

BRAIN SURGERY CARE PATH

Pre and post-operative information to help guide you through surgery



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Phone Contacts:



FOR SERIOUS MEDICAL EMERGENCIES CALL 911

Office Hours are Monday – Thursday 8:00am – 5pm, and Fridays 8:00am – 4pm

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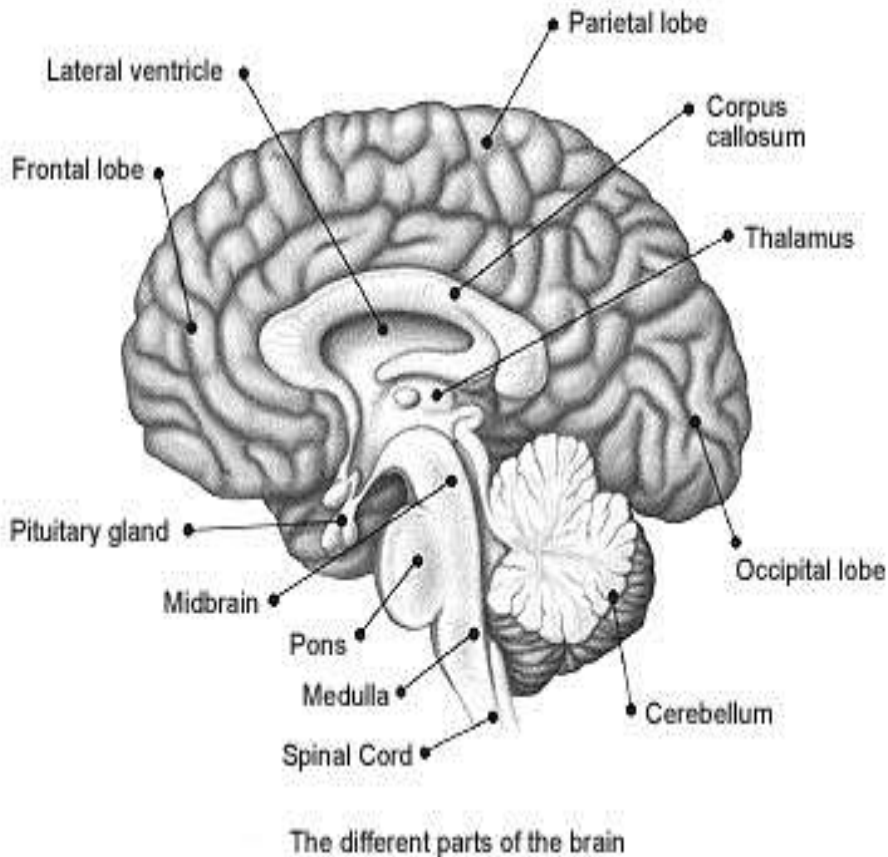
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Physician on call**

Brain Anatomy:



Frontal lobe:

Executive functions, thinking, planning, organizing and problem solving, emotions and behavior control, personality.

Lateral ventricle:

Communicating network of cavities filled with cerebrospinal fluid (CSF).

Parietal lobe:

Perceptions, making sense of the world, arithmetic and spelling.

Corpus callosum:

Thick band of nerve fibers that divides the cerebral cortex lobes into left and right hemispheres. It connects the left and right sides of the brain allowing for communication between both hemispheres.

Thalamus:

Some of its functions are the relaying of sensory and motor signals to the cerebral cortex, and the regulation of consciousness, sleep, and alertness.

Occipital lobe:

Vision.

Cerebellum:

An important role in motor control.

Medulla (oblongata):

Helps regulate breathing, heart and blood vessel function, digestion, sneezing, and swallowing

Pons:

Besides the medulla oblongata, the pons is also involved in the control of breathing, communication between different parts of the brain, and sensations such as hearing, taste, and balance.

Midbrain:

The portion of the central nervous system associated with vision, hearing, motor control, sleep/wake, arousal (alertness), and temperature regulation.

Pituitary gland:

Produces adrenocorticotropic hormone, which stimulates the adrenal glands to secrete steroid hormones, principally cortisol. Produces growth hormone, which regulates growth, metabolism and body composition.

Frequently Asked Questions:

1. What is the recovery time?

Each patient heals from surgery at a different pace. At first, you will have lifting, and bending with head lower than waist restrictions for approximately the first 2-4 weeks. After your first post-operative follow up appointment, these restrictions will be readdressed by your surgeon based on your recovery progress. More complete recovery can range from 6-12 weeks.

2. When can I return to work?

It depends on the nature of your job. If your work is mostly sedentary, it is possible for you to return in approximately 2-4 weeks. If your work is more active, you may require up to 6 weeks before you can return to full duty. In some cases, more or less time off will be necessary.

3. How long will I be on pain medication?

It is not unusual to require some form of pain medication. Initially, the medication will be stronger (such as a narcotic). Taking it as prescribed usually provides the most effective pain relief. Most people are able to wean off their narcotic pain medication within the first weeks and progress towards an over-the-counter medication. You will be given instructions when you can resume taking over-the-counter aspirin and NSAID (e.g. ibuprofen) products after surgery.

DO NOT stop gabapentin (Neurontin) or seizure medications (e.g. Carbamazepine, Tegretol, or Keppra) until you are instructed to by your surgeon.

4. How soon can I take a shower?

Follow your surgeon's instructions when to shower. Using a shower chair may offer you extra support and comfort until you become more mobile. A hand held shower head can also be helpful and is easy to install. Do not take a tub bath without permission from your surgeon. (This also includes swimming in pools or lakes and using hot tubs.)

5. When can I travel?

It is best that you check with your surgeon, but in general you can travel (as a passenger) as soon as you feel comfortable doing so. You should get up to stretch or walk at least once an hour and stay well hydrated when taking long trips. This is important to help prevent blood clots.

Things to Avoid After Surgery:

Let pain be your guide. If any activity causes an increase in pain, STOP.

DO NOT stay in bed all day once you are home; doing so puts you at risk for several complications that will slow your recovery.

DO NOT use your time off after surgery to catch up on household chores, physical work, or heavy labor.

DO NOT lift more than 10 lbs (about a gallon of milk) until your follow-up with your provider.

DO NOT drive until cleared to do so by your provider; minimize long trips in the car until you have followed up with your provider.

DO NOT drive while taking narcotics.

DO NOT take a bath, swim or other activities that would involve submerging the incision under water until it is well healed (2-3 weeks).



Things To DO For a Positive Recovery:

Movement can help keep your joints and muscles flexible, reduce pain, and improve balance and strength. Balance rest with activity.

DO increase physical activity as tolerated. Regular physical activity helps prevent constipation, makes you feel better about yourself, helps manage your weight, and improves large back muscle tone and core strength. It is important to let pain be your guide and balance activity with rest.

DO change positions about every 30-45 minutes; walking (even short distances) at least once an hour

DO contact your provider if you have increased headaches.

DO contact your provider if you have difficulty seeing, talking or hearing.

DO contact your provider if you have change in behavior, faint, or have seizures

DO make sure you contact our office *at least* 24 hours before you run out of any pain medications to ensure that you have enough when you need them. We do NOT refill prescriptions on the weekends.

DO be sure to drink at least 8 glasses of water daily. Increase your intake of fruits and vegetables every day to help prevent constipation.

DO take all stool softeners and or laxatives as prescribed to prevent constipation which can lead to increased discomfort.



Pre-surgical Clearance:

Clearance appointments help providers determine that overall health conditions are optimal for surgery, or if additional interventions are required to decrease surgical risks.

Our office will assist you in scheduling all necessary appointments before surgery. It is important to have your exam and tests completed prior to your surgery to prevent possible delays.

Your Physical Exam:

You will need to have a physical exam prior within 30 days of surgery. Our surgery coordinators will schedule an appointment most likely with your primary care physician, or another provider in their office.

Other Tests before Surgery:

Labs, x-rays and other tests may be ordered in anticipation of surgery. The provider completing your physical exam may also order additional testing if necessary. Exam results will be shared with your provider prior to surgery.

Medications before Surgery

Following instructions from your care team will prevent your surgery from being delayed. Several medications, herbal supplements, and vitamins can have effects on bleeding, swelling, increase risk of blood clots and cause other problems if taken around the time of surgery.

A complete list can be found in the Pre-op folder on the yellow "Medication to Avoid Before Surgery" sheet.

Medications to discontinue 1-2 weeks prior to surgery

- ❖ **ALL ASPIRIN PRODUCTS**
- ❖ **ALL NSAIDS** (Nonsteroidal anti-inflammatory medications) including:

*Motrin (Ibuprofen)	*Aleve (Naproxen)	*Advil
*Voltaren (diclofenac)	*Excedrin	



You may also be required to stop other anticoagulation medications such as Plavix, Coumadin, and Warfarin. . If you have a questions regarding medication instructions prior to surgery, please contact your physician to clarify instructions.

Smoking Cessation:

Nicotine and tobacco products increase the risk of postoperative complications.

Quit Smoking before Surgery

Smoking before surgery increases risk after surgery and slows the healing process. It can lead to:

1. Lung problems during and after surgery, including pneumonia.
2. Infection and poor wound healing.
3. Degeneration of your spine and discs.

Smoking cessation includes tobacco products, smokeless tobacco products, chewing tobacco, nicotine patches and nicotine gum.

Your surgeon may decide to postpone or cancel surgery if you have NOT adhered to smoking cessation as directed.



Resources to Help You Quit

- ❖ Wisconsin Tobacco Quit Line: (toll free) at 800-Quit Now 800-784-8669
- ❖ The [National Alliance for Tobacco Cessation](#) provides the latest information on how to quit smoking with its program called “Become an EX.” Proven methods to teach smokers how to quit and stay quit are provided.
- ❖ ThedaCare Tobacco-Free Program at 920-831-5064

Home Preparation:

Setting up your home to make recovery environment as safe and functional as possible

1. Clean and remove all clutter. Place extension cords and telephone cords out of walkways, or secure down with tape.
2. Remove throw rugs and secure loose carpeting.
3. Prepare a room on the main living level if you sleep upstairs, or set things up so climbing stairs is minimal during the day.
4. Stock up on toilet paper, shampoo, and other personal items.
5. Wash and put away laundry. Change linens on your bed.
6. Recovery time can vary. Preparing and freezing meals in advance is a great way to provide extra convenience during the day.
7. Store frequently used items between hip and shoulder level to avoid reaching or bending throughout the day.
8. Have night lights placed in hallways or dark rooms.
9. Purchase or borrow any medical equipment you feel would assist with activities of daily living. This may include bathtub grab bar, toilet riser, bath or shower chair/bench, shoe horn, step stool, extended length grabber, etc.
10. Arrange for a family member or friend to check on you in your home to help get through the first couple of weeks after surgery. It may be helpful to coordinate help for mail pick up, lawn care, yard work, and pets.



Preparing Operative Site for Your Procedure:

Following these instructions will reduce your risk of infection.

Instructions: Use Hibiclens or CHG 4% antimicrobial liquid soap for 2 consecutive days prior to surgery.
(Unless otherwise instructed)

1. Wash face, hair & body with your own soap/shampoo in the shower; rinse thoroughly.
2. Using your antimicrobial soap and a clean washcloth starting from the neck down, wash your entire body for a minimum of three minutes. Pay close attention to the area of surgery. Let soap stand for an additional 60 seconds. **AVOID CONTACT WITH EYES.** Rinse thoroughly. Dry off with a clean towel.
3. Do not apply any lotions, powders, or creams to the surgical area after cleansing morning of surgery.
4. Repeat steps the day of surgery as well.
5. *If rash or allergic reaction occurs, stop using.*
6. Dress in clean clothes when shower is completed.



Hibiclens/CHG 4% can be purchased over the counter in the pharmacy area at many major retail outlets and drug stores.

Shaving: Do not shave operative site within 48 hours of surgery

What to Bring to the Surgery Center:

Bring your SURGERY PACK with you if you are staying overnight.

- ❖ Personal hygiene products (deodorant, toothbrush, toothpaste, comb and brush)
- ❖ List of current medications and with time and dosage information
- ❖ A CPAP machine if applicable
- ❖ A copy of your Power of Attorney paperwork
- ❖ Important phone numbers of friends and family
- ❖ Creature comforts such as books, magazines, lip balm and ear plugs
- ❖ Form of ID & insurance card
- ❖ Walker **IF** you are using one prior to surgery
- ❖ Wear loose fitting, comfortable clothing,
- ❖ Do **NOT** wear contacts the day of surgery; wear your glasses
- ❖ Do **NOT** bring non-essential valuables to surgery center/hospital

The Day before Surgery

DO NOT eat or drink anything after midnight, **INCLUDING WATER AND COFFEE**, unless otherwise directed by your provider. Eating or drinking the day of surgery may cause your surgery to be rescheduled or cancelled.

DO NOT chew gum after midnight.

NO alcoholic beverages or smoking 24 hours before your surgery.

YOU MAY TAKE any medications you were instructed to with a sip of water the morning of surgery.

Remove nail polish from fingernails.

Remove all jewelry, and piercings. Your surgeon may be required to cut-off items during surgery if not previously removed.



If You Get Ill Morning Of Surgery:

What to do if you are not feeling well the morning of surgery

When having surgery or anesthesia, it is important that you are in the best possible health. If you have a new illness or a flare up of an old condition not related to the reason for your surgery, sometimes the safest practice may be to delay the procedure until you are well.

Don't assume that your surgery will be delayed if you are sick. If the procedure is urgent or your illness is related to the surgical problem, then it might be best to go ahead with the procedure as planned.

Contact our office as soon as you think you may have an illness that may delay surgery.

If you get sick on the day of your surgery, please contact the Surgery Center where your surgery is scheduled and ask to speak to the nurse in charge.

Theda Clark Medical Center: 920-729-3336

Examples of Conditions that May Delay Surgery Include:

Cold or sinus infection within two weeks of surgery
Pneumonia or bronchitis within a month of surgery
Stomach virus or flu
Fever
Wheezing
Chest pain which is worse than usual
Diabetes severely out of control
Infected skin, lesions or rash in the area of surgery

If your surgery is canceled, contact our office to reschedule. Preoperative testing may or may not need to be repeated.

When You Arrive at the Surgical Facility:

When you arrive to the surgical facility you will be brought back to the pre-operative area. Things to anticipate while you are there:

- ❖ You will be asked to remove clothing (including socks and underwear) and change into a gown.
- ❖ Before going back to the surgical area, you will also need to remove any contact lenses, dentures, jewelry, or any other removable items. Your personal belongings will be stored in a safe place and returned to you after surgery, or they can be given to your visitors to hold while you are in surgery.
- ❖ An IV will be started and vital signs taken. Any additional lab work or testing will be done if requested by your surgeon.
- ❖ You will be asked to complete and sign your Surgical Consent and other required paperwork.
- ❖ You will meet your Anesthesiologist and Operating Room Nurse.
- ❖ You will then be taken to the surgical area on a patient cart. At that time, if any visitors are still with you, the nurse will direct them to the waiting area. When surgery is done, your surgeon will communicate how surgery went with family/friends that may come with you that day. Once in the operating room, monitors will be placed to help observe your blood pressure, oxygen levels and cardiac activity. Anesthesia will then be started.



Anesthesia and You:

To help ensure your comfort, anesthesia will be administered before and during your procedure. Your anesthetic will induce sleep with medications given through your IV.

Ensuring that you're well-informed

The anesthesiologist will meet with you prior to surgery. This is a great time to discuss past experiences with anesthesia or questions and concerns you may have.

If you have experienced motion sickness and/or nausea in the past, please inform our anesthesiologist before your surgery.

Post-operative nausea

Recently introduced drugs help prevent post-surgery nausea. If you are at high risk for experiencing nausea and vomiting, rest assured that you will be given appropriate medication before and after your surgery.



Recovering After Surgery:

Post surgical recovery happens in stages:

You will wake up and recover in the post-anesthesia care unit (PACU) until stable. You will then be moved to a step down recovery area or, if staying overnight, to your hospital room.

Discharge times can vary from patient to patient. Basic goals to achieve prior to discharge:

<ul style="list-style-type: none"> ❖ Tolerating fluids and food ❖ Passing gas/bowel sounds present 	<ul style="list-style-type: none"> ❖ Pain controlled with oral medication ❖ Urinating 	<ul style="list-style-type: none"> ❖ Walking (with or without assistance) as directed ❖ No other medical issues present
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Pain Management after Surgery:

Controlling pain is important for reducing stress, and increasing mobility after surgery.

As a surgery patient, you will be expected to:

- ❖ Share with your care team what has and has not worked in the past for pain control.
- ❖ Have realistic pain control goals. Being PAIN-FREE immediately after surgery is not a realistic goal.
- ❖ Reporting pain as a number will assist your care team to determine how effective your treatment plan is working, and whether adjustments need to be made.

Hospitals and clinic staff will use the 0-10 scale below to help rate your current pain levels.

Severity	Description of Experience
10 Unable to Move	I am in bed and can't move due to my pain. I need someone to take me to the emergency room to get help for my pain.
9 Severe	My pain is all that I can think about. I can barely talk or move because of the pain.
8 Intense	My pain is so severe that it is hard to think of anything else. Talking and listening are difficult.
7 Unmanageable	I am in pain all the time. It keeps me from doing most activities.
6 Distressing	I think about my pain all of the time. I give up many activities because of my pain.
5 Distracting	I think about my pain most of the time. I cannot do some of the activities I need to do each day because of the pain.
4 Moderate	I am constantly aware of my pain but I can continue most activities.
3 Uncomfortable	My pain bothers me but I can ignore it most of the time.
2 Mild	I have a low level of pain. I am aware of my pain only when I pay attention to it.
1 Minimal	My pain is hardly noticeable.
0 No Pain	I have no pain.

Pain Medications:

For post-operative pain management, follow the medication plan provided to you by your surgeon.

If you have an allergic reaction or intolerance to the prescribed medications, contact our office to have your current treatment plan adjusted.

Narcotic pain medications are effective in diminishing pain perception and can effectively manage acute pain, such as surgery. The goal is for short term use if possible.

Patients taking narcotic pain medications can experience nausea, confusion, drowsiness, and constipation. Use these medications only as prescribed and *as needed*. The goal is to progress to over-the-counter pain medication for pain control as soon as appropriate. **Make sure you eat 5 minutes before taking narcotic pain medicine**



Wisconsin healthcare providers are taking a step in the right direction! The number of prescribed opioids declined 18% from 2010 to 2015.



*** **Percocet, Hydrocodone, Oxycodone, OxyContin, Vicodin, Morphine and Dilaudid** all require a hand-written prescription for refills. They can NOT be called in. **Refills should be requested at least 24HOURS PRIOR.** NeuroSpine Center hours are Monday -Thursday 8 AM - 5 PM and Fridays 8 AM - 4 PM

Never flush or drain unused narcotic medication. Whenever possible, take unused prescription drugs to a collection program or event. To find the nearest location go to:

<http://doseofrealitywi.gov/drug-takeback/find-a-take-back-location/>

Caring for Your Incision Site:

Some shadowing on your dressing is normal in the beginning. Change dressing as needed. Decreases in dressing changes should occur over the first few days. When drainage discontinues, you may leave dressing off.

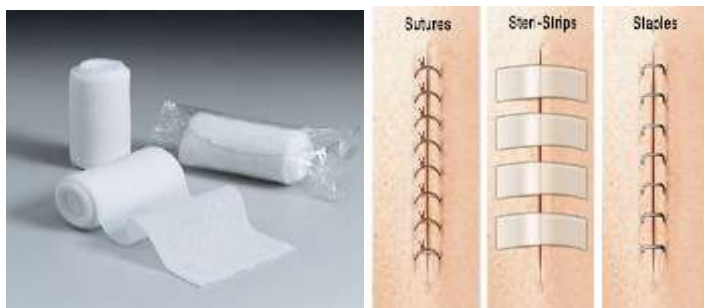
Your care team will go over the instructions with you before you leave. Make sure FULLY understand how to care for incision before you return home.

How to Care for Your Incision

- ❖ Monitor and keep the incision clean and dry daily.
- ❖ Check for increase in redness, swelling or drainage. (Some mild or minor redness/swelling is normal).
- ❖ A small amount of slightly blood tinged drainage from the incision is normal.
- ❖ Do not wash directly over the incision.
- ❖ Wash around the incision gently with soap and water, and pat gently dry with clean towel.
- ❖ Avoid submerging your incision until it is completely healed. This includes hot tubs, baths, and swimming pools.
- ❖ Do not use creams, lotions, ointments or alcohol near or on the incision.

Always wash your hands before caring for your incision.

If your incision is closed with sutures or staples do not pull on them. They will be removed at your first follow-up appointment. As the incision heals it is normal for this area to itch slightly. Be careful not to scratch the area to the point of opening your skin.



Post-operative Activities:

Movement can help keep your joints and muscles flexible, reduce pain, and improve balance and strength.

- ❖ Change positions about every 20-30 minutes while awake to prevent stiffness
- ❖ Use pillows for support while sitting or lying on your side

Physical Activity and Recovery

- ❖ Early activity is very important after your surgery. Activity such as walking will:
 - ❖ Increase blood flow
 - ❖ Reduce pain
 - ❖ Improve bowel and bladder function
 - ❖ Prevent blood clot formation
 - ❖ Minimize muscle spasm and swelling
 - ❖ Decrease surgical complications







Use a cane or walking devise if you feel unsteady on your feet when walking



See examples of activities you can do while sitting or lying down throughout the day on the following page....

Mobility and Range of Motion Activities:

Try these activities when sitting or lying down. Additionally, shoulder rolls and shoulder shrugs can be used for upper extremity mobility and range of motion.

<p>Elevate leg, gently flex and extend ankle. Alternate each leg, repeat as tolerated.</p> 	<p>Slowly rotate foot and ankle clockwise, and then counter clockwise. Gradually increase range of motion. Alternate each leg, repeat as tolerated.</p> 
 <p>Raise toes keeping heels on the floor. Repeat as tolerated.</p>	 <p>Raise heels, keeping toes on floor. Repeat as tolerated.</p>
 <p>Bring leg out to side and return. Alternate each leg, and repeat as tolerated.</p>	 <p>Tighten buttock muscles. Repeat as tolerated.</p>

Using Proper Body Mechanics after Surgery:

Proper body mechanics during everyday activities helps reduce discomfort.

General Body Mechanics after Surgery

- ❖ **DO NOT** bend at the waist, **DO** bend at the hips and knees.
- ❖ **DO NOT** lift objects heavier than 10 lbs. (about a gallon of milk).
- ❖ Let pain be your guide.

Everyday Activities After Surgery

Pushing/Pulling

Always PUSH, rather than PULL.
Keep your back straight and shoulders back.

Hold objects close to your core to avoid stress on lower back.



Sleeping

You can sleep in any position you find most restful. Keeping your body in a “mid-line” position, where both your head and neck are kept as straight as possible, usually will provide the most comfort.



Bending the knees and placing another pillow between the knees keeps the spine in the neutral position.



Using Proper Body Mechanics after Surgery:

Bathing

Prevent slips and falls by using nonslip bathmats on your bathroom floor and in your tub or shower. Watch out for hazards, such as wet floors.

Use grab bars in your shower or tub for support as you get in and out. **DO NOT** grab towel bars, as they cannot dependably support weight.

Installing a hand-held shower hose can give extra post-operative convenience.

Keep the soap and shampoo within reach. Sit on a bath bench or shower chair while you shower. Use a long-handled sponge to wash hard-to-reach areas.



Dressing

Lie on back to pull socks or pants over feet, or sit and bend leg while keeping back straight.



Log Roll in/out of Bed

While lying on your back, bend your knees. Roll onto your side. Keep your shoulders and hips together as a unit as you roll.

Place your bottom hand underneath your shoulder. Place your top hand in front of you at chest level.

Your shoulder and knees should always point in same direction. Reverse order for getting out of bed.



Post-operative Constipation

It is common to be constipated after surgery.

Following surgery, difficulty having a bowel movement may occur, especially if you are taking narcotic pain medications. You will most likely be prescribed at least one type of stool softener and or laxative (Miralax and/or Docusate sodium). Contact your primary care physician if you have not had a bowel movement for 3 or more days.

Tips to Prevent Constipation

- 1) Drink plenty of water.
- 2) Chewing gum post-operatively will also help speed up gastric and bowel activity.
- 3) Decrease narcotic pain medication as much as possible.
- 3) Get moving!
- 4) Consider using an enema or suppository.

Venous Thromboembolism (VTE):

When you have surgery, your body is at risk for blood clots (VTE).

Deep Vein Thrombosis (DVT):

- ❖ Swelling in one or both legs
- ❖ Warmth, pain, or tenderness
- ❖ Red and discolored skin in one leg

Pulmonary Embolism (PE)

- ❖ Shortness of breath
- ❖ Problems breathing
- ❖ Chest pain, worse during breathing
- ❖ Heart palpitations

To prevent VTEs make sure to drink plenty of fluids during the day, avoid tight clothing, do not cross your legs, and stay active. Avoid prolonged bedrest during the day. Inactivity causes blood to collect in the lower part of the body. Walking and range of motion exercises such as ankle rolls, and foot flexion will help with lower body circulation. If activity level is decreased after surgery, compression stockings can be used until activity returns to pre-surgical level.

Infection Prevention:

You play a very important role in preventing post-surgery infection. *Hand washing is the single most effective way to prevent the spread of infections.*

Signs of Surgical Site Infection

- ❖ Redness, warmth, and increased pain at incision site
- ❖ Fever above 101
- ❖ Cloudy or foul smelling drainage from your surgical site

Call your provider immediately if you notice any of the above signs of infection (920)882-8200

Smoking:

Research shows that those who smoke or are exposed to second-hand smoke have a significantly increased risk of developing an infection.

Diabetes:

This disease can slow down your body's ability to fight infection. High blood sugar (glucose) leads to high levels of sugar in your body's tissues. When this happens, bacteria grow and infections can develop more quickly.

It's important that you maintain your glucose level within the recommended range. It is common to notice an increase in your blood sugar levels after surgery due to stress on your body and medication you may be taking.

Home Environment:

Although they are not visible, bacteria are everywhere. While you recover, it's important to keep your home environment as clean as possible. Pets can be a source of infection for patients who have open surgical wounds. Air polluted with second-hand smoke, or with germs of someone who may be sneezing and coughing, can also be a source of infection.



Post-Surgical Nutrition:

Resume any dietary restrictions you may have such as Diabetic, Low Sodium or Cardiac/Heart Healthy following surgery.

<p style="text-align: center;"><u>Soft Diet</u></p> <p><i>After cervical surgeries, a soft diet, ice chips and cool fluids can help with throat soreness and inflammation. Consider:</i></p> <p>*Oatmeal *Pasta *Applesauce *Eggs *Soups *Cooked vegetables *Mashed potatoes *Protein shakes *Ensure/Glucerna (diabetic)</p> <p>Yogurt/ice cream/pudding/cheese. However, dairy products may increase post-operative phlegm</p>	<p style="text-align: center;"><u>Bland Diet</u></p> <p><i>Decreased appetite or nausea can be experienced and a bland diet will be recommended. Consider:</i></p> <p>*Eggs *Soup *Crackers *Pudding *Cooked pasta *Milk or dairy *Lean meats *Protein shakes</p> <p>Consider supplementing diet with Ensure/Glucerna (diabetic) to have adequate caloric intake during this time</p>
<p style="text-align: center;"><u>High Protein</u></p> <p><i>Protein helps with tissue healing, and provides energy and strength after surgery. Consider:</i></p> <p>*Eggs *Milk *Cottage Cheese *Oats *Greek Yogurt *Nuts *Lean Meats *Protein Shakes</p>	<p style="text-align: center;"><u>High Fiber</u></p> <p><i>Fiber can help with post-operative constipation. Consider:</i></p> <p>*Oranges *Apples *Bananas *Broccoli *Carrots *Whole Grains *Bread *Cereal *Beans</p>
<p style="text-align: center;"><u>Carbohydrates</u></p> <p><i>Eating the right kind of carbohydrates after surgery can help restore energy levels. Consider:</i></p> <p>*Whole Grains *Fruits *Vegetables *Beans</p>	<p style="text-align: center;"><u>Vitamins/Minerals</u></p> <p><i>Essential for bone growth and tissue repair. Consider:</i></p> <p>*Eggs *Fruits/Vegetables *Fish *Liver *Milk/Dairy *Lean Meats *Fortified Cereal</p>
<p style="text-align: center;"><u>Fats</u></p> <p><i>Healthy fats can improve the immune system and aid the body's absorption of vitamins. Consider:</i></p> <p>*Olive Oil *Coconut Oil *Avocados *Nuts</p>	<p style="text-align: center;"><u>Water</u></p> <p><i>Stay hydrated after surgery! Proper hydration isn't only necessary for healing, but may also be necessary to help your body absorb medications following surgery. Be sure to drink at least eight glasses of water every day after surgery to stay hydrated.</i></p>

Road to Recovery:

What if your recovery is taking longer than anticipated?

- ❖ Discuss symptoms or concerns with your surgeon to determine if additional interventions are needed.
- ❖ Remember everyone recovers differently. Allow yourself time to heal.
- ❖ STAY POSITIVE! Do not become discouraged.
- ❖ Don't stop doing things if you still have pain. Make adjustments to find an easier way of doing them.



Thank you for choosing the NeuroSpine Center of Wisconsin