber diet and drink at least six 8 ounce glasses of water each day. Walking is an important part of your recovery and will also help you avoid constipation. During hospitalization, you'll be given stool softeners daily. Remember, it's important to continue your fluid intake to help the stool softeners work effectively. We also advise that you continue to take stool softeners following your discharge and until you're no longer taking pain medication. Stool softeners are over-the-counter medications and can be purchased at any drugstore.

### Nutrition After Hospitalization

After you leave the hospital, your diet will continue to be one of the most important factors in the healing process. A healthy diet is very important to your recovery. To help make good food choices, the United States Department of Agriculture (USDA) dietary guidelines found at [ChooseMyPlate.gov](http://ChooseMyPlate.gov) can help.

Before you eat, think about what you put on your plate or in your cup or bowl. Some good food suggestions include:

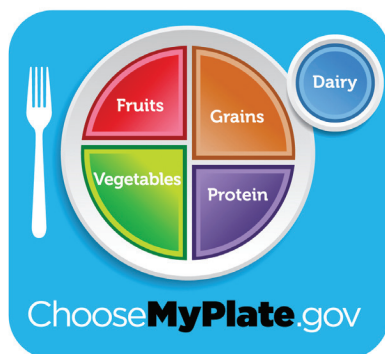
- **Make half your plate fruits and vegetables:**

- **Fruits:** Any fruit (*fresh, canned, frozen or dried*) or 100 percent fruit juice counts.
- **Vegetables:** Vary your veggies.

- **Grains:** Make at least half your grains whole grains.

- **Protein:** Choose lean protein and keep it lean as you prepare it.

- **Dairy:** Get lots of calcium-rich foods.





### Nutrients to Help You Heal

Nutrients that help your body heal are found in many food sources such as:

- **Protein:** Meat, poultry, seafood, eggs, dairy products and peanut butter
- **Zinc:** Seafood, meat and poultry (best source), whole-grain cereals and breads, dairy products
- **Fluids:** Water, juice and gelatin
- **Iron:** Red meats, egg yolk, chicken, turkey
- **Vitamin A:** Dark green leafy vegetables, deep orange and yellow vegetables and fruits (*such as spinach, winter squash, carrots, sweet potatoes, melons, peaches, pumpkins and apricots*), milk and dairy products, liver, egg yolk
- **Vitamin C:** Citrus fruits and juices, broccoli, green pepper, spinach, Brussels sprouts, cabbage, strawberries, tomatoes, cantaloupe

### Calcium

For your bone health and general well-being, plan on getting at least 1,200 to 1,500mg of calcium every day. Read labels. Drinking too many soft drinks may keep your body from absorbing the calcium found in foods. You can meet your daily calcium requirement by drinking or eating three 8-ounce glasses of milk, 1 ounce of reduced-fat cheese, and one serving of leafy green vegetables. The best food sources include:

- Milk: Whole, reduced-fat or nonfat
- Yogurt
- Hard cheese or cottage cheese
- Salmon, mackerel or sardines (*canned with bones*)
- Broccoli
- Greens: collard, turnip, mustard, spinach and kale
- Calcium-fortified foods



# Nutrition Supplements and Other Medications

## Preventing Excessive Bleeding and Helping Fusion Heal

There are medications and herbal supplements that you need to AVOID for at least one week before surgery and after surgery, until your surgeon says it's okay. These medications and/or supplements may cause excessive bleeding before surgery and prevent the fusion from healing properly. Medications (*classified as non-steroidal anti-inflammatory drugs*) to avoid include:

- Advil®, Aleve®, Anacin®, Aspirin®, Feldene®, Daypro®, Ibuprofen, Indocin®, Mobic®, Motrin®, Naprosyn®, Toradol®, Voltaren®
- Certain cold medications

Check with your pharmacist if you have any questions about whether or not a medication includes nonsteroidal anti-inflammatory drugs (NSAIDs), and follow any directions from your surgeon about medications to avoid.

Also, avoid all herbal supplements, including green tea, fish oil, Omega-3 supplements, etc., prior to surgery, as directed by your surgeon. If you're not taking a blood thinner, you may restart these herbal supplements when you return home unless otherwise noted by your surgeon. If you're taking a blood thinner, talk to your primary care physician, cardiologist or surgeon about when to stop and restart this medication.

## Preventing Complications

After surgery, your body is in a weakened state and at a greater risk for infection and other health problems. You and your caregiver can do much to reduce the chance of postsurgical complications.

- Nurses will measure your blood pressure, temperature, pulse and respirations.
- Health care workers will regularly check your extremities (*arms and legs*) for movement, feeling and proper circulation.
- Exercises that have been approved by your physician will help with circulation and strength.
- If ordered by your physician, wear white elastic socks (*called TED stockings*) to support your muscles, promote circulation and prevent blood clots.
- You'll be shown how to use an incentive spirometer. Regular use of this helps prevent lung complications after surgery.
- Your surgical dressing (*bandage*) and incision will be checked regularly.
- You'll have an IV for one or two days. It's important to drink six to eight glasses of water after your surgery and after your IV is removed. If you feel too nauseated to drink, tell your nurse.
- Your nurse will order a regular diet when your bowel sounds return and you can pass gas.
- Your inactivity, along with your pain medication, can cause constipation. To help avoid this, drink plenty of fluids, include fiber in your diet and increase your activity as you can.

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If you have questions about any of these activities, talk to your physician or nurse.

## Postoperative Respiratory Exercises

An incentive spirometer is a device that assists in lung expansion. Expanded lungs are healthier lungs. You'll also find that taking slow, deep breaths and coughing periodically will help keep your lungs clear. Use the incentive spirometer six to 10 times each hour while you're awake. If you feel lightheaded or dizzy, you may be overdoing it. Stop and rest. Start the breathing exercises again when you feel better.

When you can't inhale anymore, hold your breath for six seconds. Then exhale slowly. Repeat as often as prescribed by your physician.

## Sequential Compression Device (SCD)

### What is the sequential compression device ?

The sequential compression device (SCD) is a device that can lower your risk of having blood clots in your legs after surgery. It's a wrap that stays in place around your legs with Velcro strips. These wraps alternately and gently squeeze your leg muscles. Patients often think the SCD isn't working properly when the pressure alternates on each leg but this is the correct process. They're filled with air from a pump run by a preset motor. This squeezing acts like the body's way of moving blood through your body. Although the SCD moves blood through the body similarly to walking, the wraps shouldn't be substituted for walking.

### Why do I need the SCD?

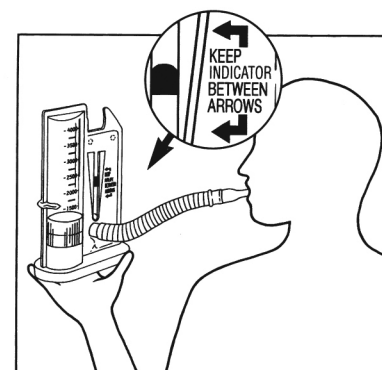
The normal flow of blood through your body is slowed down by surgery and decreased activity after surgery. Blood clots can form when blood is moving slowly through the body. These blood clots can cause permanent damage to your blood vessels, as well as damage to your lungs. Blood clots can also cause damage to your lungs and problems with breathing.

### Why should I use this device?

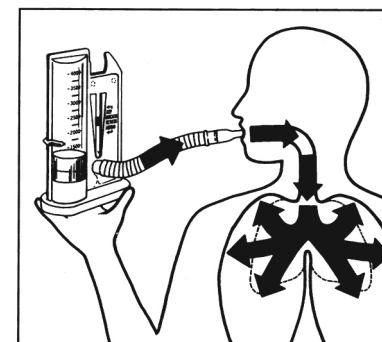
This device can help prevent blood clots from forming; however, you'll also need to get out of bed and walk. The device may be taken off when you're walking, bathing or leaving your room for tests. The device should be used all the time until your physician says you no longer need it.

### How will the SCD feel?

The leg wraps are made of soft fabric. They should fit snugly around your legs. You should be able to slide two fingers between the leg wrap and your leg. Once the pump is turned on, you'll feel a gentle squeezing of one leg for 10–12 seconds. There will be a rest time of 18 seconds, and then the other leg will be squeezed. The squeezing will change from leg to leg. If you're using only one wrap, it'll squeeze your leg once a minute. If the wrap feels too loose, too tight or if you feel any pain, numbness or tingling, notify your nurse or physician at once. A "chirping" sound means the SCD isn't working properly and needs adjustment.



**Exhale** (breathe out) completely, then close your lips tightly around the mouthpiece.



**Inhale** (breathe in) slowly and deeply, pulling up the round piston while keeping the small, blue ball on the right between the two arrows.



Sequential Compression Device



# Patient Care Plan: Cervical Surgery (Neck)

Day of Surgery	
Activity plan	<ul style="list-style-type: none"> <li>Depending on the surgery you've had, you'll either remain in bed or be assisted to get out of bed. While in bed, you'll be asked or assisted to roll from side to side.</li> <li>Lying on your back is also okay.</li> </ul>
Diet	<ul style="list-style-type: none"> <li>After surgery, you'll be given small sips of water and a few ice chips.</li> <li>A clear, liquid diet is ordered next.</li> <li>A regular diet can then be ordered as long as you don't have any nausea or vomiting.</li> <li>Soft foods are best because they're easier to swallow.</li> </ul>
Pain control	<ul style="list-style-type: none"> <li>Use the pain scale to let your nurse know your pain level.</li> <li>Use pain medication and muscle relaxants as needed.</li> <li>Tell the nurse the effects of the pain medication.</li> <li>Try other non-medication measures discussed in this guide.</li> <li>If your throat is sore, ask for throat lozenges.</li> </ul>
Breathing exercises	<p><b>Do 10 times each hour while awake:</b></p> <ul style="list-style-type: none"> <li>Cough</li> <li>Deep breathe</li> <li>Use the incentive spirometer</li> <li>Use oxygen if ordered</li> </ul>
Equipment you may have in your room or attached to your body	<ul style="list-style-type: none"> <li>An IV</li> <li>A drain from your incision site</li> <li>A urinary (<i>Foley</i>) catheter</li> <li>Sequential compression device (SCD) to help prevent blood clots</li> <li>A cervical collar, if ordered</li> </ul>
Things to report to the nurse	<ul style="list-style-type: none"> <li>Difficulty breathing or swallowing</li> <li>Painful or reddened areas on your skin</li> <li>New onset or increase in the level of pain</li> <li>Changes in sensation or movement</li> </ul>
Review discharge plan	<p>Depending on your surgeon, some patients go home the same day. If your surgeon allows you to go home today, you must be able to walk, eat, urinate and have good pain control.</p>

## First Day after Surgery and Remainder of Stay

Activity plan	A physical therapist or nurse will assist you in getting up and out of bed and into a chair. It's best to sit in a chair when eating.	
Diet	<ul style="list-style-type: none"> <li>You should be on a regular diet as prescribed by your surgeon. Let the nurse know if you have any nausea.</li> <li>Pain medication and anesthesia can cause constipation. Drink up to six glasses of water each day. Use the stool softeners as directed.</li> </ul>	
Pain control	<ul style="list-style-type: none"> <li>Use the pain scale to let your nurse know your pain level.</li> <li>Use pain medication and muscle relaxants as needed.</li> <li>Tell the nurse the effects of pain medication.</li> <li>Try other non-medication measures discussed in this guide.</li> <li>Common side effects of narcotics include nausea, vomiting, dizziness, constipation, rash, itching, dry mouth, decrease in appetite and a lower breathing rate.</li> <li>Common side effects of muscle relaxants include drowsiness, headache, confusion, dizziness, nausea and vomiting.</li> </ul>	
Breathing exercises	<b>Do 10 times each hour while awake:</b> <ul style="list-style-type: none"> <li>Cough</li> <li>Deep breathe</li> <li>Use the incentive spirometer</li> <li>Use oxygen if ordered</li> </ul>	
Equipment you may have in your room or attached to your body	<ul style="list-style-type: none"> <li>An IV: This'll be "capped" when you're drinking enough fluids.</li> <li>A drain from your incision site: This may be removed.</li> <li>A urinary (<i>Foley</i>) catheter: It'll be removed. Ask for help when getting up to use the bathroom.</li> <li>Sequential compression device (SCD) to help prevent blood clots</li> <li>A cervical collar, if ordered</li> </ul>	
Things to report to the nurse	<ul style="list-style-type: none"> <li>Difficulty breathing or swallowing</li> <li>Painful or reddened areas on your skin</li> </ul>	<ul style="list-style-type: none"> <li>New onset or increase in the level of pain</li> <li>Changes in sensation or movement</li> </ul>
Review discharge plan	<ul style="list-style-type: none"> <li>Most patients go home this day.</li> <li>Discuss with your health care team your: <ul style="list-style-type: none"> <li>Discharge destination (<i>home, rehab center, etc.</i>)</li> <li>Equipment needed at home, if any</li> <li>Home support (<i>who's helping you at home</i>)</li> <li>Home health, if ordered</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Discharge Education <ul style="list-style-type: none"> <li>Pain management</li> <li>Wound care and bathing</li> <li>Activities and any restrictions on activities</li> <li>Medications</li> <li>Cervical collar care and instructions, if ordered</li> <li>Follow-up physician's appointment</li> </ul> </li> </ul>



# Patient Care Plan: Lumbar Surgery (*Back*)

Day of Surgery	
Activity plan	<ul style="list-style-type: none"> <li>Depending on the surgery you've had, you'll either remain in bed or be assisted to get out of bed. While in bed, you'll be asked or assisted to roll from side to side.</li> <li>Lying on your back is also okay.</li> </ul>
Diet	<ul style="list-style-type: none"> <li>After surgery, you'll be given small sips of water and a few ice chips.</li> <li>A clear, liquid diet is ordered next.</li> <li>A regular diet can then be ordered as long as you don't have any nausea or vomiting.</li> <li>Soft foods are best because they're easier to swallow.</li> </ul>
Pain control	<ul style="list-style-type: none"> <li>Use the pain scale to let your nurse know your pain level.</li> <li>Use pain medication and muscle relaxants as needed.</li> <li>Tell the nurse the effects of the pain medication.</li> <li>Try other non-medication measures discussed in this guide.</li> </ul>
Breathing exercises	<p><b>Do 10 times each hour while awake:</b></p> <ul style="list-style-type: none"> <li>Cough</li> <li>Use the incentive spirometer</li> <li>Deep breathe</li> <li>Use oxygen if ordered</li> </ul>
Equipment you may have in your room or attached to your body	<ul style="list-style-type: none"> <li>An IV</li> <li>A drain from your incision site</li> <li>A urinary (<i>Foley</i>) catheter</li> <li>Sequential compression device (SCD) to help prevent blood clots</li> <li>A brace, if ordered</li> </ul>
Things to report to the nurse	<ul style="list-style-type: none"> <li>New onset or increase in level of pain</li> <li>Changes in sensation or movement to lower back, buttocks or legs</li> <li>Any drainage felt on your dressing</li> </ul>
Review discharge plan	<ul style="list-style-type: none"> <li>Depending on your surgeon, some patients go home the same day.</li> <li>If your surgeon allows you to go home today, you must be able to walk, eat, urinate and have good pain control.</li> <li>If you're being discharged, discuss with your health care team your: <ul style="list-style-type: none"> <li>Discharge destination (<i>home, rehab center, etc.</i>)</li> <li>Equipment needed at home, if any (<i>for example: a walker, potty chair, etc.</i>)</li> <li>Home support (<i>who is helping you at home</i>)</li> <li>Home health, if ordered</li> </ul> </li> <li>Discharge education: <ul style="list-style-type: none"> <li>Pain management</li> <li>Wound care and bathing</li> <li>Activities and restrictions on activities</li> <li>Medications</li> <li>Brace: Instructions and care, if ordered</li> </ul> </li> <li>Follow-up physician's appointment and home care needs</li> </ul>

## First Day after Surgery and Remainder of Stay

Activity plan	<ul style="list-style-type: none"> <li>• A physical therapist or nurse will assist you in getting up and out of bed and into a chair. It's best to sit in a chair when eating.</li> </ul>
Diet	<ul style="list-style-type: none"> <li>• You should be on a regular diet as prescribed by your surgeon. Let the nurse know if you have any nausea.</li> <li>• Pain medication and anesthesia can cause constipation. Drink up to six glasses of water each day. Use the stool softeners as directed.</li> </ul>
Pain control	<ul style="list-style-type: none"> <li>• Use the pain scale to let your nurse know your pain level.</li> <li>• Use pain medication and muscle relaxants as needed.</li> <li>• Tell the nurse the effects of pain medication.</li> <li>• Try other non-medication measures discussed in this guide.</li> <li>• Common side effects of narcotics include nausea, vomiting, dizziness, constipation, rash, itching, dry mouth, decrease in appetite and a lower breathing rate.</li> <li>• Common side effects of muscle relaxants include drowsiness, headache, confusion, dizziness, nausea and vomiting.</li> </ul>
Breathing exercises	<p><b>Do 10 times each hour while awake:</b></p> <ul style="list-style-type: none"> <li>• Cough</li> <li>• Use the incentive spirometer</li> <li>• Deep breathe</li> <li>• Use oxygen if ordered</li> </ul>
Equipment you may have in your room or attached to your body	<ul style="list-style-type: none"> <li>• An IV: This'll be "capped" when you're drinking enough fluids.</li> <li>• A drain from your incision site: This may be removed, depending on how much drainage you have.</li> <li>• A urinary (Foley) catheter: It'll be removed. Ask for help when getting up to use the bathroom.</li> <li>• Sequential compression device (SCD) to help prevent blood clots</li> <li>• A brace, if ordered</li> </ul>
Things to report to the nurse	<ul style="list-style-type: none"> <li>• New onset or increase in level of pain</li> <li>• Changes in sensation or movement to lower back, buttocks and legs</li> <li>• Any drainage felt on your dressing</li> </ul>
Review discharge plan	<ul style="list-style-type: none"> <li>• Discuss with your health care team your: <ul style="list-style-type: none"> <li>– Discharge destination (home, rehab center, etc.)</li> <li>– Equipment needed at home, if any (for example, a walker, potty chair, etc.)</li> <li>– Home support (who's helping you at home)</li> <li>– Home health, if ordered</li> </ul> </li> <li>• Discharge Education <ul style="list-style-type: none"> <li>– Pain management</li> <li>– Wound care and bathing</li> <li>– Activities and restrictions on activities</li> <li>– Medications</li> <li>– Brace: Instructions and care, if ordered</li> <li>– Follow-up physician's appointment and home care needs</li> </ul> </li> </ul>





Cervical collar options



## Cervical Surgery: The Cervical Collar

Your surgeon may have prescribed a cervical collar for you. The collar is designed to protect your spine while healing takes place. When you wake up in the post-anesthesia care unit (PACU) after surgery, you'll be wearing your collar. Your surgeon will talk with you about when you need to wear the collar and how long you'll need to wear it.

## Lumbar Surgery: The Brace

Your physician may have prescribed a brace for you. The brace is designed to protect your spine while healing takes place. In general, the brace should be worn at all times when you're out of bed (except while in the shower), or as directed by your surgeon. You'll need to wear a fitted t-shirt, camisole or sleeveless shirt under the brace. When you return for your postoperative appointment, your surgeon will determine if you need to continue to wear the brace. **Your physician will decide which brace you need based on your specific case.**

- **The lumbar brace** is an elastic corset type brace with a Velcro attachment in the front. Most patients learn to put on and remove this brace independently, while some may require assistance from a caregiver. This brace may be applied while sitting on the edge of the bed.
- **The thoracic-lumbo-sacral-orthosis (TLSO) brace** is designed as two molded plastic pieces (front and back) with straps on each side. Some people call this the turtle shell brace. Most patients will require assistance to place and remove the TLSO brace. Your physical therapist and occupational therapist will work closely with you and your caregivers on how to properly put on and off the brace. If you experience problems with your customized TLSO, notify the company that made your brace. In the meantime, pad any pressure areas with gauze or cotton. It's important to do this right away.



Lumbar Brace



# Spine Precautions

## No bending, lifting, twisting (B, L, T):

- Don't bend at the waist.
- Don't lift objects heavier than a gallon of milk (10 pounds).
- Don't twist your trunk.

The only aerobic exercise prescribed by your surgeon immediately after surgery is walking.

# Body Mechanics Principles After Surgery

## Sleeping:

- Use a firm mattress.
- Use pillows for positioning:
  - Under knees when lying on back
  - Between legs and pillow or wedge behind back when lying on your side
- Sleep on your back, side or stomach.

## Sitting:

- Avoid chaise lounges, soft sofas, and chairs on wheels or with moveable supports.
- Avoid low, deep chairs. It's difficult to get up from this type of furniture without bending.
- Adjust chair for proper height.
- Use a chair with arm rests and back support.

## Standing:

- Change your position by shifting your weight, walking or placing your foot on a low stool.
- Wear comfortable shoes with good support.
- Adjust heights to avoid bending and reaching; keep frequently used items at waist level.

## Pushing/Pulling:

- Push instead of pull.
- Keep your back straight and head up.
- Keep your knees and elbows slightly bent.



How to do the log roll technique:



## Mobility

- **Bed mobility:** When rolling to your side, move your body as a unit. Move your hips and shoulders together to avoid twisting. You'll hear your patient care team refer to this as a "log roll."
- **Getting in and out of beds and chairs:** To get into bed, sit on the edge then lower your upper body sideways, using your arms for support. At the same time that you're lowering your upper body, bring your legs and feet up onto the bed. Your care team will go over this before discharge.

To get out of bed, the process is reversed. Avoid twisting by using the arm closest to the bed for support. This will eliminate the need to reach across your body. Before standing, move as close as possible to the edge of the bed and place your feet on the floor. If you're sitting on a chair without arms, push with your hands against your thighs, keeping your head up and your back straight. **Move slowly so that you don't hurt yourself.**

If you need an assistive device such as a walker or cane, the physical therapist will teach you properly how to use the equipment.

## When Can I Go Home?

A smooth and speedy recovery depends on you. Follow the instructions in your personal care plan about all of your activities. By strictly following this plan, you'll have a better chance of leaving the hospital sooner. The type of procedure you've had will determine your length of stay. Your surgeon or Nurse Navigator will review this with you.

# Equipment After Surgery

To ensure a safe recovery, you might need some special equipment after spine surgery. Insurance may cover the purchase of a walking aid and/or a bedside commode. You may have to pay for other items out of pocket. Read “Where to Find Equipment” for ideas on where these items can be purchased or rented. Check with your insurance company to identify coverage of equipment.

Equipment may include:

- A walking aid such as a rolling walker or a cane
- A 3-in-1 bedside commode (*potty chair*): This is a raised toilet seat set in an enclosed stand. It can be used in any room or placed over your bathroom toilet. It gives you the extra height spine patients need after surgery. Remember, you don't want to sit on anything low, such as a sofa or a toilet.
- A handheld shower head lets you control the spray of water. Use it while sitting on your tub bench.
- A long-handled shoe horn helps you guide your foot into the shoe.
- A sock aid will help you put on socks without bending.
- A long-handled sponge can be used to wash your lower body and feet so you don't have to bend over.
- Grab bars installed in the bathtub and shower will help you stay safe while climbing in and out. A shower or tub bench may be useful if you don't have a walk-in shower.
- A grabber or hook will help you access items that are stored above or below waist level.



Rolling walker



Bedside commode



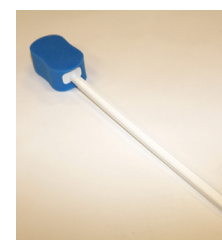
Hand-held shower head



Long-handled shoe horn



Sock aid



Long-handled sponge



Grab bars and tub bench



Grabber

## Where to Find Equipment

The following is a list of places where you can purchase or lease the equipment you'll need after surgery. If you're able to get these items before surgery, your discharge will go more smoothly.

- Call local drugstores to see what selections of health equipment they carry.
- BayCare HomeCare is a regional corporation selling health care items. They will deliver these goods to your home. Call (800) 940-5151 for more information.
- Second hand or thrift stores may have used equipment you can purchase.
- There are many online resources you can check for purchasing needed equipment.







## A Final Note

BayCare's spine programs want to ease your pain and help you regain your independence. Following the instructions in this manual will help ensure that you heal as fully as possible, as quickly as possible. If you have any questions about anything, talk with your physician or nurse.





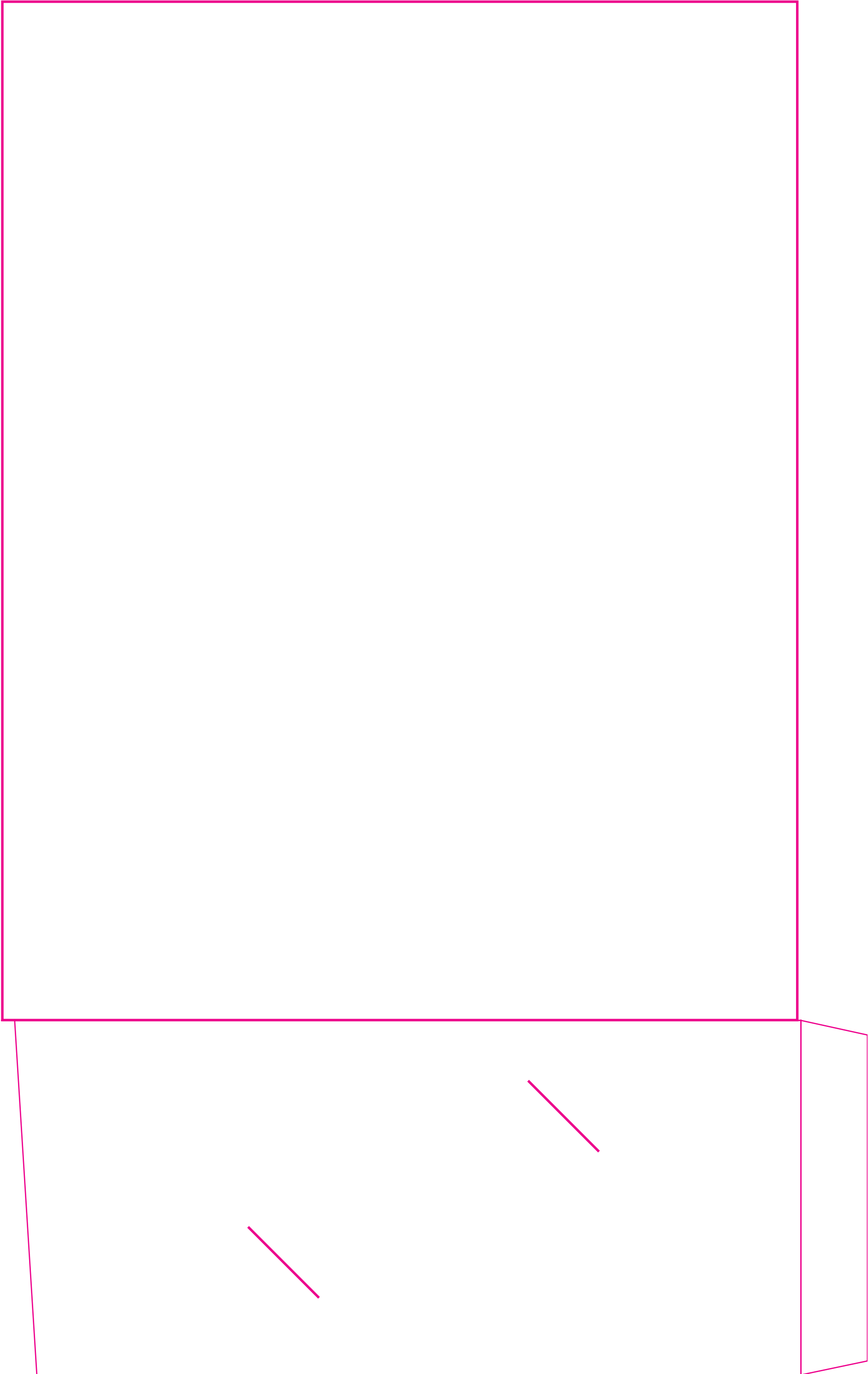
## My Questions

Use this page to write down questions to ask your physician, nurse, physical therapist or any member of your medical team.













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