

Your Guide to Spine Surgery



 **Morton Plant Mease**
BayCare Health System

MPMHealth.com

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Chapter One: General Information

Welcome to the Comprehensive Spine Surgery Program

Your Spine Team

On the Big Day

How to Get Here

Tobacco-Free Campus

Chapter One: General Information

General Information

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 a more active role in your recovery. That's why our health care professionals at Morton Plant Mease hospitals developed this book. It is our hope that it will increase your general knowledge of spine health. This book will also help you prepare for surgery, and guide you through recovery.

Because we wanted to give you as much information as possible, you may find this book a little overwhelming at first glance. We suggest you read it at a leisurely pace. But do try to read the entire guide before arriving for surgery.

Bring this book with you when you come to the hospital for your spinal procedure. Review with your doctors, nurses, physical therapists, case managers/social workers and occupational therapists any questions you may have. They will address your concerns, guide you through the surgery itself, and help you and your family to create a recovery plan.

This book has been prepared only for your information. It should not be considered a substitute for medical advice.

General Information

Meet Your Spine Team

At the hospital, your spine surgeon is supported by a strong and talented team. These team members will help you prepare for surgery, make your hospital stay as comfortable as possible and help you recover as quickly as possible. Members of your team include:

Internal Medicine Specialist/Hospitalist (Physician)

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

Nurses

A licensed nurse will coordinate your activities while at the hospital. The nurse will also take charge of your personal care, pain management and discharge planning. They will help you learn how to move your body after surgery. The registered nurse (RN) and licensed practical nurse (LPN) wear royal blue scrubs or white scrubs.

The **Neuro-Ortho Nurse Navigator** is an RN who will help coordinate your care and guide you and your family during your hospital stay to assure a positive experience.

Patient Care Leader (PCL) is a specialized nurse who will help coordinate your care with your doctor, primary nurse and other health care professionals. They wear royal blue scrubs or white scrubs.

Patient Care Tech

The Patient Care Tech (PCT) works under the direction of an RN or LPN. They take your vital signs and assist you with activities such as bathing or getting to the bathroom. The PCT wears dark green scrubs.

Physical Therapists

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

General Information

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 ordered to teach you simple techniques to make activities of daily living easier.

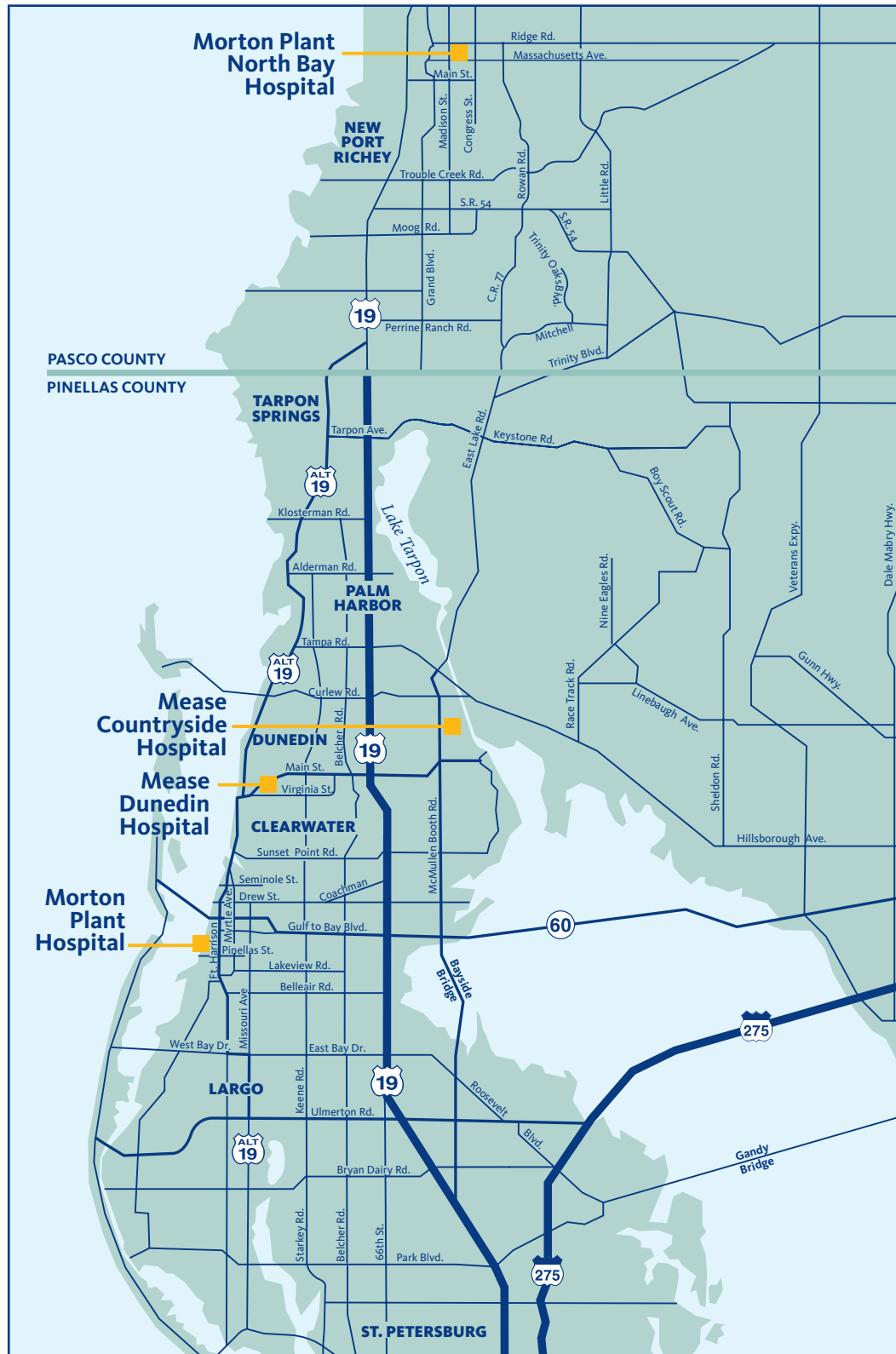
Social Workers

Social workers will help you plan your release from the hospital especially if you will need home health or rehab placement. They will also communicate with your family and friends. During these discussions, social workers identify the support that your relatives and friends can provide during your recovery period, and educate them (and you) on the community resources available to help you. These professionals will also help you understand your insurance benefits.

While staying in the hospital, you may also meet other health care professionals. These include home health, dietary and respiratory care staff.

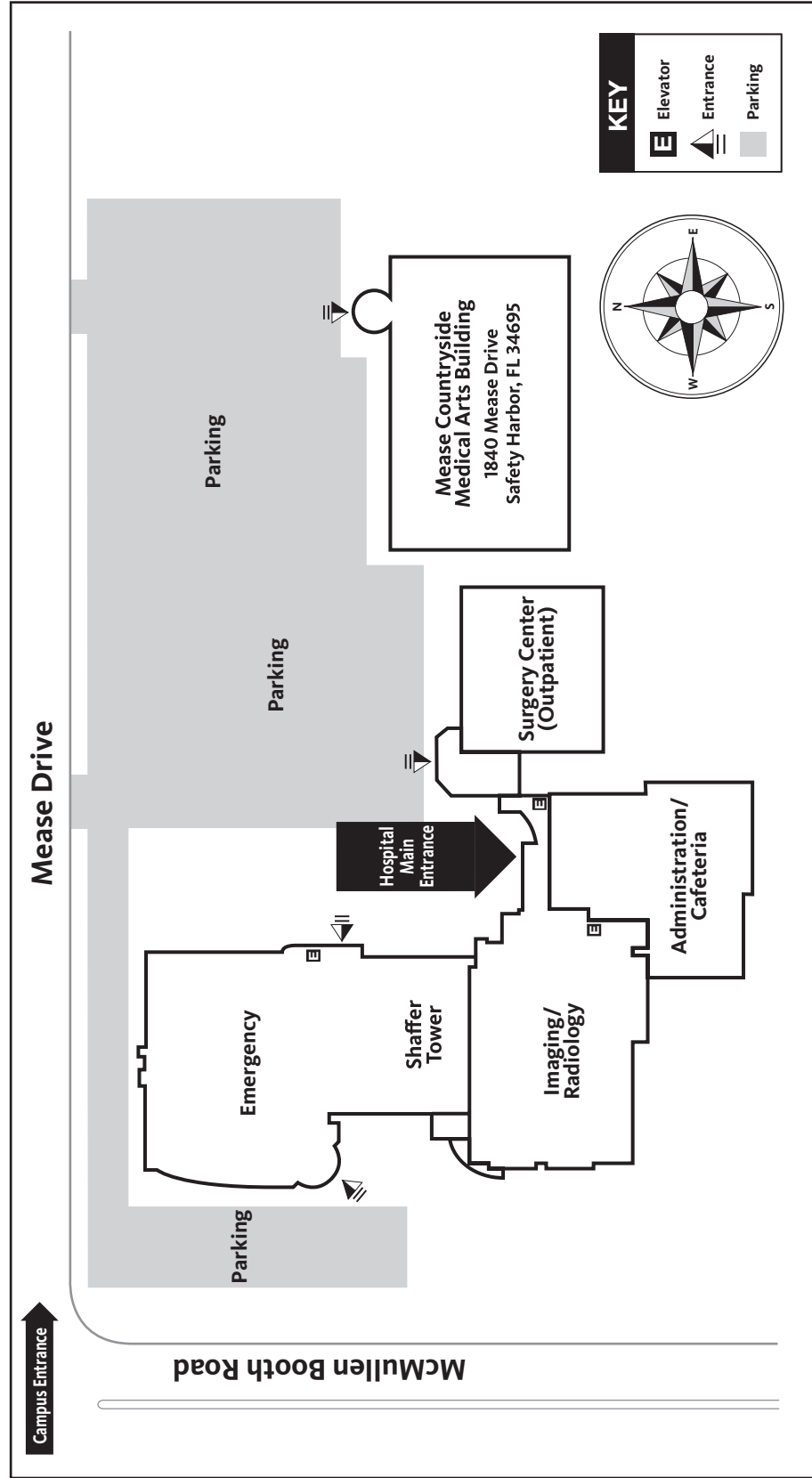
General Information

How to Get Here



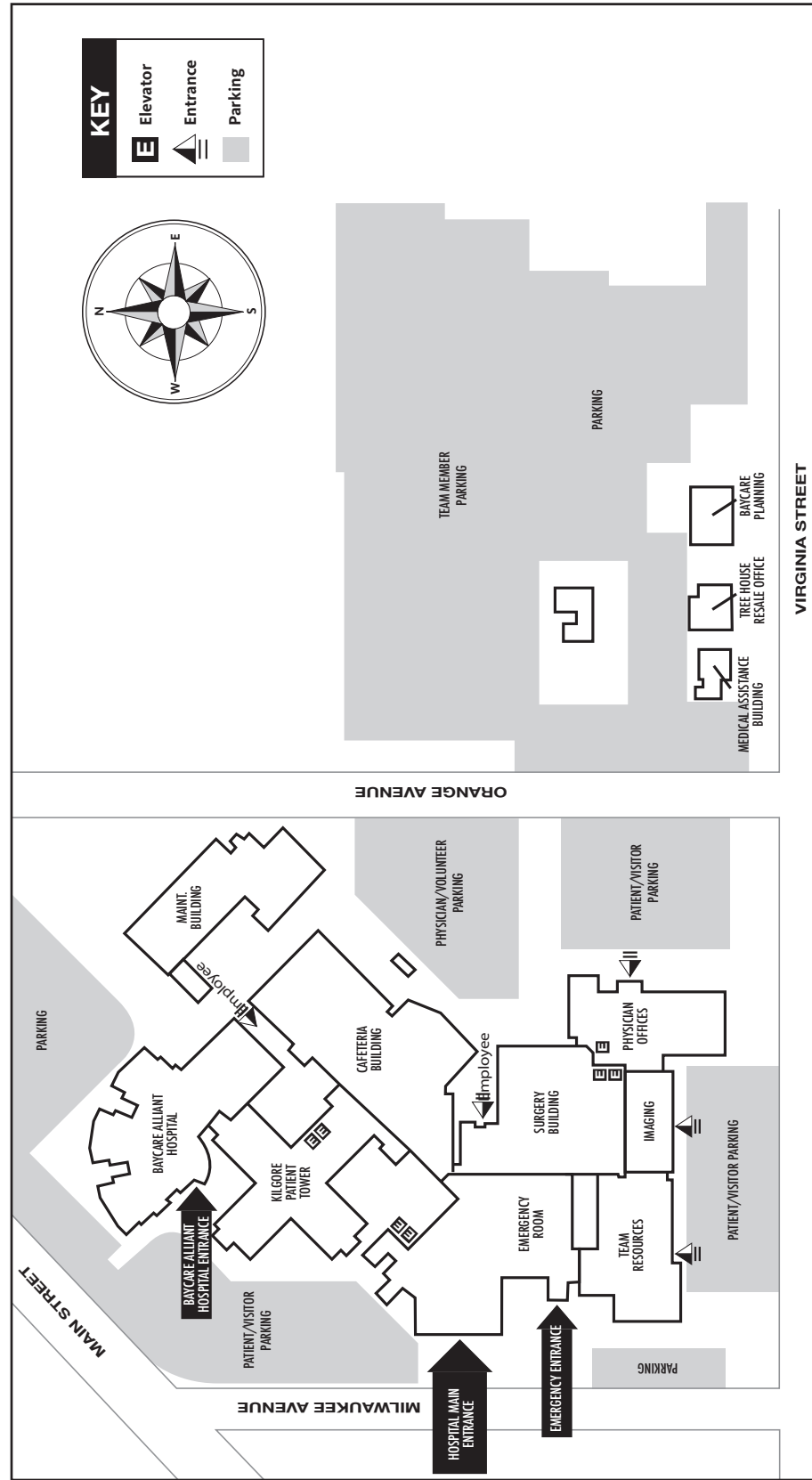
General Information

Mease Countryside Hospital Campus Map



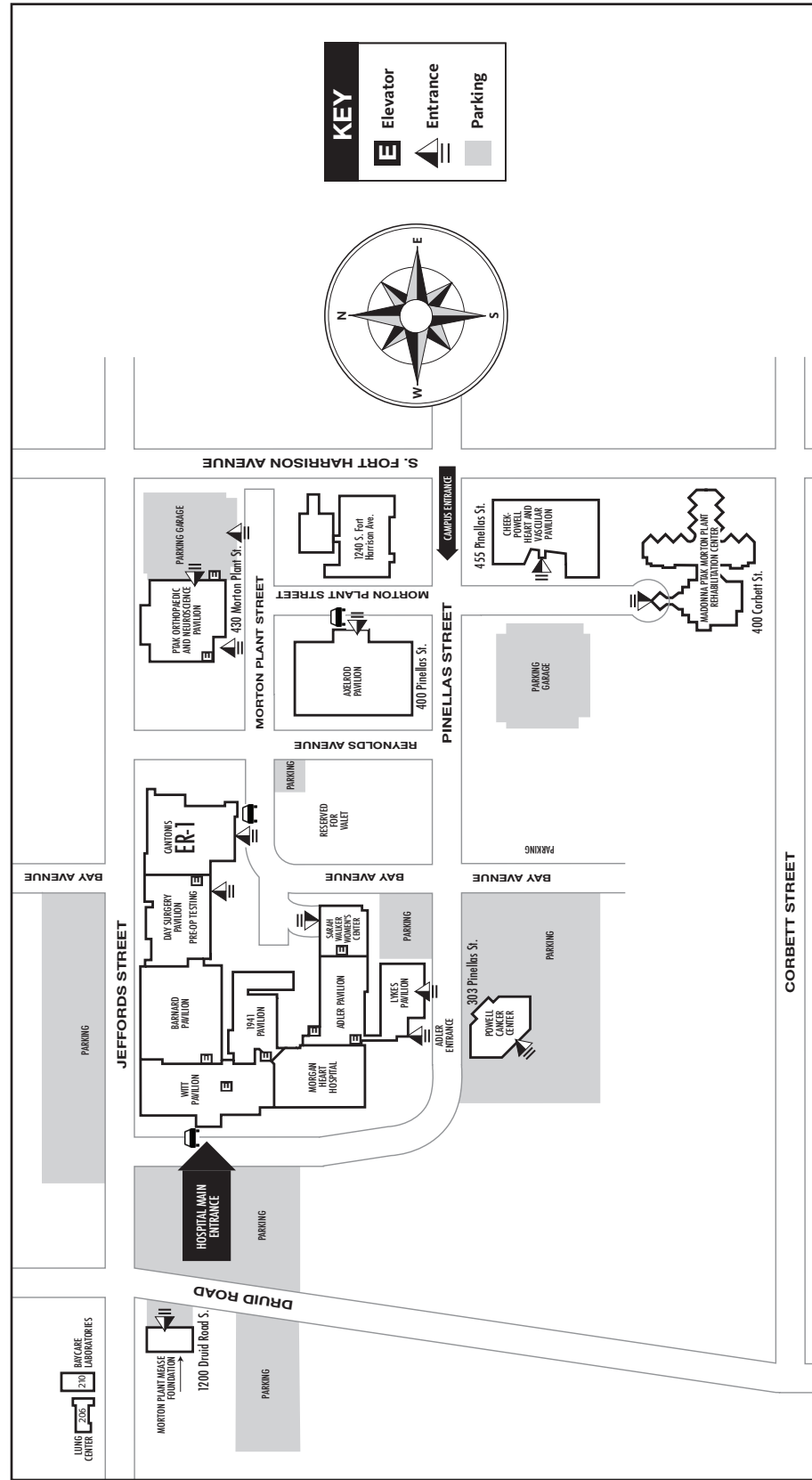
General Information

Mease Dunedin Hospital Campus Map



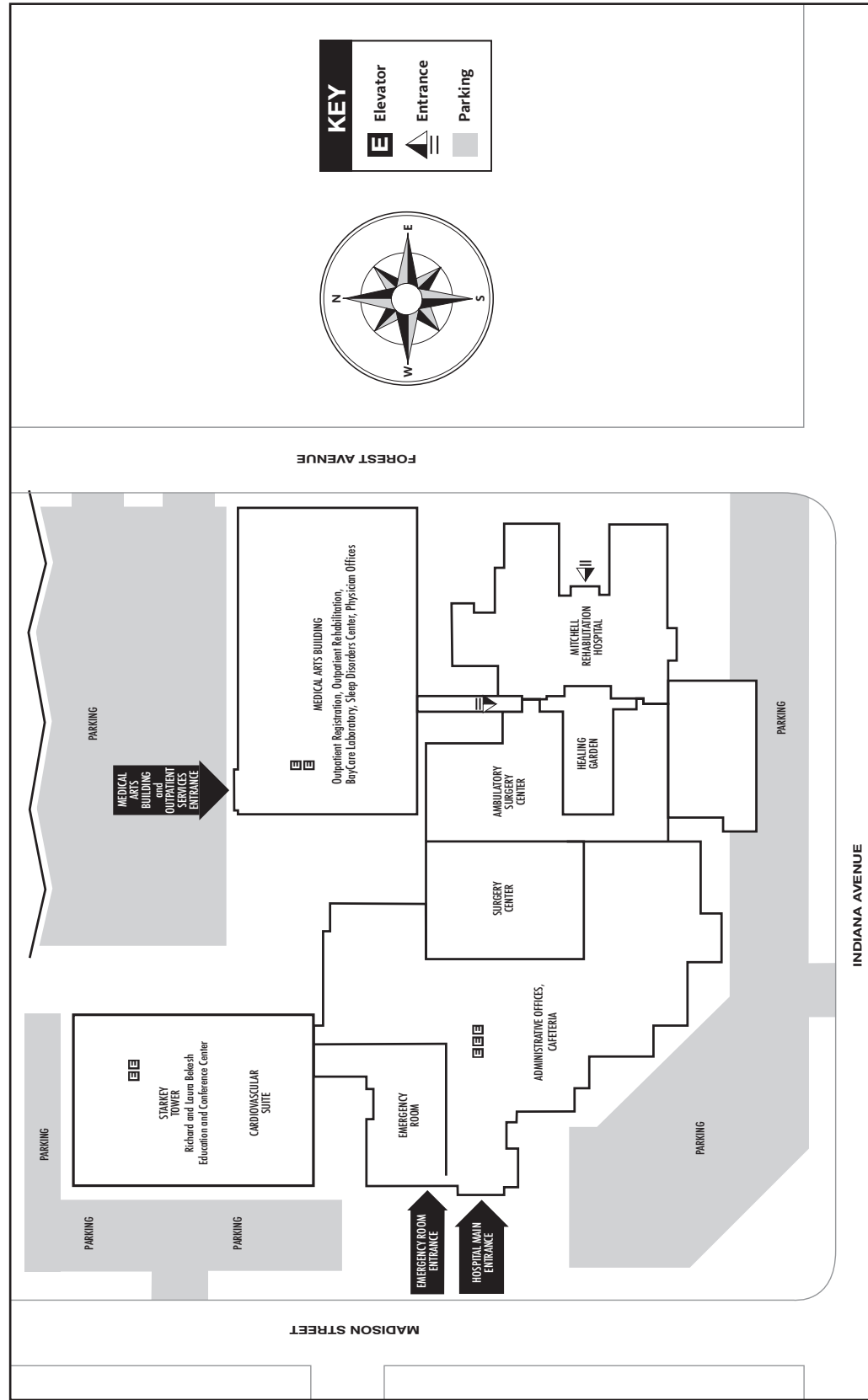
General Information

Morton Plant Hospital Campus Map



General Information

Morton Plant North Bay Hospital Campus Map



General Information

Tobacco-Free Campus

To promote a healthy lifestyle, Morton Plant Mease hospitals are tobacco-free campuses and there are no designated smoking areas. Studies have shown that smoking negatively impacts bone health, including the healing of spinal fusions. If you or a loved one smoke, you might want to consider stopping prior to your surgery. If you need a nicotine patch for your stay, please let your physician know and one will be ordered.

In addition to talking to your doctor about options, free resources include Quitnow at QuitNow.net/Florida or 1-877-u-can-now (877-822-6669).

Meet Your Spine

The Normal Spine

Important Structures of the Spine

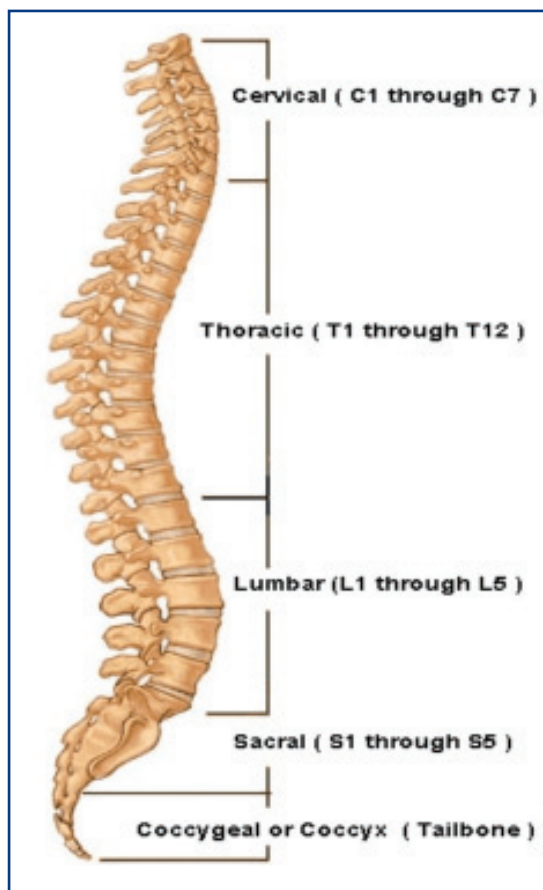
Typical Spine Surgeries

Chapter Two: Meet Your Spine

Meet Your Spine

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 about freely and to 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 could not move any part of your body, and your organs could not 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.

Meet Your 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 when 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.

Meet Your Spine

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 upon 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 one on top of the 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 to 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 is very moist because it has high water content. The water content is what helps the disc act like a shock absorber – somewhat like a waterbed mattress.



Facet Joints

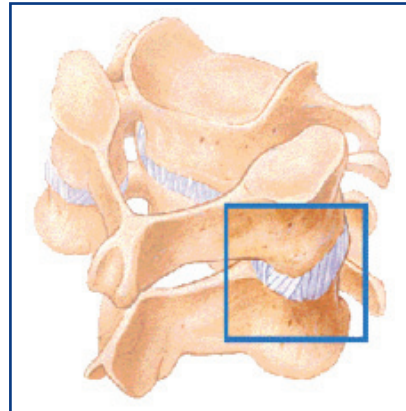
The spinal column has joints (just like the knee, elbow, etc.) called facet joints. The facet joints link the vertebrae together and give them the flexibility to move against each other. The facets are the “bony knobs” that meet between each vertebra. There are two facet joints between each pair of vertebrae, 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.

Meet Your Spine

Important Structures of the Spine (continued)

Neural Foramina

The spinal cord branches off into 31 pairs of nerve roots, which 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; 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 stack 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

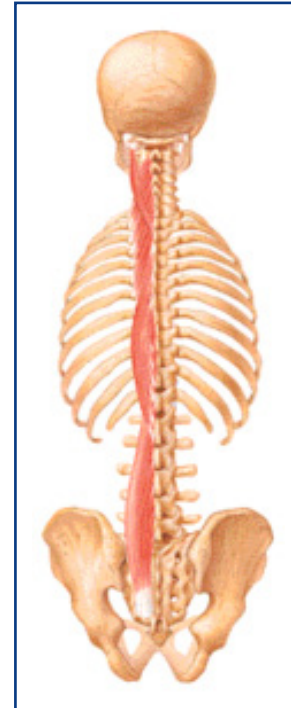
The nerve fibers in your spinal cord branch off to form pairs of nerve roots that travel through the small openings between your vertebrae. The nerves in each area of the spinal cord connect to specific parts of your body. This is why damage to the spinal cord can cause paralysis in certain areas and 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 to 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 would not be able to function.

Meet Your Spine

Important Structures of the Spine (continued)

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 are in spasm after injury to other parts of the spine. A muscle spasm is experienced when your muscle tightens up and will not 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).



Meet Your Spine

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. To secure the bone or graft, screws and a plate are used.

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.

Meet Your Spine

Typical Spine Surgeries (continued)

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 is 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.

Total Disc Replacement

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

Reference used: A Manual of Orthopedic Terminology- Carolyn Taliaferro Blauvelt and Fred T. Nelson, MD, FACS, FAAOS. C.V. Mosby Company 1981.

If you have any specific questions about your surgery, please feel free to contact your physician. You can also refer to your Krames Patient Education Guide for your specific surgery. Also there are several Web sites that also might be helpful. Your surgeon can refer you to those.

Getting Ready for Surgery

Medical History, Physical Exam

Insurance Coverage

Health Care Directives

Discharge Planning

Chapter Three: Getting Ready for Surgery

Getting Ready for Surgery

Medical History, Physical Exam

No surgical procedure can take place without us first taking a good look at your overall health. In order for your spine surgeon to do his or her job to the best of his or her ability, your surgeon needs to know about your medical history. The surgeon also needs to ensure that you are healthy enough to undergo spine surgery. Your primary care physician or your surgeon will examine you to determine your current health status.

You may be directed to continue taking any general health medications up until the day of your surgery. Conversely, you may need to stop taking certain medicines before checking into the hospital. **Please talk with your doctor about which medicines to take, and which to stop, before your surgery.**

It is very important that you tell your physician about any medicine 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 is important for you to understand your benefits before undergoing surgery. Call your insurance provider to find out exactly what your plan does and doesn't cover.

Getting Ready for Surgery

Health Care Directives

A health care directive (also known as a living will) gives a person of your choice the power to act on your behalf during any medical emergency you may suffer. This document is used to ensure that your wishes are followed even if you are no longer able to communicate them yourself.

A health care directive goes into effect when:

- You are in a coma or near death
- You cannot communicate your wishes through speech, in writing or by gestures

If you don't yet have a living will, you may request one when you are being admitted to the hospital. Just ask an admissions representative for a living will form.

Since the medical team must know of your medical directives in order to enforce them, **please bring a copy of your living will to the hospital with you.** It will become part of your records.

Getting Ready for Surgery

Discharge Planning

Our goal is to have you ready to go home after your hospital stay. After all, that is where we would all like to be! However, there may be occasions when you need to have further rehabilitation. Planning for discharge is important. We will work with you and your family to develop a discharge plan that will help you make discharge arrangements before surgery.

Home Health Care

Some patients may need help beyond what family and friends can provide. Home health workers can bridge that gap. These include physical and occupational therapists, home health aides and nurses. Home health workers 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 returning 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 social worker will discuss your options with you.

Talk with professionals in your surgeon's office and ask them to identify a facility that's right for you.

Facility Name

Facility Telephone Number

- | | |
|----------|--------------|
| 1. _____ | () _____ |
| 2. _____ | () _____ |
| 3. _____ | () _____ |

Caring for Yourself—Pre-surgery Preparations

Preparing Your Home for Your Return

What to Pack

If You Live Alone

The Day Before Your Surgery

The Morning of Your Surgery

Chapter Four: Caring for Yourself—Pre-Surgery Preparations

Caring for Yourself—Pre-surgery Preparations

Preparing Your Home for Your Return

Homecoming should be a joyful experience for you. To make the transition from hospital or rehabilitation center to home as happy, and as safe, as possible, you may want to rearrange some of the items in your house. Consider the following:

- Move frequently used items in the kitchen, bathroom, bedroom and workshop to tabletops, or to any surfaces sitting roughly at waist level. The items you'll probably move include shoes, clothing, food, 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. Eliminate clutter around the house.
- Remove all throw rugs from your floors.
- Are your stair railings secure? If not, fix them. If you're constructing a new railing on your stairs, make sure it extends a few inches past the end of the staircase.
- If your bathroom isn't on the first floor of your home, you may want to consider some temporary relief options. For example, you may want to purchase a portable commode.
- Install grab bars in your bathtub or shower. You may also want to place them by the toilet.
- Purchase a tub bench.
- Apply adhesive slip strips to your tub or shower.
- Consider using liquid soap (in a dispenser) rather than bar soap.
- Place a phone in your primary sitting area, and near your bed. You'll find cordless phones very convenient. If you are home alone, you should carry a cordless phone in your walker bag or fanny pack. In case of an emergency, you'll be able to call for help.
- Use a rolling kitchen cart to move heavy or hot items.
- Select a chair that you will 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 sit flat on the floor, and should place your knees lower than your hips.
- Install nightlights in each room. Try to buy the type with sensors that automatically turn the lights on at sundown.

Caring for Yourself—Pre-surgery Preparations

What to Pack

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

Bring to the Hospital

- Nonskid, closed-heel-to-toe slippers, sneakers or walking shoes
- Loose-fitting shorts and shirts for a few days
- A toothbrush, toothpaste, mouthwash or denture supplies
- A comb or hairbrush
- Shaving supplies and cosmetics
- A container of antibacterial wipes for the skin

Please bring no more than \$5 cash to the hospital with you. Please leave your jewelry and other valuables at home. Also, we prefer that you wear a hospital gown rather than your own nightgown or pajamas.

Bring to the Rehabilitation Center (if applicable)

- Loose-fitting slacks, sweatpants, shorts or house dresses
- Comfortable shirts or blouses
- Pajamas or nightgowns
- Socks
- Underwear
- A light jacket or sweater
- A container of antibacterial wipes
- A favorite snack (you can place them in Ziploc® bags)
- Pictures of your loved ones
- A headset and tapes of your favorite music
- Books and magazines

Caring for Yourself—Pre-surgery Preparations

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 to have your paper and mail delivered to your door rather than to your curb.
- 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 prior to your surgery. Please know that your surgery can be delayed if you don't follow these instructions.
- Report any changes in your physical condition to your physicians. A number of problems may require the postponement of your surgery. These include a sore throat, a cold, a fever, dental problems, difficulty urinating, and skin conditions such as rashes or abrasions.

If you have any questions about whether you are healthy enough to undergo surgery, please ask a member of your health care team.

The Morning of Your Surgery

- If you have been instructed to take medications in the morning, swallow them with only a small sip of water. Do not drink or eat anything else unless instructed by your doctor.
- Bathe or shower, if you like.
- Leave yourself plenty of time to arrive at the hospital as directed.

Surgery and Recovery

Chapter Five: Surgery and Recovery

At the Hospital

Keeping You Safe

About Anesthesia

Managing Your Pain

Pain Medications

Patient-Controlled Analgesia (PCA)

Medication Side Effects

Nutrition

Nutrition Supplements and Other Medications

Preventing Complications

Postoperative Respiratory Exercises

Patient Care Plan - Cervical Surgery

Patient Care Plan - Lumbar Surgery (Microdiscectomy, Decompression, Laminectomy)

Patient Care Plan - Lumbar Fusion Surgery

Cervical Surgery - The Cervical Collar

Lumbar Surgery - The Brace

Spine Precautions

Body Mechanics Principles After Surgery

When Can I Go Home?

Equipment After Surgery

Where to Find Equipment

My Medical Questions

Notes

A Final Note

Surgery and Recovery

At the Hospital

Being in the hospital is probably an unusual experience for you. Read this short list of procedures to help acquaint yourself with the hospital routine.

When you first arrive at the hospital, you will meet with a nurse. He or she will help review what you can expect before and after surgery. From there:

- You will receive a hospital gown to wear.
- You will be admitted to the pre-surgery area. (Friends and family members may wait with you there, if you choose.)
- You will be wheeled via stretcher to the surgery holding room, where you will be introduced to your surgical team. You will then be taken into surgery. Any family or friends visiting you will be directed to the surgery waiting room.
- You will undergo surgery. This process can vary in length.
- After the procedure, you will be placed on your bed and taken to the Post-Anesthesia Care Unit until you wake up. The waking-up process usually takes from one to two hours. During this time, your surgeon will talk with waiting family and friends.
- The anesthesiologist and recovery room nurse will care for you as you awaken. Depending on the anesthesia used, you may wake up wearing an oxygen mask. You may also experience temporary blurred vision, dry mouth, chills or pain. Your nurse will monitor your vital signs and help make you as comfortable as possible.
- When you are fully awake and medically stable, you will be transferred to the Spine floor.

Surgery and Recovery

Keeping You Safe

Keeping you safe is our top priority. We will regularly ask you to identify yourself by stating your name and birth date and comparing it to your identification armband. This ensures we provide the right treatment, tests and medications during your stay with us.

One of our goals is to prevent the spread of infection to our patients. Your health care team will wash hands with soap and water or use alcohol gel before and after each patient encounter. If you have concerns that your health care provider has not washed his or her hands, please speak up and ask them. Your physician will also order I.V. 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 will ask you to be involved in the process by identifying your surgical site and confirming the site that your surgeon marks.

Neuromonitoring

Your physician might have ordered neuromonitoring for your surgical procedure. Neuromonitoring is a process performed by a specialist called a neurophysiologist who is part of the surgical spine team. Electrodes are placed on the 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.

Surgery and Recovery

About Anesthesia

Anesthesia is a type of medication that causes you to lose sensation, therefore, you feel no pain after anesthesia is administered. This loss of sensation may or may not be accompanied by the loss of consciousness.

An anesthesiologist or certified registered nurse anesthetist takes responsibility for giving you anesthesia. The doctor 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	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. General anesthesia is administered by injection or by inhaling it into your respiratory system.	Allows patients to sleep through extensive surgical procedure.	Side effects include a sore throat, headache, hoarseness and nausea.

Surgery and Recovery

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 doctor or nurse.

As a patient, we expect that you will:

- Assist your health care profession in assessing your pain. Your nurses will ask you to “rate” your pain on the scale noted below in addition to assessing your level of sedation (sleepiness), vital signs, etc.
- Discuss pain relief options with your health care professional 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 health care professional about any worries you have about taking pain medications.

Measuring Your Pain

To help us measure your pain, we will ask you to rate it before and after a dose of pain medication. Rate your pain on the 0-10 point scale drawn below.

Standard Pain Scale

0	1	2	3	4	5	6	7	8
No Pain		Mild Pain		Moderate Pain		Severe Pain		Very Severe Pain
Nada de Dolor		Poco Dolor		Dolor Moderado		Mucho Dolor		

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
Nada de Dolor	Poquito Dolor	Poquito Mas de Dolor	Mas Dolor Dolor	Mucho Dolor	Peor Dolor

Surgery and Recovery

Pain Medications

We are committed to treating and managing each patient's pain after spine surgery. There are different methods in which we give the medications to treat your pain.

- **I.V.:** Dilaudid, Morphine and Fentanyl are the most common pain medications used immediately after surgery. For the first 12-24 hours after your surgery, you will receive narcotics given in your I.V. or through the PCA pump (see below). Additionally, you may receive muscle relaxants that will increase your comfort level.
- **Oral:** Once you are able to eat food, we will start you on oral medication and use the I.V. medications if needed. Some commonly used pain pills for spine surgery are Norco (Hydrocodone) and Percocet (Oxycodone).

The most common side effects associated with narcotics used for pain include: decreased respirations/breathing, drowsiness, nausea, vomiting, dizziness, constipation, rash, itching, dry mouth and decreased appetite.

The most common side effects associated with muscle relaxants used for muscle spasms include: drowsiness, headache, confusion, dizziness, nausea and vomiting.

Patient-Controlled Analgesia (PCA) (If ordered by your surgeon)

Purpose

To allow you to control the amount of pain medication you receive. This is through the intravenous (I.V.) tube in your vein.

Instructions

- The nurse will demonstrate how to use the pain control button on the pump to receive your pain medication.
- The pump makes a “beep” noise when you press the button for your pain medication. Listen for this sound when you press the button to make sure you pressed the button correctly. The pump also has an alarm that might beep. If the alarm sounds, call the nurse.
- The pump is set so you cannot give yourself any additional medication until the last dose takes effect. This time limit is usually 6 to 10 minutes after previous dose. It takes 6 to 10 minutes for the medication to work.
- Keeping the pain in control will help you get well faster. Use the pain control button a couple of times during the 10 to 15 minutes before you are going to turn, get out of bed, or cough and deep breathe. This practice will prevent severe pain and help you to comfortably assist yourself.
- All surgical pain cannot be taken away, but you can expect to be made comfortable. Comfortable means about 2 or 3 on a pain scale of 0 to 10, with 0 meaning no pain and 10 meaning the worst pain imaginable. Tell the staff about any pain that will not go away. They can change the pump settings to control your pain.

Surgery and Recovery

Patient-Controlled Analgesia (PCA) (continued)

- Call the nurse for any of the following: nausea, vomiting, itching or difficulty in passing urine or bowel movements.
- To prevent over-medication, only you are to press the pain control button. Sleepiness and the lack of desire to press the button is a sign that you are getting enough medication,
- Do not use other medications that are not ordered by the doctor, including street drugs or alcohol; they may put you at risk for life-threatening problems.
- Don't worry about getting "hooked" on pain medication. The amount of pain medicine you give yourself is about one-tenth the amount of medication you would receive if the nurse were to give you a pain shot.
- The pump that delivers your medicine is an electrical device and must travel with you wherever you go.
- **Remember:** Pain prevention and control brings short and long-term relief and healing benefits. Be sure to report any pain to your doctor or nurse.

PCA Content Reference

Pain Control After Surgery, A Patient's Guide, AHCPR Pub. No. 92-0021, Rockville, MD
 Agency for Health Care Policy and Research Public Health Service,
 U.S. Department of Health & Human Services, February 1992.
 Patricia Donnelly, Coordinator, Clinical Nursing Education
 (Updated by Margo McMonis, Coordinator, Clinical Nursing Education)

Pain Management Feedback

People experience pain in different ways; therefore it is important that you give members of your health care team feedback on 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 (throbbing, aching, shooting, cramping, etc.).
- You will not be totally pain-free after surgery and during the recovery period.

Surgery and Recovery

Other Pain Management Treatments – Non-Medication Measures to Treat Pain

While medications may help control some of your pain there are other methods you will 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 for icing near the surgical area, using it 20 minutes on and 20 minutes off.
- **Exercise:** To increase blood flow and prevent increased pain, swelling and blood clots, you will be encouraged to do simple exercises such as ankle pumps (move ankles up and down in circles in both directions.) You will be up walking with the physical therapy and nursing staff 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 channel on TV where you will find pleasant scenes and music to help with your relaxation exercise. As the mind is occupied by the scene, stress levels diminish as your muscles and mind relax. This has been proven to greatly reduce pain.
- **Music:** The use of medication is often accompanied with unwanted side effects. 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 reduces intensity of pain as well as the amount of medication needed in acute post surgical pain. It is certainly non-invasive, so give it a try! Please feel free to bring your favorite music in and listen as you recover.
- **Pet Therapy:** Pet therapy has been shown to increase pain tolerance, reduce stress, lower blood pressure, and brings a happy and relaxed feeling to those experiencing pain (see hospital pet visitation policy).
- **Distraction:** No, the pain is not in your head. However YOU are still 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.

Surgery and Recovery

Importance of Controlling Pain

One of the myths that exist about pain is that it should not be treated but experienced. However, pain offers no known benefits. If it is not treated, pain 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, under-treated pain may result in increased fear, anxiety or lack of sleep.

- **Remember:** Pain prevention and control brings short and long-term relief and healing benefits. Be sure to report any pain to your doctor or nurse.

At-Home Pain Control

Know your pain control plan.

- Before leaving the hospital, you will be given a prescription for pain medication. Have it filled. (If you are given a prescription by your doctor before surgery, have it filled before you come to the hospital.) Take as ordered.
- Follow 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 doctor.
- If your pain doesn't go away after taking your medicine, or if it gets worse, call your doctor.
- When your pain lessens, you may switch to over-the-counter pain medication that your doctor 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 postsurgical nutrition.)

Surgery and Recovery

Managing Your Pain (continued)

Medication Side Effects

This chart contains information about the most common side effects of the medications that you may take during your hospital stay. If you have questions or concerns, please ask your nurse.

Reason for Medication	Medication Names - Generic (Brand)	Most Common Side Effects
Pain relief	<ul style="list-style-type: none"> ▪ Fentanyl ▪ Hydrocodone/Acetaminophen (Vicodin®, Lortab®) ▪ Hydromorphone (Dilaudid®) ▪ Morphine ▪ Norco ▪ Oxycodone ▪ Oxycodone/Acetaminophen (Percocet®) ▪ Oxycontin ▪ Tramadol (Ultram®) 	<ul style="list-style-type: none"> ▪ Dizziness/drowsiness ▪ Constipation ▪ Queasiness/vomiting ▪ Rash ▪ Confusion
Queasiness or vomiting	<ul style="list-style-type: none"> ▪ Compazine ▪ Ondansetron (Zofran®) ▪ Promethazine (Phenergan®) ▪ Reglan ▪ Scopolamine patch 	<ul style="list-style-type: none"> ▪ Headache ▪ Constipation ▪ Tiredness/drowsiness
Heartburn or reflux	<ul style="list-style-type: none"> ▪ Esomeprazole (Nexium®) ▪ Famotidine (Pepcid®) ▪ Lansoprazole (Prevacid®) ▪ Omeprazole (Prilosec®) ▪ Pantoprazole (Protonix®) ▪ Ranitidine (Zantac®) 	<ul style="list-style-type: none"> ▪ Headache ▪ Diarrhea
Lowers cholesterol	<ul style="list-style-type: none"> ▪ Atorvastatin (Lipitor®) ▪ Lovastatin (Mevacor®) ▪ Pravastatin (Pravachol®) ▪ Rosuvastatin (Crestor®) ▪ Simvastatin (Zocor®) 	<ul style="list-style-type: none"> ▪ Headache ▪ Muscle pain ▪ Upset stomach
Blood thinner (to stop or break down blood clots)	<ul style="list-style-type: none"> ▪ Enoxaparin (Lovenox®) ▪ Dalteparin (Fragmin®) ▪ Heparin ▪ Warfarin (Coumadin®) 	<ul style="list-style-type: none"> ▪ Risk of bleeding
Stops blood clots from forming	<ul style="list-style-type: none"> ▪ Aspirin ▪ Clopidogrel (Plavix®) 	<ul style="list-style-type: none"> ▪ Upset stomach ▪ Risk of bleeding
Heart rhythm problems	<ul style="list-style-type: none"> ▪ Amiodarone (Pacerone®) ▪ Digoxin (Digitek®) 	<ul style="list-style-type: none"> ▪ Dizziness ▪ Headache
Lowers blood pressure and heart rate	Calcium channel blockers <ul style="list-style-type: none"> ▪ Diltiazem (Cardizem (CD) ®, Cartia XT®, Tiazac®, Dilacor XT®) Beta blockers: <ul style="list-style-type: none"> ▪ Atenolol (Tenormin®) ▪ Carvedilol (Coreg®) ▪ Metoprolol (Lopressor XL®) 	<ul style="list-style-type: none"> ▪ Headache ▪ Dizziness/drowsiness
Lowers blood pressure	ACE inhibitors, angiotensin receptor blockers <ul style="list-style-type: none"> ▪ Benazepril, Captopril, Enalapril, Lisinopril, Quinapril, Ramipril ▪ Irbesartan (Avapro®) ▪ Olmesartan (Benicar®) ▪ Valsartan (Diovan®) 	<ul style="list-style-type: none"> ▪ Dizziness ▪ Cough

Surgery and Recovery

Medication Side Effects (continued)

This chart contains information about the most common side effects of the medications that you may take during your hospital stay. If you have questions or concerns, please ask your nurse.

Antibiotic for bacterial infections	<ul style="list-style-type: none"> • Amoxicillin/Clavulanate (Augmentin®) • Cefazolin (Ceftin®) • Cefotetan or Cefoxitin • Clindamycin (Cleocin®) • Ertapenem (Invanz®) • Levofloxacin (Levaquin®) • Metronidazole (Flagyl®) • Piperacillin/Tazobactam (Zosyn®) • Vancomycin (Vancocin®) 	<ul style="list-style-type: none"> • Upset stomach • Diarrhea • Rash/flushing • Headache
Helps with inflammation	<ul style="list-style-type: none"> • Celecoxib (Celebrex®) • Dexamethasone (Decadron®) • Hydrocortisone (Cortef®) • Ibuprofen (Motrin®) • Ketorolac (Toradol®) • Prednisone 	<ul style="list-style-type: none"> • Upset stomach • Sleeplessness
Calms nerves or makes you sleepy	<ul style="list-style-type: none"> • Diazepam (Valium®) • Lorazepam (Ativan®) • Midazolam (Versed®) • Oxazepam (Serax®) • Temazepam (Restoril®) • Zolpidem (Ambien®) 	<ul style="list-style-type: none"> • Dizziness/drowsiness • Headache • Confusion

Surgery and Recovery

Nutrition

Nutrition During Hospitalization

Soon after surgery, you will 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 are 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 is important to eat foods high in protein and carbohydrates to promote the healing process.

Preventing Constipation

Prior to surgery, during your hospitalization and post-operatively, you will be prone to constipation. The first way to prevent constipation is to eat a high fiber diet and drink at least six, 8 oz. glasses of water each day. Walking is an important part of your recovery and will also help you avoid constipation. During hospitalization, you will be given stool softeners daily. Again, it is 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 (you can buy these over the counter) until you are weaned off the narcotics.

Nutrition After Hospitalization

After you leave the hospital, your diet will continue to be one of the most important factors in the healing process.

Surgery and Recovery

What You Need to Know About Nutrition

“MyPlate” is based on the 2010 Dietary Guidelines for Americans to help consumers make better food choices.



“MyPlate” illustrates the five food groups that are the building blocks for a healthy diet, using a familiar image – a place setting for a meal. Before you eat, think about what goes on your plate or in your cup or bowl. Here is just a snapshot of how you can eat healthy.

- 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 your calcium-rich foods.

Nutrients to Help You Heal

Nutrients can be found in many sources and can contribute to speeding your recovery, including:

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

Surgery and Recovery

What You Need to Know About Nutrition (continued)

Calcium

For your bone health and general well-being, plan on getting a minimum of 1,200 to 1,500mg of calcium every day. 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—read the labels

Tips:

- Drinking too many soft drinks may keep your body from using the calcium found in foods.
- You can meet your day's requirement for calcium by consuming three 8-ounce glasses of milk, 1 ounce of reduced-fat cheese and one serving of leafy green vegetables.

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, potatoes, cantaloupe

Surgery and Recovery

Nutrition Supplements and Other Medicines

Preventing Excessive Bleeding and Helping Fusion Healing

A healthy diet is an important part of promoting strong bones and fusion healing. A multivitamin tablet daily, along with calcium plus vitamin D (500 mg. tablet three times a day), is also recommended to help accomplish this goal.

There are medications and herbal supplements that you need to AVOID for at least one week prior to surgery and after surgery, until your surgeon approves their use. These medications/supplements may cause excessive bleeding prior to surgery and if you had a fusion prevent the fusion from effectively healing after surgery

Medications (classified as non-steroidal, anti-inflammatory drugs) to avoid include:

- | | |
|-------------|--------------------------|
| ■ Advil® | ■ Indocin® |
| ■ Aleve® | ■ Mobic® |
| ■ Anacin® | ■ Motrin® |
| ■ Aspirin® | ■ Naprosyn® |
| ■ Feldene® | ■ Toradol® |
| ■ Daypro® | ■ Voltaren® |
| ■ Ibuprofen | ■ Certain cold medicines |

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

Also, avoid all herbal supplements one week prior to surgery, including green tea, fish oil, Omega-3 supplements, etc. If you are not taking Coumadin or aspirin, you may restart these herbal supplements when you return home unless otherwise noted by your surgeon. If you are taking **Coumadin**, please talk to your primary care doctor, cardiologist or surgeon as to the appropriate time to stop and restart this medication.

Surgery and Recovery

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.

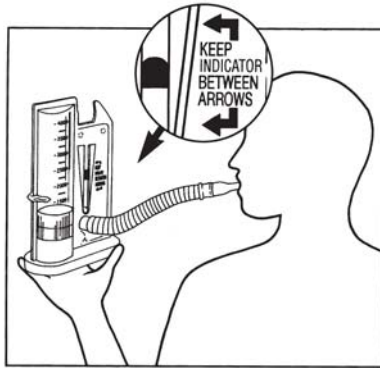
- Nurses will measure your blood pressure, temperature and pulse.
- Health care workers will regularly check your extremities for movement, feeling and proper circulation.
- To improve circulation and strength, exercise.
- Wear white elastic socks (called TED stockings) to support your muscles, promote circulation and prevent blood clots.
- Use an incentive spirometer to help your respiratory system. Also perform deep breathing and coughing exercises.
- Your dressing and incision will be checked regularly.
- You will have an I.V. for one or two days. It is important to drink six to eight glasses of water after your surgery and after your I.V. is removed. If you feel too nauseous to drink, talk to your nurse.
- Your nurse will order a regular diet when you have bowel sounds and can pass gas.
- Your inactivity, combined with your pain medication, can cause constipation. To help avoid this state, drink plenty of fluids, include fiber in your diet and increase your activity as you can.

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

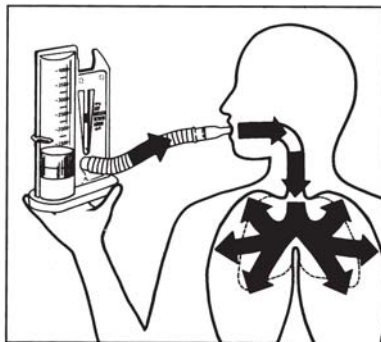
Surgery and Recovery

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 several times a day, preferably every hour while awake. If you feel lightheaded or dizzy, you may be overdoing it. Stop and rest. Resume deep breathing when you feel better.



Exhale completely, then close your lips tightly around the mouthpiece. Inhale slowly and deeply, keeping the small, blue ball between the two arrows.



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

Surgery and Recovery

Patient Care Plan – Cervical Surgery

Day of Surgery	
<p>Activity Plan</p> <ul style="list-style-type: none"> Depending of the type of surgery, you will be encouraged to get out of bed or remain in bed, and be encouraged to turn from side to side. Laying on your back is also acceptable. <p>Diet</p> <ul style="list-style-type: none"> You will be given small sips of water and a few ice chips. Once you can tolerate clear liquids without nausea and/or vomiting, you can have a regular diet prescribed by your physician. <p>Pain Control</p> <ul style="list-style-type: none"> Use the pain scale. Use pain medication and muscle relaxants as needed. Tell the nurse the effects of pain medication. Use other non-drug measures found in this book on page 31. Throat lozenges available upon request. <p>Breathing Exercises (Do 10 times each hour while awake.)</p> <ul style="list-style-type: none"> Cough. Deep breathe. Use incentive spirometer. Use oxygen if ordered. 	<p>Other equipment in your room or attached to your body may include:</p> <ul style="list-style-type: none"> You will have an I.V. You might have a drain from your incision site. You might have a foley catheter; if not, ask for assistance when getting out of bed. White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots You might be wearing a cervical collar if your physician ordered one. <p>Things to Report to the Nurse</p> <ul style="list-style-type: none"> Difficulty breathing/swallowing Pressure areas New onset or increase in intensity of pain Changes in sensation or movement <p>Review Discharge Plan</p> <ul style="list-style-type: none"> Depending on your surgeon, some patients go home the same day.

Surgery and Recovery

Patient Care Plan – Cervical Surgery (continued)

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 - we recommend that all meals be eaten in the chair.

Diet

- You should be on a regular diet prescribed by your physician - please let the nurse know if you have any nausea.
- Pain medication and anesthesia can cause constipation - we encourage you to drink up to six glasses of water daily in addition to the stool softeners we will give you.

Pain Control

- Use the pain scale.
- Use pain medication and muscle relaxants as needed.
- Tell the nurse the effects of pain medication.
- Use other non-drug measures found in this book.
- Common side effects of narcotics include nausea, vomiting, dizziness, constipation, rash, itching, dry mouth, decrease in appetite and decreased respirations/ breathing.
- Common side effects of muscle relaxants include drowsiness, headache, confusion, dizziness, nausea and vomiting.

Breathing Exercises

(Do 10 times each hour while awake.)

- Cough.
- Deep breathe.
- Use incentive spirometer.
- Use oxygen if ordered.

Other equipment in your room or attached to your body may include:

- Your I.V. will be “capped” when you are taking adequate fluids.
- If you have a drain, it might be removed.
- If you have a foley catheter it will be removed; ask for assistance when getting up to use the bathroom.
- White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots
- You might be wearing a cervical collar if your physician ordered one.

Things to Report to the Nurse

- Difficulty breathing/swallowing
- Pressure areas
- New onset or increase in intensity of pain
- Changes in sensation or movement

Review Discharge Plan

- Most patients go home this day
- Discuss with your health care team your:
 - Discharge destination
 - Equipment needed at home if any
 - Home support
 - Home health if ordered
- Discharge Education
 - Pain management
 - Wound care/bathing
 - Activities and restrictions
 - Medications
 - Cervical collar care/instructions if ordered
 - Follow-up doctor's appointment/home care needs

Surgery and Recovery

Patient Care Plan – Lumbar Surgery (Microdiscectomy, Decompression, Laminectomy)

Day of Surgery	
<p>Activity Plan</p> <ul style="list-style-type: none"> Depending of the type of surgery, you will be encouraged to get out of bed or remain in bed, and be encouraged to turn from side to side. Laying on your back is also acceptable. <p>Diet</p> <ul style="list-style-type: none"> You will be given small sips of water and a few ice chips. Once you can tolerate clear liquids without nausea and/or vomiting, you can have a regular diet prescribed by your physician. <p>Pain Control</p> <ul style="list-style-type: none"> Use the pain scale. Use pain medication and muscle relaxants as needed. Tell the nurse the effects of pain medication. Use other non-drug measures found in this book on page 31. <p>Breathing Exercises (Do 10 times each hour while awake.)</p> <ul style="list-style-type: none"> Cough. Deep breathe. Use incentive spirometer. Use oxygen if ordered. 	<p>Other equipment in your room or attached to your body may include:</p> <ul style="list-style-type: none"> You will have an I.V. You might have a drain from your incision site. You might have a foley catheter; if not, ask for assistance when getting out of bed. White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots If your surgeon has ordered a brace for you, it will be fitted after your surgery. See Brace information on page 47. <p>Things to Report to the Nurse</p> <ul style="list-style-type: none"> New onset or increase in intensity of pain Changes in sensation or movement to lower back, buttocks and legs Any drainage felt on your dressing <p>Review Discharge Plan</p> <ul style="list-style-type: none"> Depending on your surgeon, some patients go home the same day. If your surgeon allow you to go home today, you must be able to walk, eat, urinate and have good pain control

Surgery and Recovery

Patient Care Plan – Lumbar Surgery (Microdiscectomy, Decompression, Laminectomy) (continued)

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 - we recommend that all meals be eaten in the chair.

Diet

- You should be on a regular diet prescribed by your physician - please let the nurse know if you have any nausea.
- Pain medication and anesthesia can cause constipation - we encourage you to drink up to six glasses of water daily in addition to the stool softeners we will give you.

Pain Control

- Use the pain scale.
- Use pain medication and muscle relaxants as needed.
- Tell the nurse the effects of pain medication.
- Use other non-drug measures found in this book.
- Common side effects of narcotics include nausea, vomiting, dizziness, constipation, rash, itching, dry mouth, decrease in appetite and decreased respirations/ breathing.
- Common side effects of muscle relaxants include drowsiness, headache, confusion, dizziness, nausea and vomiting.

Breathing Exercises

(Do 10 times each hour while awake.)

- Cough.
- Deep breathe.
- Use incentive spirometer.
- Use oxygen if ordered.

Other equipment in your room or attached to your body may include:

- Your I.V. will be “capped” when you are taking adequate fluids.
- If you have a drain, it might be removed depending on output.
- If you have a foley catheter it will be removed; ask for assistance when getting up to use the bathroom.
- White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots
- If your surgeon has ordered a brace for you, it will be fitted after your surgery. See Brace information on page 47.

Things to Report to the Nurse

- New onset or increase in intensity of pain
- Changes in sensation or movement to lower back, buttocks and legs
- Any drainage felt on your dressing

Review Discharge Plan

- Most patients go home this day
- Discuss with your health care team your:
 - Discharge destination
 - Equipment needed at home if any (i.e., roller walker, 3 in 1 commode)
 - Home support
 - Home health if ordered
- Discharge Education
 - Pain management
 - Wound care/bathing
 - Activities and restrictions
 - Medications
 - Brace/instructions/care if ordered
 - Follow-up doctor's appointment/home care needs

Surgery and Recovery

Patient Care Plan – Lumbar Fusion Surgery

Day of Surgery

Activity Plan

- Depending of the type of surgery, you will be encouraged to get out of bed or remain in bed, and be encouraged to turn from side to side.
- Laying on your back is also acceptable.

Diet

- You will be given small sips of water and a few ice chips.
- Once you can tolerate clear liquids without nausea and/or vomiting, you can have a regular diet prescribed by your physician.

Pain Control

- Use the pain scale.
- Use pain medication and muscle relaxants as needed.
- Tell the nurse the effects of pain medication.
- Use other non-drug measures found in this book on page 31.

Breathing Exercises

(Do 10 times each hour while awake.)

- Cough.
- Deep breathe.
- Use incentive spirometer.
- Use oxygen if ordered.

Other equipment in your room or attached to your body may include:

- You will have an I.V.
- You might have a drain from your incision site.
- You might have a foley catheter; if not, ask for assistance when getting out of bed.
- White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots
- If your surgeon has ordered a brace for you, it will be fitted after your surgery. See Brace information on page 47.

Things to Report to the Nurse

- New onset or increase in intensity of pain
- Changes in sensation or movement to lower back, buttocks and legs
- Any drainage felt on your dressing

Surgery and Recovery

Patient Care Plan – Lumbar Fusion Surgery (continued)

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 - we recommend that all meals be eaten in the chair.

Diet

- You should be on a regular diet prescribed by your physician - please let the nurse know if you have any nausea.
- Pain medication and anesthesia can cause constipation - we encourage you to drink up to six glasses of water daily in addition to the stool softeners we will give you.

Pain Control

- Use the pain scale.
- Use pain medication and muscle relaxants as needed.
- Tell the nurse the effects of pain medication.
- Use other non-drug measures found in this book.
- Common side effects of narcotics include nausea, vomiting, dizziness, constipation, rash, itching, dry mouth, decrease in appetite and decreased respirations/ breathing.
- Common side effects of muscle relaxants include drowsiness, headache, confusion, dizziness, nausea and vomiting.

Breathing Exercises

(Do 10 times each hour while awake.)

- Cough.
- Deep breathe.
- Use incentive spirometer.
- Use oxygen if ordered.

Other equipment in your room or attached to your body may include:

- Your I.V. will be “capped” when you are taking adequate fluids.
- If you have a drain, it might be removed depending on output.
- If you have a foley catheter it will be removed; ask for assistance when getting up to use the bathroom.
- White elastic socks - TED stockings and Sequential Compression Devices to help prevent blood clots
- If your surgeon has ordered a brace for you, it will be fitted after your surgery. See Brace information on page 47.

Things to Report to the Nurse

- New onset or increase in intensity of pain
- Changes in sensation or movement to lower back, buttocks and legs
- Any drainage felt on your dressing

Review Discharge Plan

- Discuss with your health care team your:
 - Discharge destination
 - Equipment needed at home if any (i.e., roller walker, 3 in 1 commode)
 - Home support
 - Home health if ordered
- Discharge Education
 - Pain management
 - Wound care/bathing
 - Activities and restrictions
 - Medications
 - Brace/instructions/care if ordered
 - Follow-up doctor's appointment/home care needs

Surgery and Recovery

Cervical Surgery: The Cervical Collar

Your physician 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 Recovery Room after surgery you will be wearing your brace. Your surgeon will discuss with you when you need to wear the collar and how long you will 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. The brace is usually fitted the day of surgery or the first day after your spine surgery. It is to be worn at all times when out of bed (except while in the shower). You will need to wear a fitted T-shirt, camisole or sleeveless shirt under the brace. When you return for your post-operative appointment, your surgeon will determine if you need to continue to wear the brace.

Your physician will decide which of the following braces 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 take on and off the brace. If you are experiencing problems with your customized TLSO, notify the company that made your brace. In the meantime, pad any pressure areas with gauze or cotton. However, do not delay.

Spine Precautions

No Bending, Lifting, Twisting (B, L, T)

- Do not bend at the waist; do bend at the hips and knees.
- Do not lift objects heavier than a gallon of milk (10 pounds).
- Do not twist your trunk.

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

Surgery and Recovery

Body Mechanics Principles After Your Surgery

Sleeping

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

Sitting

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

Standing

- Maintain toned abdominal and buttock muscles.
- Change position by weight shifting, walking or putting foot on low stool.
- Wear comfortable shoes with good support.
- Adjust work heights to avoid bending and reaching.

Pushing/Pulling

- Push, rather than pull.
- Keep back straight and head up.
- Knees and elbows slightly bent.
- Have center of gravity below mid-mass of load.

Mobility

Bed Mobility

When rolling to your side, move as a unit with hips and shoulders moving simultaneously, to avoid twisting. You will 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 you are lowering your upper body, bring your legs and feet up onto the bed.

To get out of bed, the process is reversed. Avoid twisting by using the arm closest to the bed for support, eliminating the need to reach across your body. Before standing, scoot as close as possible to the edge of the bed and place your feet on the floor. If you are sitting on a chair without arms, push with your hands against your thighs, keeping your head up and your back straight. **Move slowly to avoid injury.**

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

Surgery and Recovery

When Can I Go Home?

A smooth and speedy recovery depends on you following the activities laid out by health care professionals in your patient care plan. By strictly following this plan, you'll have a better chance of leaving the hospital sooner for a home, or if needed, a rehabilitation center.

The type of procedure will be 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.

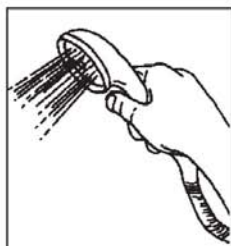
Some equipment you might need after spine surgery includes:

- A Walking Aid: This can be a walker or a cane
- A 3-In-1 Commode: This is a raised toilet seat set in an enclosed aluminum stand. It can be used in any room, or placed over your bathroom toilet. It gives you the extra lift spine patients need after surgery. Remember, you don't want to sit on anything low — be it a sofa or a toilet.

Insurance will cover the purchase of a walking aid and commode. Read “Where to Find Equipment” for ideas on where these items can be purchased or rented.

Surgery and Recovery

Equipment After Surgery (continued)



A hand-held shower head lets you control the spray of water. Use it while sitting on your tub bench.



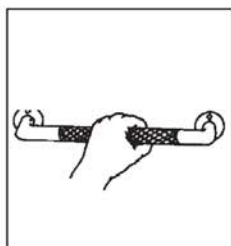
Elastic laces let you slip in and out of your shoes easily while keeping them tied. A long-handled shoe horn helps you guide your foot into the shoe.



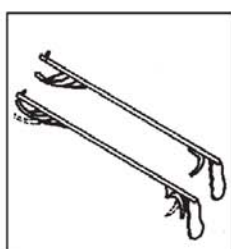
A sock aid will help you put on socks without bending.



A long-handled sponge can be used to wash your feet, eliminating your need to bend.



Grab bars installed in the bathtub and shower will help you stay safe while climbing in and out.



A reacher will enable you to access items stored above or below waist level.

Surgery and Recovery

Where to Find Equipment

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

- Call local drugstores to see what selections of health equipment they carry.
- Obtain a department store health care catalog. It will detail a variety of equipment you can buy.
- Look in the Yellow Pages' "handicapped services equipment" or "home care services" sections to find retailers specializing in this equipment.
- BayCare HomeCare is a regional corporation selling health care items. They will deliver these goods to your home. Call (800) 940-5151.

Surgery and Recovery

My Medical Questions

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

Notes

Surgery and Recovery

Notes

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Surgery and Recovery

Notes

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Surgery and Recovery

A Final Note

The Morton Plant Mease Spine Program wants to ease your pain, and to 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 the material appearing here, please make sure to consult your doctor or nurse. He or she will be happy to talk with you