

Patient Guidebook for Spine Surgery

78 Medical Center Drive
Fishersville, VA 22939

augustahealth.com/service/orthopedics

800-932-0262

540-332-4000



Date of your Spine Surgery:

The following will need to be completed *prior* to surgery:

1. Labs/EKG
2. Pre-admission testing (PAT) clinic visit: _____
 - a. Medical Office Building Suite 310, phone: 540-245-7850
**Must bring current medication list to clinic visit:
Name, Dose, Frequency, Medication schedule*
3. Additional physician appointments as directed by surgeon and/or PAT clinic
4. Determine who your coach will be: _____
5. Have a positive attitude and be willing to work hard!



Please fill out all information and mail it to:

Attn: Clinical Manager, Joint Center
78 Medical Center Drive
Fishersville, VA 22939

Patient Preoperative Information Form

Name: _____ Date of Birth: _____
Surgeon: _____ Date of Surgery: _____
Procedure: Cervical _____ Lumbar _____
Your primary pharmacy: _____ Pharmacy phone/location: _____

PERSONAL INFORMATION

Who do you live with? _____ Relationship: _____
Your Coach: _____ Relationship: _____ Coach's phone: _____

After your surgery, you will need some help with daily activities. Please have someone available to help with the following once you are discharged from the hospital:

- Dressing, bathing, meal preparation, shopping and housework
- Transportation home from the hospital
- Transportation to doctor appointments
- Transportation to physical therapy appointments 2-3 times a week, if necessary
- Assistance in monitoring surgical incision and changing surgical dressing

INSURANCE

Is your primary insurance Medicare? Yes No
If no, what is the name of your primary insurance carrier? _____

Is this a Workman's Compensation Case? Yes No
If yes, date of injury: _____

Workman's Compensation Company Name: _____

Contact person/Case Manager: _____ Phone: _____

If you have a private health insurance (Non-Medicare) you will need to:

1. Call the number on the back of your insurance card
2. Verify if your choice for outpatient therapy is in network

****This is not authorization****

3. Verify your co-pay per visit

Please fill out all information and mail it to:

ATTN: Clinical Manager, Joint Center
78 Medical Center Drive
Fishersville, VA 22939

In order to assist with your discharge plan and transition to home, the following information will be useful.

Questions related to home should be the home you are going *after* discharge.

1. Do you require any assistive devices Walker Cane Other _____
2. Number of stairs to enter the home _____ Handrail Yes No
3. Handrail location (facing stairs at the bottom) Left side Right side Both sides
4. Do you have stairs inside the home that will be used frequently Yes No
5. Number of stairs inside the home _____ Handrail Yes No
6. Handrail location (facing stairs at the bottom) Left side Right side Both sides
7. What medical equipment will you have available for your use after discharge?
 Walker Crutches Cane
 Elevated commode seat Bedside commode Sock donners
 Dressing stick Long handled sponge Reacher
 Other

The only item covered by your insurance provider is a walker. All other items are out of pocket expenses. You may want to borrow equipment as you may only need them for a short period of time.

Thank you for choosing Augusta Health for your Spine Surgery.

I. General Information

We are pleased that you have chosen Augusta Health for your spine surgery. Your decision to have spine surgery is the first step towards a healthier lifestyle.

Each year in the United States, approximately 1.2 million people make the decision to undergo spine surgery. The surgery aims to reduce your pain and other symptoms associated with your pain, such as, tingling, numbness, or weakness, restore your independence, and assist you to return to work and other daily activities. Most patients will be able to independently move all extremities (arms and legs) the day of their surgery.

The program is designed to allow you to return to an active lifestyle as quickly as possible. Most patients will be able to walk the day of their surgery and move towards normal activity within twelve weeks. Keep in mind, depending on your specific spine surgery, your return to normal activity may vary on the lower or higher end of twelve weeks (you can speak to your surgeon about the time specifically anticipated for you).

The spine program has planned a comprehensive course of treatment. We believe that you play a key role in promoting a successful recovery. Our goal is to involve you in your treatment through each step of the program. This guide will give you the necessary information to promote a more successful surgical outcome.

Your team includes neurosurgeons, the clinical nurse manager, registered nurses, patient care technicians, physical therapists, occupational therapists, and speech-language pathologists all specializing in spine care. The team member roles are further discussed on the next page. Every detail, from preoperative to postoperative, is considered and reviewed.

Using the Guidebook

Preparation, education, continuity of care, and a pre-planned discharge are essential for optimum results in spine surgery. Communication is essential to your spine surgery journey. The guidebook is a communication tool for patients, physicians, physical therapists, occupational therapists, speech-language pathologists, and nurses. It is designed to educate you so that you know:

- What to expect every step of the way
- What you need to do
- How to care for yourself after spine surgery

Remember, this is just a guide. Your physician, nurses, or therapists may add to or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure of any information. Keep your guidebook as a handy reference for at least the first year after your surgery. The information in the guidebook covers a lot of details, so it may look overwhelming. We recommend reading the entire guide at a pace that suits you.

Overview of the Spine Program

We offer a unique program. Each step is designed to encourage the best results leading to a discharge home from the hospital. Features of the program include:

- Dedicated nurses and therapists trained to work with spine patients
- Casual clothes (no drafty gowns)
- Private rooms
- Family member or friend that participates as a “coach” in the recovery process
- Detailed discharge information (with coach participation encouraged)
- Dedicated spine team who assists you with pre/post-operative care and discharge planning
- Comprehensive patient guide for you to follow from six weeks before surgery until three months after surgery and beyond

Meet Your Care Team

Your Coach

Your coach is a family member or friend of your choosing who will assist you through your spine surgery. Your coach should plan to visit during your hospital stay to provide support during therapy, be present at the bedside for review of discharge instructions, and keep you focused on healing.

Your Clinical Nurse Manager

The clinical nurse manager will round and check in on you during your hospital stay and assist with care coordination in conjunction with the interdisciplinary team. The clinical nurse manager will:

- Act as your liaison throughout the course of treatment
- Help assess and plan for your specific care needs

Neurosurgeon

The Neurosurgeon is the skilled physician who will perform the procedure to repair your spine.

Registered Nurse (RN)

Much of your care will be provided by a nurse responsible for your daily care. Your nurse will ensure orders given by your physician are completed; including medications, dressing changes (incision care) and monitoring your vital signs. The RN will review all discharge instructions with you and your coach prior to discharge and will also review what you’ll need at home after your surgery, this is also a time for you to ask questions.

Physical Therapist (PT)

The physical therapist will guide your return to functional daily activities. They will train you and your coach in safe transfer techniques, provide gait training, and teach exercises designed to regain your strength and motion after surgery. The physical therapist will provide and reinforce specific restrictions you will need to follow after spine surgery.

Occupational Therapist (OT)

The occupational therapist will guide you on performing daily tasks such as bathing, dressing, and toileting after your spine surgery. They may demonstrate special equipment used in your home after surgery; including shower benches, rails, or raised toilet seats.

Speech-Language Pathologist (SLP)

The speech-language pathologist will evaluate and treat patients experiencing discomfort or swallowing difficulty (dysphagia). Difficulties often occur as an expected side effect of some cervical surgeries, most specifically, but not limited to, an anterior cervical discectomy and fusion (ACDF).

Social Worker/Case Manager (MSW/CM)

The Social Worker and Case Manager will work as a team to advocate and implement your discharge coordination.

Patient Care Technician (PCT)

The Patient Care Technician will assist you with your daily needs, monitor vital signs, assist with morning routine, and walking in the hall.

II. Getting Ready For Surgery

In addition to completing your countdown to your spine surgery checklist, (see inside front cover), the following are strongly encouraged to prepare you for the best outcome.

Stop Nicotine Products

It is essential to stop smoking before surgery. Nicotine delays your healing process. Nicotine reduces the size of your blood vessels, decreases the amount of oxygen circulated in your blood, can also increase clotting which can cause problems with your heart and lungs and increases your blood pressure and heart rate. It is the expectation that you will be free of all nicotine products a minimum of thirty days prior to your surgery day.

Getting Ready for QUIT DAY

1. Pick your QUIT DAY and mark it on your calendar
2. Tell family and friends your QUIT DAY
3. Stock up on sugarless gum, carrot sticks and sugarless hard candy
4. Consider attending a smoking cessation class
5. Get rid of all cigarettes, ashtrays, lighters, and other smoking/nicotine related items

QUIT DAY & Beyond

1. DON'T use nicotine products
2. Ask people you live with not to smoke around you
3. Keep busy, stay active
4. Drink plenty of water
5. Attend the smoking cessation class if you have chosen one
6. Reduce or avoid using alcohol
7. Use the four "A"s to deal with tough situation
 - AVOID people and places that tempt you to use nicotine products
 - ALTER some of your other daily habits, like your meal time, your route to work
 - ALTERNATIVES for your mouth - like healthy snacks
 - ACTIVITIES for your hands - like needlework, woodcarving or other hobbies
8. If you are worried about gaining weight, increase your activity or see a nutritionist
9. Remind yourself that QUITTING is the most important gift you can give yourself

Spine Surgery Patients and Infection

What you need to know:

Many people have bacteria such as Staphylococcus aureus (MSSA), including a strain that is methicillin resistant (MRSA) on their skin and in their noses. Staph aureus is the most common cause of post-operative wound infections. MRSA has become commonplace in the community, present on otherwise healthy people. Please inform your primary care physician and surgeon of any infections which, if not promptly treated, could postpone or cancel your surgery.

Any infection needs to be addressed, whether it seems significant or not. If you develop a fever or chills any day within 7 days prior to your surgery, notify your surgeon. Infected scratches, cuts, and bug bites have been known to delay surgery if not treated.

Many things can increase someone's risk of infection after surgery including:

- History of previous wound infections
- Repeat or revision surgeries
- Being overweight
- Diabetes, high blood sugars
- Nicotine product usage
- Steroid use, including prednisone
- Close contact with others with skin infections
- Infections at other sites, such as dental infections, chronic sinusitis, upper respiratory infections, and rheumatoid arthritis

If you have any of these risk factors listed above, tell your surgeon prior to your surgery

To reduce your chance of infection:

- Shower with the antiseptic soap the night before surgery
- Do not shave the operative area (neck) the night before surgery. Shaving *increases* the risk of infection
- For diabetics, maintaining a normal blood sugar before and after surgery is very important.
- Washing your hands thoroughly and frequently helps to prevent infection before and after surgery

Wash your hands:

If hands could talk, they would tell you that:

- They can offer hope, healing, and comfort
- They can create, protect, and defend
- They also can be the route of spreading harmful bacteria

Hand washing has been proven to reduce the spread of harmful bacteria and reduce overall infection rates. While in the hospital, the use of gloves does not eliminate the need for hand hygiene. Likewise, the use of hand hygiene does not eliminate the need for gloves. When using an alcohol-based handrub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry.

Please remember to wash your hands frequently and thoroughly before your hospital stay, during your hospital stay, and after your hospital stay. In fact, make this your healthy and protective everyday practice. Encourage your family and friends to follow good hand hygiene practices. Please feel free to ask your surgeon, nurse, or anyone who enters your room if he/she has washed their hands.

Advance Directives

Advance Directives alert your family and all caregivers regarding your wishes about your health care. When you have an Advance Directive on file with Augusta Health, the medical staff will work to honor your health care decisions. Pre-Admission Testing will ask you during your visit if you have a current Advance Directive. Please bring a copy with you on the day of surgery.

Prepare Your Home for Your Return From the Hospital

It is important to have your house ready for your arrival back home. Use this list to help you get ready for surgery.

- Clean and do laundry
- Clean linens on bed
- Prepare and freeze meals
- Tend to yardwork
- Pick up throw rugs and tack down loose carpeting
- Remove electrical cords and other obstructions from walkways
- Install night-lights in bathrooms, bedrooms, and hallways
- Check that all railings are not unstable. Install a railing if you need access to stairs
- Install grab bars in the shower/bathtub. Put adhesive slip strips in the tub
- Arrange to have someone collect your mail and take care of pets

Breathing Exercises

To prevent potential problems such as pneumonia, it is important to understand and practice breathing exercises. Techniques such as deep breathing, coughing, and using an incentive spirometer may also help you recover more quickly.

Deep Breathing:

- You must use the muscles of your abdomen and chest
- Breathe in through your nose as deeply as you can
- Hold your breath for 5-10 seconds
- As you breathe out, do it slowly and completely through your mouth
- Breathe out as if you were blowing out a candle, this is called pursed lip breathing
- Breathe out for 10-20 seconds
- Take a break and then repeat exercises 10 times



Coughing:

- Take a slow deep breath. Breathe in through your nose and concentrate on filling your lungs completely
- Breathe out through your mouth and concentrate on your chest emptying completely
- Repeat with another breath in the same way
- Take another breath, but hold your breath and cough hard
- When you cough, focus on emptying your lungs
- Repeat all steps twice

Medications that Increase Bleeding

In accordance with the anesthesia guidelines at Augusta Health, there are certain medications that need to be stopped at specific time intervals prior to surgery. We encourage you to discuss specific medication concerns with the surgeon/Spine Clinic and/or Pre-admission Testing (PAT) Clinic.

Anesthesia guidelines at Augusta Health:

Two weeks prior to surgery, **STOP** Herbal Medications, for example:

- Garlic
- Ginkgo Biloba
- Cinnamon
- Vitamin E
- Other supplements
- Echinacea
- St. John's Wort
- Saw Palmetto
- Omega 3/Fish Oil

STOP blood thinners as directed by your surgeon's office, for example:

- Coumadin
- Plavix
- Eliquis
- Xarelto
- Effient
- Pradaxa

Three days prior to your surgery **STOP** all Nonsteroidal anti-inflammatory drugs (NSAIDS) including prescription and over the counter for example:

- Motrin/Advil/Ibuprofen/Aleve
- Voltaren/Diclofenac
- Mobic/Meloxicam

DO NOT stop taking your single daily aspirin tablet if you normally take one, unless otherwise instructed.

The Night Before Surgery

- **Do not eat or drink anything after 11:00 p.m.**, unless otherwise instructed to do so
- You may drink up to 8 ounces of Powerade or Gatorade up to four hours prior to your arrival time, unless otherwise instructed to do so
- Follow the pre-operative Chlorhexidine (Hibiclens) bathing instruction sheet; this soap helps prevent surgical site infections

The Morning of Surgery

Take **ONLY** the medications listed on the medication instruction sheet you received from PAT Clinic and the Spine Clinic

- Do not wear makeup, nail polish, lotions, oils, or any hair products.
- Do not wear any jewelry.

Bring the Following to the Hospital With You

1. Copy of your Advance Directive, if you have one
2. Insurance card, driver's license or photo I.D.
3. Co-payment required by your insurance company
4. Bring your CPAP, if you have one

Arrival to the Hospital

- You will receive a call from the operating room scheduler **one** business day prior to your surgery day
 - You will be provided the time to arrive for surgery
 - You will be given specific instructions on where to enter the hospital, what to do and where to go once inside the hospital
- Be prepared to verify your home medications with the preoperative nurse
 - Bring your medication list from home or the list you were provided at the PAT clinic
 - Please be sure to take note of the last dose for each medication

What Your Coach Can Bring to Your Room After Surgery

- Guidebook
- Walker or cane (if applicable)
- Loose fitting clothing and supportive sneakers
- Personal hygiene items

III. Hospital Care

Day of Surgery - What to Expect

- Preparations for surgery include starting an IV line, fitting you for support stockings and scrubbing your operative site
- Once you have been “prepped” for surgery, your family may wait with you until you go to the operating room
- An anesthesiologist will talk with you prior to surgery and discuss anesthesia:
 - General anesthesia provides loss of consciousness
 - Potential side effects of general anesthesia:
 - Nausea
 - Vomiting
 - Muscle aches
 - Itching
 - Sore throat
 - Chills/shivering

Prior to surgery your surgeon will meet with you and mark your operative site.

After Your Surgery

You will be taken to the PACU/Recovery Room

- Expect to stay in the PACU/Recovery Room for at least 1 hour while you wake up and recover from anesthesia
- Your pain will be monitored by the nurse and pain medications will be administered per your surgeon’s orders
- No visitors are permitted in the PACU/Recovery Room
- Your coach will be provided with updates on your condition and when a room on the inpatient unit/outpatient surgery area has been assigned to you

You will then be taken to the inpatient unit or to the outpatient surgery area (if you will be discharging the same day) where a specially trained nurse will care for you. It is very important to:

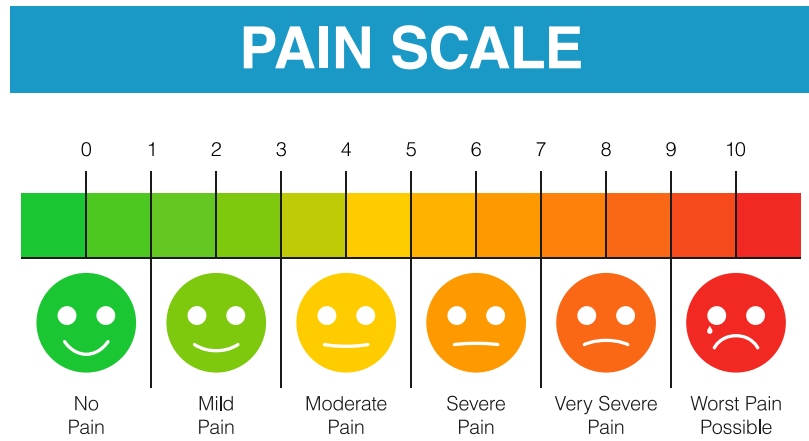
- Begin ankle pumps on this day. This will help prevent blood clots from forming in your legs
- Begin using your Incentive Spirometer and doing the deep breathing exercises that are explained in your guidebook

Understanding Pain

Your spine team will work with you to manage your pain. Pain can be chronic (lasting a long time) or intense (breakthrough). Pain can change through the recovery process. It is important for you to stay ahead of your pain and to let your nurse know when you begin to feel discomfort.

Your Role in Pain Management

Your spine team will best understand your pain level when a pain scale is used. If “0” means you have no pain and “10” means you are in the worst pain possible, how would you rate your pain? With good communication about your pain, the team can make adjustments to make you more comfortable. Try to relax. When you are relaxed, medication works better.



Postoperative Pain Medications

Your surgeon will order pain medications that may be administered by the nurse according to specific regulations to keep your pain at a manageable level on the 0-10 pain scale (discussed above) and at the same time keep you safe.

Oral Medications:

- Narcotics such as Oxycodone (Roxicodone)
- Analgesics such as Acetaminophen (Tylenol)
- Non-steroidal anti-inflammatory drugs such as Celecoxib (Celebrex)

Intravenous (IV) Medications:

Narcotics such as Hydromorphone (Dilaudid), Fentanyl (Sublimaze) or Morphine

- Can be administered by a single dose through the IV for breakthrough pain
- Can be administered by a Patient-controlled analgesia (PCA) pump
 - The patient and **only** the patient can administer narcotic pain medication to themselves through their IV based on an order that specifically outlines the dose and frequency the pain medication can be administered

After Surgery

Daily while in the hospital, your surgeon, surgeon’s partner and/or a Physician’s Assistant from the Spine Clinic will see you and evaluate your progress towards the goal to discharge to home. You will have therapy in your room which may include PT, OT and SLP (more specific to cervical surgeries). Your therapist will perform an evaluation and set an individualized treatment plan to help best meet your therapy goals prior to discharge.

Therapy in the hospital will include training in bed mobility, transfers, progressive walking (with or without an assistive device), stair negotiation, education of safe movement and body mechanics, instruction in activities of daily living (bathing, dressing, and toileting), and strengthening and range of motion exercises. Your therapist will provide education on how to perform movements safely with spinal precautions including minimizing bending, lifting, and twisting and will help prepare you for a safe discharge home. You will have specific restrictions that you will need to follow at home after discharge that you will be educated on by the therapist.

Spine Precautions

- Post-operative pain is to be expected after surgery
- Because of the location of your surgery, there will be some movements that might be more restricted than others. Movements of the spine (bending and twisting) might initially be uncomfortable
- These motions (bending and twisting) are not inherently dangerous or “bad” but might be more challenging or painful following surgery
- For the first several weeks, we recommend that you minimize bending and twisting for your comfort
- As your body begins to heal and your pain is better controlled, it is okay to start gradually bending and twisting 4 weeks after surgery
- Pain does not mean that you are damaging your surgical site. Some level of discomfort is okay and safe, but you should not be pushing into uncomfortable ranges of motion. It is best to take a gradual approach
- We recommend no lifting greater than 10lbs for about **6** weeks after surgery

Going Home

Please have someone available to pick you up. It is encouraged that your coach be available at discharge to participate in the discharge instruction process to ensure all questions are answered. You will receive written discharge instructions concerning medications, activity, wound care, etc. We will help you obtain equipment if you have not made previous arrangements. Don't forget to take this guidebook home with you.

IV. Living With Spine Surgery

While you are recovering, it is important to listen to your body. You may have a poor appetite initially and your energy level may be decreased for at least 1-2 months. It is important to manage your pain, watch for signs and symptoms of an infection and other complications related to your surgery.

Pain Management

What Pain Medications May be Prescribed?

Analgesic medications help to relieve pain:

- Acetaminophen (Tylenol)
- Non-steroidal anti-inflammatory drugs (NSAIDS) such as Naproxen (Aleve) and Ibuprofen (Motrin/Advil), Celecoxib (Celebrex) may be taken if directed by your surgeon
- If your spine surgery included a **fusion**, you **may not** use NSAIDS for 2 weeks after surgery

Narcotic medications inhibit pain receptors in the brain and increase your pain tolerance. Examples include:

- Oxycodone (Roxicodone)
- Hydromorphone (Dilaudid)
- Tramadol (Ultram)

How Do I Take This Medication?

- Take the medication **ONLY** as directed by your surgeon
- Narcotic medication may become habit forming, so use the lowest dose that is necessary to treat your pain
- Take medication with food or milk to avoid stomach upset
- It is important to stay hydrated while taking this medication

What Common Side Effects or Problems May I Experience?

(See managing postoperative constipation page at the end of the book)

- Constipation
 - May be reduced by staying hydrated (drinking 6-8 glasses of water per day)
 - Ask your surgeon or pharmacist to recommend an over-the-counter product to reduce the risk
- Mild to moderate drowsiness or sedation
- Euphoria

Tell your surgeon immediately if you experience any of the following side effects:

- Slowed or trouble breathing
- Persistent nausea or vomiting
- Severe drowsiness, dizziness, or fainting
- Yellowing of eyes or skin
- Trouble urinating or dark urine
- Unusual thoughts or behaviors or severe mood swings

Are There Any Special Precautions?

- Avoid activities requiring mental alertness or coordination
- Do not use alcohol while taking this medication
- Elderly patients may be more sensitive to the effects of this medication
- Make sure your surgeon is aware if you are taking:
 - Muscle relaxants (e.g. Flexeril, Robaxin, or Soma)
 - Anxiety medication (e.g. Ativan or Valium)
 - Anti-depressants (e.g. Amitriptyline)
 - Sleep aid medications to help you sleep (e.g. Ambien or Benadryl)
- It is essential your surgeon is aware of all your medications including over the counter and herbal supplements

What if I Miss a Dose?

Since these medications are usually used on an “as needed” basis, you may not be on a regular schedule. If you miss a dose of this medicine, take it as soon as possible if you are having pain. If it is almost time for your next dose, skip the missed dose and resume your regular dosing schedule. Do not take double doses.

Be Comfortable

- Acetaminophen (Tylenol) should be taken on a regular schedule after surgery to help relieve pain. Follow the instructions on the medication bottle for dosing unless contraindicated or allergic
- Take your pain medication at least 30 minutes before physical therapy
- Follow up with your surgeon for ineffective pain management
- Change your position frequently to avoid stiffness

Apply ice to your neck or back every 2 hours to decrease discomfort and swelling

Methods of ice therapy include:

- Bag of frozen peas or corn wrapped in a towel, marked as ice therapy
- Freezer bag with 3 cups of water and 1 cup rubbing alcohol
- Freezer bag with dish detergent (e.g. Dawn®)
- May purchase medical type ice packs from any pharmacy or store of your choice

Body Changes

- Your appetite may be poor. Drink plenty of fluids to keep from getting dehydrated. Your desire for solid food will return
- Your energy level may decrease for the first month or two, this is normal as your body has just undergone a major surgery
- Taking naps will help you heal. Don't sleep all day, you will not be able to sleep at night
- Pain medication that contains narcotics will cause constipation. Please be proactive in regards to your bowel habits

Ways to mitigate constipation include:

- Walking as much as you can tolerate
- Drinking prune juice
- Increasing fluid intake (water, electrolyte fluids, etc....)
- Performing abdominal massages
- Adding more fiber to your diet
- Using stool softeners and/or laxatives if necessary

Support Stockings

You will be asked to wear support stockings. These stockings are used to help compress the veins in your legs. This helps to keep swelling down and reduces the chance for blood clots.

V. Infection & Post-operative Complications

Hand washing has been proven to reduce the spread of harmful bacteria and reduce overall infection rates.

Caring for Your Incision:

- If needed, your dressing will be changed the day after surgery
- The dressing should be removed 5 - 7 days after your surgery
- You may shower with the dressing in place if the edges of the dressing are sealed
- Your dressing should immediately be removed if it becomes loose at the edges or wet under the dressing
- If the dressing needs to be removed *prior* to 2 days after surgery, please place a gauze and tape dressing over the incision and keep dry
- If the dressing needs to be removed *after* 2 days after surgery and there is no drainage from the incision and you have Dermabond (surgical glue) on the incision, you may shower without a dressing in place
- If the dressing needs to be removed *after* 2 days after surgery and you have staples at the incision, you may not shower unless a waterproof dressing is placed back on the incision
- Do not submerge your incision in water (bath tub, hot tub, pool, lake, etc.)
- If you had a drain, you may have a second dressing or band aid at that site. You may remove that dressing/band aid 2 days after surgery
- If you have sutures or staples at the incision, you will have an appointment to return to the Spine Clinic 10 – 14 days after surgery for removal in the office
- If you have Dermabond (surgical glue), it will wear off with time with no further care needed for the Dermabond

Recognizing Signs of Infection

Signs of Infection:

- Increased swelling and redness at incision site
- Change in color, amount, and/or odor of drainage
- Increased pain with both activity and rest
- Fever greater than 101.5 degrees
- Chills

If you experience any of the following above signs of infection, immediately contact the Spine Clinic: 540-245-7400.

Deep Vein Thrombosis (DVT)

Surgery may cause the blood to slow and coagulate in the veins of your legs, creating a blood clot. It usually happens in the veins of your thighs and calves. If a clot occurs, you may need to be admitted to the hospital for further treatment.

Factors that increase risk for DVT:

- Cancer
- Obesity
- Heart and lung disease
- 40 years of age or older
- History of DVT
- Major surgery which limits mobility
- Pregnancy
- Blood clotting diseases
- Birth control medication
- Smoking
- Hormone replacement medication
- Traumatic injuries
- Poor activity level

Preventing DVT:

- Perform ankle pumps - pump your ankles like you would on a car gas pedal
- Perform gluteal sets - squeeze your thighs and buttocks and hold them tightly for 3 seconds
- Walk as much as possible
- Wear your support stockings
 - Wear the stockings continuously, removing for one to two hours twice a day
 - Notify your surgeon if you notice increased pain or swelling in legs
 - You will wear these stockings for at least two weeks after surgery
 - Ask your surgeon when you can discontinue the stockings
- Drink plenty of fluids; avoid caffeine and alcohol
- Avoid tight socks, shoes, and clothing, which could cut off blood flow to your legs
- When you are traveling long distances, stop and get out of the car and walk around for 10-15 minutes every hour

Signs of DVT:

- Swelling in thigh, calf, or ankle that does not go down with elevation
- Pain, heat, and tenderness in calf, back of knee or groin area

Pulmonary Embolus (PE)

A pulmonary embolus is a blood clot that breaks away from the vein and travels to the lung. This is an emergency, and you should **CALL 911** if you develop any of the following signs or symptoms:

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Sweating
- Confusion
- Rapid heart rate

Prevention of Pulmonary Embolus:

- Following steps on how to prevent DVT
- Recognize the signs and symptoms of a DVT and notify your surgeon immediately

VI. Personal Care

Putting on pants and underwear:

1. Sit down
2. Use a reacher or dressing stick to guide the waistband over your foot or cross your legs so you can easily reach your feet
3. Pull your pants up over your knees, within easy reach.
4. Stand with the walker in front of you to pull your pants up the rest of the way

Taking off pants and underwear:

1. Back up to the chair or bed where you will be undressing
2. Unfasten your pants and let them drop to the floor. Sit down
3. Push your underwear down to your knees
4. A reacher or dressing stick can help you remove your pants from your foot and off the floor

How to use a sock aid:

1. Slide the sock onto the sock aid
2. Hold the cord and drop the sock aid in front of your foot. It is easier to do this if your knee is bent
3. Slip your foot into the sock aid
4. Straighten your knee, point your toe and pull the sock on. Keep pulling until the sock aid pulls out. **Note:** If you can cross your legs and easily reach your feet, you may perform without a sock aid

If using a long-handled shoehorn:

1. Use your reacher, dressing stick, or long handled shoehorn to slide your shoe in front of your foot
2. Place the shoehorn inside the shoe against the back of the heel. Have the curve of the shoehorn match the curve of your shoe
3. Lean back, if necessary, as you lift your leg and place your toes in your shoe
4. Step down into your shoe, sliding your heel down the shoehorn. **Note:** This can be performed sitting or standing. Wear sturdy slip-on shoes, or shoes with Velcro closures or elastic shoelaces. DO NOT wear high-heeled shoes or shoes without backs

VII. Saving Energy Around The House

Kitchen:

- Do NOT get down on your knees, bend over excessively or twist at the waist to scrub floors; use a mop and long-handled brushes
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal
- To provide a better working height, use a high stool, or put cushions on your chair when preparing meals
- Place frequently used cooking supplies and utensils where they can be reached without too much bending, twisting, or stretching

Bathroom:

- Do NOT get down on your knees, bend over excessively or twist at the waist to scrub the bathtub or toilet; use a mop or other long-handled brushes
- Utilize any recommended equipment for safety (grab bars, elevated toilet seat, shower bench)

Safety and Avoiding Falls:

- Pick up throw rugs and tack down loose carpeting
- Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs
- Be aware of all floor hazards such as pets, toddlers, small objects, or uneven surfaces
- Provide good lighting throughout by installing nightlights in the bathrooms, bedrooms, and hallways
- Keep extension cords and telephone cords out of pathways
- Do **NOT** wear open-toe slippers or shoes without backs as they do not provide adequate support and can lead to slips and falls
- Sit in chairs with arms to make it easier to get up
- Rise slowly from either a sitting or lying position to avoid getting light-headed
- Do not lift more than 10 pounds until cleared to do so by the surgeon

Do's and Don'ts For the Rest of Your Life

Whether you have reached all the recommended goals or not, you need to have a regular exercise/therapy program to maintain the fitness and the health of the muscles around your spine. With both your neurosurgeon and primary care physicians' permission, you should be on a regular exercise program three to four times per week lasting 20-30 minutes.

What to Do in General:

- Although the risks are very low for postoperative infections, it is important to realize that the risk remains. Even years after surgery, spinal hardware could possibly attract the bacteria from an infection located in another part of your body. Notify your surgeon and/or primary care physician if you have signs and symptoms of an infection
- See your surgeon for check-ups as recommended

Staying Active After Surgery: Fitness for Life

- It is important to maintain a good body weight to decrease the stress on your spine
- In the initial months after surgery, avoid high impact activities, and consider choosing a low impact aerobic activity such as:
 - Walking program (indoors on the treadmill or at the mall, or outdoors)
 - Stationary bike
 - Swimming or water aerobics (buoyancy of water decreases strain on the spine)
- Join an exercise class at local fitness center: group exercise is fun
- Sports such as golf and bowling are low impact

Our goal is for you to return to activities you have missed!

What Not to Do:

- Do NOT participate in high-risk activities such as contact sports, climbing a wet ladder, etc.

VIII. Frequently Asked Questions

We are glad you have chosen Augusta Health to care for your spine. People facing spine surgery often have similar questions. If there are any other questions that you need answered, please ask your surgeon or the Spine Clinic staff. We are here to help.

What is Spondylosis?

Spondylosis is a general term used to describe degenerative changes caused by “wear and tear” and the natural aging process. Bony projections (bone spurs) can form due to osteoarthritis which can compress the nerve roots. The symptoms of spondylosis can be pain, stiffness, tingling, numbness, weakness in the arms and legs, difficulty walking, loss of balance, and loss of bowel and bladder control. Spondylosis can occur anywhere in the spine including the neck and low back.

What is Spinal Stenosis?

Spinal stenosis is narrowing of the openings of the bones (vertebrae) of the spine. The spinal cord is located inside the opening of the bones. This can put pressure on the spinal cord and nerves that travel through the spine. Some people with spinal stenosis do not have symptoms. Others may experience pain, stiffness, tingling, numbness, and weakness in the arms and legs, difficulty walking, loss of balance, and loss of bowel and bladder control. The most common cause of spinal stenosis is arthritis due to “wear and tear” over time. Spinal stenosis can occur in the neck and low back.

What is Spondylolisthesis?

Spondylolisthesis is a spinal condition in which one of the spinal bones (vertebra) slips out of place and onto the spinal bone below it. Some people with spondylolisthesis do not have symptoms. Others may experience pain, muscle tightness, stiffness, tingling, numbness, weakness in the arms and legs, difficulty standing and walking, and loss of balance. In rare cases, some people may experience the loss of bowel and bladder control. Spondylolisthesis can occur in the neck and low back.

What is Disc Herniation?

You have a series of spinal bones (vertebra), stretching from the base of your skull to your tailbone. Between each spinal bone is a round cushion called a disc that has a soft, gel-like center and a firmer outer layer. The discs act as a “shock absorber” between your bones, allowing you to bend and move with ease.

Over time, the firm outer layer can weaken and crack. A disc herniation is when one of the discs in your spine tears causing the gel-like material to push through the tear and press on nearby spinal nerves. Disc herniation can occur anywhere in the spine including the neck, mid and low back. Some people may experience pain, tingling, numbness, and weakness in the arms and legs. Symptoms typically worsen with movement and get better with rest.

Laminectomy

Laminectomy is a surgery that enlarges the space in the openings of the bones (vertebrae) by removing bone spurs and tissues associated with arthritis of the spine. It usually involves removing a small piece of the back part (lamina) of the bones of the spine (vertebrae). Laminectomy surgery relieves pressure on the spinal cord and nerves. Laminectomy is often done as part of a decompression surgery.

Discectomy

Discectomy is a surgery to remove part or all of a damaged disk in the spine that has its soft center pushing out through the tough outer lining (herniated disk).

Fusion

Spinal fusion is a surgery using bone or a bonelike material to connect two or more spinal bones (vertebrae) into one structure in any part of the spine. The surgeon will use metal plates, screws, or rods to hold the spinal bones together. Connecting them prevents movement and stabilizes two or more spinal bones while the fusion occurs. A fusion can take more than a year to completely “fuse”.

What are the Major Risks?

Most spine surgeries go well without any complications. Infection and blood clots are two possible serious complications. To avoid these complications, your surgeon will use antibiotics and blood clot reducing mechanisms such as support stockings (some patients may also receive medication). Surgeons also take special precautions in the operating room to reduce the risk of infection.

How long will I be in the hospital?

The average length of stay in the hospital for spine surgery is one day. This can vary greatly from discharging the same day to several days in the hospital depending on the specific surgery you are having. You can discuss the expected length of stay with your surgeon.

What if I Live Alone?

Ideally patients are discharged from the Inpatient Unit to their home setting which should be your expectation and plan. Please make necessary arrangements prior to your surgery.

Will the Surgery be Painful?

You will have discomfort following the surgery. The specially trained spine nurses will monitor your pain level frequently. Pain control measures include:

- Anesthesia
- Oral pain medication
- IV pain medication
- Ice therapy
- Repositioning

How Long and Where will my Scar Be?

Surgical scars will vary in length, but your surgeon will make it as short as possible. There may be lasting numbness around the scar. The scar for neck surgery may be in the front or the back of the neck. The scar for low back surgery may be on your back, front, or side depending on the specific surgery performed.

Will I Need a Walker or a Cane?

Your physical therapist will evaluate your need for assistive devices and make recommendations accordingly, prior to your discharge home. Patients progress at their own rate.

Will I Need Help at Home?

Yes. For the first few days or weeks, depending on your progress, you will need someone to assist you with meal preparation, transport, etc. Family or friends need to be available to help if possible. Preparing ahead of time, before your surgery, can minimize the amount of help needed. Having the laundry done, house cleaned, yard work completed, clean linens on the bed, and single portion frozen meals will help reduce the need for extra help.

Will I Need Physical Therapy When I Go Home?

You will have a 4-week postoperative follow up visit with your surgeon or a Physician's Assistant at the Spine Clinic. At this follow up visit, it will be decided if you will benefit from attending outpatient physical therapy. The duration of therapy varies with each person but is typically two to three times per week to assist in your rehabilitation. Please verify insurance benefits prior to scheduling the appointment.

Thank you for choosing Augusta Health for your Spine surgery. We look forward to assisting you.
Contact the Spine Clinic with any questions. **See You Soon!**

IX. Post-Hospital Care

Coaches Checklist

Place a check mark in each box if you understand the task. Any item requiring clarification must be discussed with your nurse when you receive your final instructions for going home.

Do you know...?

Signs and symptoms of blood clots:

- Deep Vein Thrombosis (DVT)
- Pulmonary Embolism (PE)

- Applying and removing support stockings
- Signs and symptoms of infection
- Pain medication instructions
- Ice therapy
- Use of incentive spirometer
- Mobility assistance including:
 - Assisting in/out of bed
 - Assisting up/down stairs
- Use of equipment (walker, reacher)

Managing Postoperative Constipation

Causes:

- Pain Medications
- Physical Inactivity
- Poor Appetite
- Anesthesia

Treatments:

Get Moving

- Therapy exercises
- Walk

Drink Plenty of Fluids

- Water
- Hot liquids (coffee, tea)

Increase Fiber (20-25 grams/day)

- Whole Grains
- Fruits
- Vegetables
- Beans

Medications:

Step 1: Take Laxative/ Stool softener

- Senokot S (Sennosides-Docusate Sodium)
- 2 tablets twice a day (stop if loose bowel movements)

Step 2: If no bowel movement, take:

- Polyethylene Glycol (MiraLAX)
- Bisacodyl (Dulcolax)
- Magnesium hydroxide (Milk of Magnesia)

Step 3: If no bowel movement, take:

- Phosphate enema (Fleets enema)
- Magnesium Citrate

Follow-up Care:

- If no bowel movement within 4 days after surgery, call your surgeon's office for further instruction.

Spine Surgery Tool

Red Zone: Medical Alert

- Unrelieved shortness of breath
- Chest pain

Call 9-1-1 or go to the nearest
Emergency Room

Yellow Zone: Worsening Symptoms

- Temperature over 101.5 degrees farenheight
- Headache when sit/stand; relieved when lay down
- Significant increase in drainage from incision
- Colored or cloudy drainage from incision
- Odor or redness to the incision area
- New or significant increase of pain in arms/legs
- Significant increase of pain from previous day
- Difficulty swallowing/increased throat swelling
- No bowel movements in 3 days – refer to PCP and Managing Postoperative Constipation

Urgent Questions: Call the office during business hours. Call the “on call” surgeon on weekends, holidays & after office hours (540) 332-4000.

The operator will page the “on call” surgeon on your behalf.

Green Zone: Symptoms are Under Control

- Low grade temperature: 100.0-101.4°F
- Bruising and minor swelling
- Mild constipation
- Dressing change with possible light drainage
- Able to tolerate physical therapy

Non-urgent questions, call the surgeon’s office:

Augusta Health Spine Clinic:
(540) 245-7400

Hours: Mon-Fri 8am-4:30pm
Call Surgical Unit: (540) 332-4120
Nurses Station: (540) 332-4120

Remember:

- Take all medications exactly as ordered and pain medications as needed
- Keep ALL your follow-up appointments
- Drink plenty of fluids daily to help prevent constipation (unless ordered otherwise)
- Balance activity and rest
- Use Incentive Spirometer every two hours while awake for seven days

Augusta
Health™