MedStar Health

MEDSTAR GEORGETOWN UNIVERSITY HOSPITAL

MedStar Orthopaedic Institute

Spine surgery patient guide.

Your road to recovery.

It's how we treat people.

Your journey on your road to recovery.

Welcome to MedStar Georgetown University Hospital Spine Center. We are pleased that you have chosen us for your spine surgery.

Our spine experts at MedStar Georgetown perform more than 700 spine surgeries each year, supported by an expert team that will take care of you every step of the way. Our surgical team and staff consistently provide quality care and we continue to advance our techniques to make your surgical experience and outcome a success. We perform a variety of spinal surgeries and tailor our surgical recommendation to your symptoms and medical history.

Use this booklet as your guide on your road to recovery. Take it to all of your appointments (before and after your operation) and classes. It provides valuable details about preoperative activities, your surgery, postoperative activities, and your recovery. It also describes each team member you will meet on your journey.

We encourage you and your family to actively participate in your recovery. Our goal is to send you home safely understanding expectations for maximizing your rehabilitation.

Your Road to Recovery begins today!

Our MedStar Georgetown spine team: (back row, left to right) S. Babak Kalantar, MD; Allan Peng, PA; Michaela Brady, NP; Rachel Yep, NP; John Volatile, PA; Madeline Mascola, NP. (Front row) Jay Khanna, MD; Fred Mo, MD; Joseph Ferguson, MD.

Your appointments.

You will have numerous appointments during your journey so please use this section to help keep track of them.

Your surgery date: _____ Time: _____ with Surgeon: _____

Time you need to arrive: _____

Be sure to report to the Surgery Center, first floor of the Verstandig Pavilion, located in Entrance #1.

Preoperative appointments

You are responsible for making the following appointments:

- **Primary Care Physician** for any testing your surgeon's office requires.
  (2 to 6 weeks prior to surgery)

  Date: _____ Time: _____

- **Pre-Anesthesia Testing** (you will receive a call, text, or email and may need to come for an in-person visit depending on your medical history)

  Date: _____ Time: _____

Preparing for your journey—preoperative home checklist.

More than two weeks before surgery:

- Complete your visit and testing with Primary Care Physician
- Make arrangements for care after your surgery. Plan for someone to stay with you or plan to stay with a family member or friend until you are confident being on your own. Initially, you will likely need help bathing and dressing, preparing meals and taking medication.

Within two weeks of surgery:

- Have enough food available for your return home or arrange for someone to go shopping for you. Move food in the refrigerator to the upper shelves and toward the front for easy access during recovery.
- Do your laundry and change linens before leaving for the hospital.
- Consider the height of the vehicle that will take you home. Taller patients may have difficulty getting into smaller cars and shorter patients may have trouble getting into SUVs or larger vehicles.
- Wear or bring a pair of shoes or slippers with good support and nonskid soles.
- Have easy access to a bed and bathroom preferably on the same floor where you will be spending most of your time. The bathroom door should be wide enough to accommodate a walker.
- Assess the toilet to determine if a raised toilet seat will be necessary following your procedure. Typically, this is helpful for patients having a posterior spinal fusion or scoliosis surgery.
- Consider your need for a tub/shower seat and buy one, if needed. Tub/shower seats are not usually covered by insurance. They can be purchased at medical supply stores or home supply stores.
- Install handrails for any steps you may be using routinely. During your recovery, you may not be able to climb steps without the support of handrails.
- Remove rugs, extension cords, and any other obstacles that might cause you to trip.
- Fill any prescriptions.
- Have stool softeners and laxatives available. If you have a history of constipation, you may want to start using these before surgery.
- Have ice bags, ice packs, or bags of frozen peas to use on your spine. A heating pad is also helpful after surgery.
- Arrange your kitchen so that dishes, utensils, and pots and pans are at shoulder to waist height and are easy to reach.
- Have a comfortable chair with sturdy arms to help you stand up.
- Stop smoking. (Please note that MedStar Georgetown University Hospital is a nonsmoking facility.) If you would like resources to help you quit smoking, please speak with your healthcare provider.

Seven days before your surgery:

- As directed by your physician, stop taking any medications that may interfere with your surgery. (See pages 5 and 6.)
- Confirm the time you need to arrive at the hospital on the day of your surgery. This is usually two hours before your surgery time.
- Review the above checklist and ensure you have completed these items.
- Ensure you have completed your pre-admissions testing and you have your medical clearance from your primary care provider.

Four days prior to surgery:

- Starting four days prior to surgery, shower daily with an anti-microbial soap called Chlorhexidine (brand name Hibiclense) AND again the morning of surgery. This is the best way to prevent post-operative infection. See next page for further details.

Do NOT:

- Eat or drink after midnight before your surgery (this includes candy, gum, and mints)
- Smoke after midnight

Shower using Chlorhexidine Gluconate (CHG) to prevent infection.

Taking at least five showers using CHG soap provides the best protection because it blocks germ growth. Be sure to follow the steps below carefully.

Step 1
- Rinse body with warm water. Wash hair with regular shampoo. Rinse well and do not use conditioner.

Step 2
- Pour a quarter-sized amount of CHG soap onto a clean, wet washcloth then rub over the entire body from neck to toes using gentle friction. Avoid contact to eyes, ears, nose, and mouth.
- Rub for five minutes focusing on the surgery area and surrounding skin.
- Put more CHG soap on the washcloth and lather again. Allow the CHG soap to remain on the skin for two minutes. Do not wash using regular soap after showering using CHG soap.

Step 3
- Rinse the body well. Use clean towel to dry the body with each shower.

Step 4
- Put on clean clothes and use clean bed sheets each time you shower using CHG soap.

Step 5
- Take five showers following steps one to four beginning the fourth night before the day of surgery.

Important Reminders:
- **Do not shave/remove body hair. If you are having head surgery, ask your doctor if you can shave.**
- **Do not use cream, lotion, powder, deodorant, or hair conditioner after taking a shower.**
- **CHG is safe to use on minor wounds or rashes.**
- **CHG can be purchased over the counter at any pharmacy.**
- **Allergic reaction is rare. If you are allergic to CHG soap, do not use and replace with a regular anti-bacterial soap.**

Four nights before surgery **Date:** _____

Three nights before surgery **Date:** _____

Two nights before surgery **Date:** _____

One night before surgery **Date:** _____

The morning of surgery **Date:** _____

Medications to stop prior to your surgery.

30 days prior to surgery

- **Rheumatoid arthritis/Psoriasis/Autoimmune/Biologic medications**

  Inform your prescribing doctor that you need to stop the medications in this list before surgery. (See page 6.)
- **Please discuss the following medications with your prescribing provider and surgeon's office to determine if they can or should be stopped before surgery:**
  - Mycophenolate mofetil
  - Azathioprine
  - Cyclosporine
  - Tacrolimus
  - Belimumab (Benlysta)

Up to 10 days prior

- **Blood thinners–**If prescribed by cardiology, hematology, or primary care doctor, please consult with them to ensure it is safe to stop for the specified amount of time. **(See table page 6.)**
- **Do not** hold your medication longer than instructed. If the prescribing doctor informs you that it is not safe to stop the medication, **please let your surgeon know ASAP.**

Eight (8) days prior

- **GLP-1 agonists (weekly injections)** such as semaglutide *(Ozempic/Wegovy),* tirzepatide *(Mounjaro/Zepbound),* dulaglutide *(Trulicity)*, liraglutide *(Victoza)*, albiglutide *(Eperzan/Tanzeum),* or exenatide *(Bydureon)*.

*****If you are newly prescribed a GLP-1, please wait until after surgery to begin taking it.**

- If you have recently increased your dose or began taking a GLP-1 in the last 5 months, you may need to drink clear liquids (no solid food) for 24 hours before your surgery time to decrease your aspiration risk. See https://www.medstarhealth.org/services/preparing-for-anesthesia for more info.
- Daily injections *(Soliqua)* or pills *(Rybelsus)* only need to be stopped on the day of surgery.

Seven (7) days prior

- Nonsteroidal anti-inflammatories (NSAIDs). If you take aspirin for pain, please discontinue at this time including Bayer Select, Doan's Pills, Magan, Mobidin, Mobogesic.
- **Select blood thinners (See table page 6.)** If prescribed by cardiology, hematology, or primary care doctor, please consult with them to ensure it is safe to stop for the specified amount of time in table on page 6.
- **Over-the-counter supplements**

Five (5) days prior

Phentermine (alone or in combination pills).
If you take any Phentermine within 5 days of surgery, your surgery may need to be canceled for your safety.

- **Aspirin and nonsteroidal anti-inflammatories** Aspirin taken for medical reasons (including over the counter). If prescribed by cardiology, hematology, or primary care doctor, please consult with them to ensure it is safe to stop for five days.
- **Select blood thinners (See table page 6.)**

Three (3) days prior to surgery stop

- **SGLT-2 Inhibitors:** Stop three (3) days before surgery (alone and in combination pills): canagliflozin *(Invokana, Invokamet),* dapagliflozin *(Farxiga, Xigduo, Qtern)*, and empagliflozin *(Jardiance, Synjardy, Glyxambi, Trijardy XR)*.
- **Ertugliflozin** *(Steglatro, Segluromet, Steglujan)* should be stopped for four (4) days before surgery.
- If you have diabetes, check your blood sugar twice a day and call your prescribing doctor if your blood sugar is higher than 250.
- **Select blood thinners (See table page 6.)**

One (1) day prior and morning of surgery

Pre-Anesthesia will contact you if you need to hold any other medications the day before or morning of surgery. Otherwise, continue taking your blood pressure medication,etc. as you normally would.

Acetaminophen (Tylenol), tramadol (Ultram), and celecoxib (Celebrex) can be taken up until midnight before surgery. Celebrex/celecoxib may also be resumed immediately after surgery.

See patient medication worksheets on pages 7 and 8. Make sure to fill these out and bring with you the day of surgery.

Brand names of medicines from page 5 to stop taking.

Rheumatoid arthritis/Psoriasis/Autoimmune/Biologic medications

- Infliximab (Remicade)
- Golimumab (Simponi)
- Rituximab (Rituxan)
- Tocilizumab (Actemra)
- IL-17 secukinumab (Cosentyx)
- Risankizumab (Skyrizi)
- IL-23 guselkumab (Tremfya)
- Baricitinib (Olumiant)
- Adalimumab (Embrel)
- Abatacept (Orencia)
- Certolizuman (Cimzia)
- Anakinra (Kineret)
- Ustekinumab (Stelara)
- Ixekizumab (Taltz)
- Tofacitinib (Xeljanz)
- Upadacitinib (Rinvoq)

Aspirin and nonsteroidal anti-inflammatories like:

- Aspirin (Anacin, Ascriptin, Bayer, Bufferin, Ecotrin, Excedrin)
- Choline magnesium trisalicylates (CMT, Tricosal, Trilisate)
- Diclofenac potassium (Cataflam)
- Diclofenac sodium (Voltaren, Voltaren XR)
- Diclofenac sodium with misoprostol (Arthrotec)
- Diflunisal (Dolobid)
- Etodolac (Iodine, Lodine XL, Ultracet, Ultradol)
- Fenoprofen calcium (Nalfon)
- Flurbiprofen (Ansaid)
- Ibuprofen (Advil, Motrin, Motrin IB, Nuprin)
- Indomethacin (Indocin, Indocin SR)
- Ketoprofen (Actron, Orudis, Orudis KT, Oruvail)
- Ketorolac (Torodol)
- Magnesium salicylate (Arthritab)
- Meclofenamate sodium (Meclomen)
- Meloxicam (Mobic)
- Mefenamic acid (Ponstel)
- Nabumetone (Relafen)
- Naproxen (Naprosyn, Naprelan)
- Naproxen sodium (Aleve, Anaprox)
- Oxaprozin (Daypro)

Blood thinners—When to stop before surgery

Aspirin	**5 days**	**Lovenox (Enoxaparin)**	**24 hours**
Brilinta (Ticagrelor)	**5 days**	**Plavix (Clopidogrel)**	**7 days**
Coumadin (Warfarin)	**5 days**	**Pletal (Cilostazol)**	**2 days**
Effient (Prasugrel)	**10 days**	**Pradaxa (Dabigatran)**	**5 days**
Eliquis (Apixaban)	**3 days**	**Xarelto (Rivaroxaban)**	**3 days**

Day of procedure patient medication lists.

Date:_____

Patient's full name:_____ Patient's date of birth: _____

If you have already reviewed this information with the surgeon's office or the Pre-Anesthesia team, a pre-op nurse or clinician **must confirm** and document medications and allergies **on the day of the procedure** for the safety of our patients.

If you take insulin, please include the medication name, amount, and time(s) of the day.

Complete this form and bring it to the hospital on the day of the procedure.

Medication Name(s) Prescription(s), over-the-counter	**Amount** (mg, units, etc.)	**Frequency** (a.m., p.m., 3x/day, etc.)	**Date/Time** last dose was taken

Patient medication allergies.

Date:_____

Patient's full name:_____ Patient's date of birth: _____

Are you allergic to any medication(s)? ❑ Yes ❑ No

If yes, please provide the name(s) of the medication(s) and the patient's reaction(s) in the table below:

Complete this form and bring it to the hospital on the day of the procedure.

Medication Name(s)	Allergic reaction(s) description

Meet your team.

Physicians
On the day of surgery your orthopaedic surgeon and an anesthesiologist will meet with you just before your surgery. After surgery, your physician team will check on you daily to oversee your progress.

Nurse practitioner
Before and after your surgery, you will work with a nurse practitioner (NP) who communicates with the other members of the spine team—the physician, nursing staff, case manager, and physical and occupational therapists—to ensure that you are ready for surgery and assist you during recovery. The NP works closely with the physician and nursing staff during recovery to ensure that your medical needs are met and to assist you with the discharge process. The NP also works with you to make sure your pain is well controlled after your surgery has been completed.

Physician assistant
The Physician Assistant (PA) will work in conjunction with your surgeon to care for you during the perioperative period. The PA may evaluate you before and after surgery as well as assist in surgery. The PA will also address concerns over the phone.

Nursing staff
An experienced staff of registered nurses and patient care technicians will care for you while you are in the hospital. Our nursing staff is specially trained in different areas of patient care: preoperative nurses who prepare you for surgery; operating room nurses who assist the surgeons; postanesthesia care unit (PACU) nurses who monitor your vital signs after surgery; and nurses on the patient care unit who will help you learn about surgery as you recover. The nursing staff will work with the orthopaedic team to ensure that you are moving properly and frequently, your pain is controlled, and your needs are met. The nurses also will communicate directly with your case manager about your progress to determine your final discharge plan.

Patient Care Coordinators (PaCC)
Even before you enter the hospital for surgery, you will be assigned a Patient Care Coordinator, or PaCC. This person is a licensed nurse or social worker who will be your advocate as you navigate through the services you need for a successful surgery and recovery. They will work with you, your family, your medical team, and your insurance to create an appropriate pathway to return to maximal functioning. Your PaCC will contact you before surgery to help you create an anticipated plan of care, follow you through your hospital stay, and continue to be a resource throughout recovery should your needs change.

Physical therapists
Each day in the hospital you will meet with a physical therapist (PT). The PT will show you how to move safely from sitting to standing and how to walk safely. The PT also will help you use assistive devices properly for therapeutic exercises.

Occupational therapists
Every other day in the hospital you will meet with an occupational therapist (OT). The OT will assist with transfers, self-care, and how to use equipment to help with dressing and/or bathing.

Pain management team
The pain management team may be consulted to help effectively control your pain symptoms. They will work with you to achieve the most successful pain medication regimen for you.

Other staff
Pharmacists and medical technicians work under the direction of the physician and nursing staff to care for any special needs you may have.

Your road to recovery.

Day of surgery

- On the morning of your surgery take any medications approved by Pre-Anesthesia Testing with a small sip of water. These may include medications for high blood pressure, heart conditions, anxiety, depression or seizures.
- Take a shower the night before and the morning of your surgery with chlorhexidine wash. Brush your teeth but do not swallow any toothpaste.
- Wear clean clothes.
- Notify your surgeon immediately if you have a cold, show signs of infection (such as nasal drainage or toothache), if you are being treated for or think you may have a urinary tract infection or experience any changes in your physical condition.
- Leave all valuables (cash, credit cards, jewelry, laptop computers and cell phones) at home on the day of your surgery.
- Arrive at the Surgery Center, using Entrance 1, two hours before your surgery. Use Garage 2 if you need a wheelchair or would like to valet park. Then, report to the Surgery Center. (Refer to map on page 25.)

Do Not

- Eat or drink after midnight the night before your surgery (no candy, gum, or mints).
- Smoke on the day of surgery.
- Apply makeup or lotions.
- Wear jewelry (including wedding rings) or contact lenses.

What to bring to the hospital

- Driver's license or passport for identification
- Insurance cards
- Form of payment for prescription copays
- Copies of advance directive or living will (if you have them)
- A list of all your medications including when you take them and the dosage. Be sure to include both prescription and over-the-counter medicines.
- Toiletries (toothbrush, brush, deodorant)
- Personal items (glasses, hearing aids)
- Footwear (non-skid soles or rubber soled shoes with good traction like tennis shoes)

Your family may accompany you to the Surgery Center. When you are taken to the operating room, they will be directed to a family waiting area. Your family will be given updates on your condition when your surgery is finished. The anesthesia team will evaluate your medical history and determine the best anesthesia for you. General anesthesia is used for all spine surgeries.

- After your surgery, you will be moved to the postanesthesia care unit (PACU) or recovery room. Here, you will be monitored closely to make sure your pain is well controlled and your vital signs are stable.
- When the anesthesia team determines that your condition is stable and a bed is available, you will be moved to the inpatient unit.
- Following your surgery, your nurse will get you out of bed to a recliner chair, if appropriate.
- You may have a drain(s) placed at the site of your surgery to prevent blood from pooling in the wound. It usually is removed on the first day or two after surgery.
- Sequential compression devices (SCDs) will be applied to your legs to prevent blood clots from forming. Blood thinning medications are not routinely used after spine surgery. Wear your SCDs when you are in bed.

Day one after surgery

- The orthopaedic service will see you at least once a day to assess your condition and evaluate your progress.
- Physical therapy and occupational therapy will evaluate you. A PT will typically work with you once a day and an OT will see you two to three times during your stay.
- You likely will have pain symptoms and may begin taking your pain medication by mouth.
- You will have blood drawn to check your hemoglobin. If it is low, we may give you blood to increase your energy level and improve your physical stamina.
- You will learn the basic spine precautions after surgery: **no bending, no lifting more than 10 pounds, no twisting.** Adhere to these post-spine surgery precautions until you are directed otherwise by your surgeon's office.
- Your postoperative plan will be reviewed and discussed with your case manager.
- Depending on the type of surgery performed you may be discharged if your pain is controlled and your surgeon has cleared you for discharge.
- Continue to wear your SCDs while in bed.

Day two after surgery, preparing for discharge

Depending on the type of surgery that you have, our goal is to have you ready for discharge on the second day after surgery. In order to be discharged from the hospital, you will have to meet the discharge criteria as well as be medically stable to go home. To prepare for your discharge:

- Physical therapy will continue to work with you.
- An OT will continue to work with you to assess that you can bathe and dress. An OT will also continue to assess how you move from sitting to standing and that you can safely perform daily activities.
- No bending, no lifting more than 10 pounds, no twisting.
- Continue wearing SCDs in bed.
- You will be discharged to a setting determined by you and your healthcare team to be appropriate for you.

Heading home

We want to make you as comfortable as possible when you get home which includes making sure that you have the medications that were prescribed to you at discharge. Because every patient's prescription drug plan can be different, it is highly encouraged that you look into prescription drugs covered by your plan. This can eliminate a lot of frustration in the immediate post-operative period. Sometimes a prior authorization is needed for certain medications, which can cause a delay in receiving your prescription as your insurance company needs to be contacted by the spine center. Below is a listing of the most commonly prescribed medications at hospital discharge. If there is a drug that is not covered by your insurance, please alert the inpatient care team that is involved in your discharge.

- Oxycodone
- Percocet (Oxycodone/Acetaminophen or APAP)
- Vicodin (Hydrocodone/Acetaminophen or APAP)
- Dilaudid (Hydromorphone)
- Valium (Diazepam)
- Flexeril (Cylobenzaprine)
- Skelaxin (Metaxalone)

- You will continue to improve and feel better each day.
- When you leave the hospital, you will be given prescriptions for pain medications, muscle relaxants and stool softeners. We highly recommended that you fill your prescriptions at MedStar Georgetown University Hospital before leaving the hospital.
- We do not prescribe a blood thinner after spine surgery because of the risk for developing an epidural hematoma (collection of blood in your spine). If you were taking any type of blood thinner prior to surgery, including aspirin, Plavix, Coumadin or Xarelto, contact your surgeon's office to determine when you can resume these medications.
- We do not typically send a back brace home with you because you may become reliant on it; back braces can weaken your back muscles. Your surgeon will determine if you need a back brace and will discuss using one with you.
- If you have had neck surgery, you may be sent home with either a hard or soft collar. Your surgeon will determine if you need a neck collar and will discuss using one with you.
- You may shower after you get home, but do not submerge your incision in water (in a pool or bath, for example) for six weeks.
- You will see a nurse practitioner or physician assistant for your two-week follow-up after your surgery.

  This appointment is made at the time your surgery is scheduled. If you are not sure when your appointment is, please call:
  – 202-444-1776 for Dr. Mo,
  – 202-444-0830 for Dr. Kalantar,
  – 202-444-8613 for Dr. Ferguson, or
  – 202-444-8730 for Dr. Khanna.
- **Contact us if you develop a fever (a temperature greater than 101 degrees Fahrenheit); if you notice increasing redness around your incision or drainage from the wound; have calf pain or tenderness; or if your pain medication isn't controlling your pain.**

  If you had an anterior cervical surgery and develop worsening difficulty swallowing or difficulty breathing, please contact the office.

Next stop? Rehabilitation services after surgery.

Home care

Home health services help patients who are medically stable enough to return home, but who are homebound for a period of time. In these instances, a physical therapist, occupational therapist and/or registered nurse will periodically visit your home. The nurse will assess your post surgical progress and continue to educate you about your medications. The nurse will report any changes in your progress to your physician.

A licensed physical therapist will evaluate you in your home to determine your functional level. This is an assessment of how well you are performing activities such as getting in and out of bed and walking. During visits, your physical therapist will provide ongoing education about the rehabilitation process, demonstrate exercises, and work with you to improve your functional ability.

The goal of home care, should you need it, is to get you back into the community and to the next level of care on the rehabilitation continuum: outpatient services. Typically, home care may last two to six weeks after surgery.

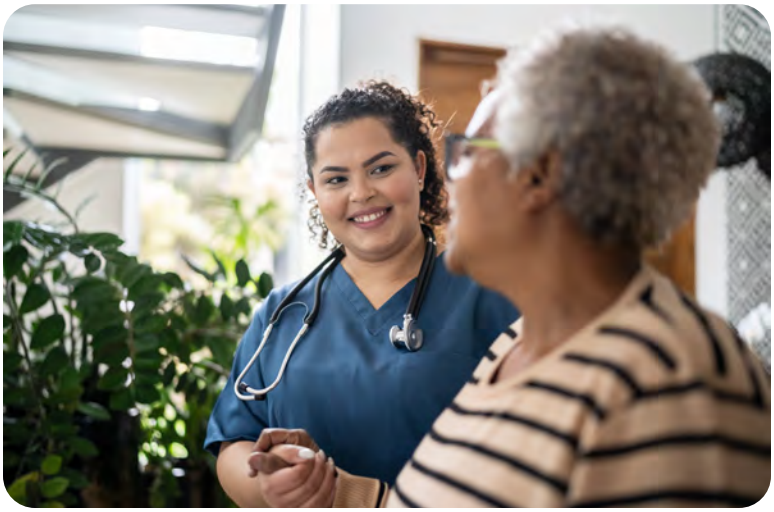
You will be provided a list of home health agencies during your hospital stay and you may choose any agency on that list. MedStar Georgetown University Hospital provides home care services through MedStar Visiting Nurse Association. Any home care services that you may need once you are home will be arranged prior to your discharge from the hospital. It is important to note that not every patient needs home physical therapy. Your therapist in the hospital will help determine if you qualify for home therapy services. (See page 24 for home health agencies.)

Subacute rehabilitation in a skilled nursing facility

Nearly all patients are able to return home directly after their spine surgery at MedStar Georgetown. However, if your surgeon and therapy team feel it is unsafe for you to discharge home, they will recommend subacute rehabilitation.

Subacute rehabilitation is typically provided in a skilled nursing facility. The nursing staff routinely monitors your vital signs and manages your medications. You usually receive one to two hours of therapy a day, five to six days a week.

If indicated, you will be provided a list of skilled nursing facilities, and you may choose any provider on that list. Acceptance will depend on insurance authorization and bed availability.



Acute rehabilitation

Patients recovering from spine surgery rarely need the services provided in an acute rehabilitation center. This level of care is for those who require intense rehabilitation. Only those patients with significant medical conditions qualify for acute rehabilitation. The goal of inpatient rehabilitation is to restore your functional ability so that you can safely transition to the next level of care.

Outpatient services

Many spine surgery patients complete their rehabilitation in an outpatient center. An outpatient setting provides additional learning experiences and access to more equipment than is available in the home setting. This type of care helps patients get out of their homes and into the community in a setting equipped to help them reach their highest functional ability. Your surgeon likely will not refer you to an outpatient center until at least six weeks after your surgery.

You may choose where you receive outpatient services. We are proud of the outpatient therapy services provided in MedStar Georgetown Physical Medicine and Rehabilitation Department, which specializes in treating patients with orthopaedic injuries or postsurgical conditions.

Your discharge recommendation can change at any time during your hospital stay as your mobility improves. Changes will be discussed with you, your family and your case manager. Our goal is to discharge you to the safest setting possible and the setting that benefits you the most. Your case manager will facilitate rehabilitation services with your insurance plan. It is your responsibility to ensure the providers you have chosen are in network with your healthcare plan.

You have now returned home.

Adaptive equipment

After your spine surgery, it is important to take precautions to protect your spine while you recover. It may be necessary to use adaptive equipment to assist you with your daily activities, such as dressing, during your recovery period. The therapy team will teach you how to use this equipment and recommend appropriate equipment. Your case manager will help you get the equipment you will need. Most of the equipment listed below is not covered by your insurance, so you may want to explore options when buying this equipment. These items can be found at medical supply stores or from online vendors.

Walker

Cane

Elevated toilet seat

Chair cushion

Tush cush

Grab bars

Shower seat

Long handled shoe horn

Reacher (provided to you by MedStar Georgetown University Hospital)

Sock aid (provided to you by MedStar Georgetown University Hospital)

Transfer instructions

During your stay, your therapy team will show you how to get in and out of bed, and how to walk and negotiate stairs, while adhering to your spinal precautions.

Getting out of bed

1. While lying on your back, bend both knees.
2. Roll onto your side. Allow your shoulders and hips to move together, keeping your spine straight.
3. Use your bottom hand underneath your shoulder to raise your upper body, and lower your legs to the floor.

Getting into bed

1. Sit near the head of the bed, as close to the pillow as possible.
2. Scoot your hips back onto the bed.
3. Lower onto your side using your arm to guide you; bend your knees up and pull your legs onto the bed
4. Keep your knees bent. Roll onto your back. Move your shoulders and hips together, keeping your spine straight.

Your therapist may show you different ways to get in and out of bed depending on your situation. Follow the instructions you are given.

Getting into a vehicle

1. On the passenger side, make sure the seat is as far back as possible. Stand with your back toward the vehicle.
2. Sit on the edge of the seat and slide yourself back. Sitting on a plastic bag may make it easier to slide (a garbage bag works well).
3. Swing your legs into the vehicle. You may need help to guide your legs into the vehicle.
4. If you have long legs, be sure to scoot back as far as you can. You may also want to recline the seat so you will have as much room as possible to swing your legs into the vehicle.

To get out of the vehicle reverse the steps above.

Precautions

NO B.L.T.–No bending, no lifting, no twisting!

Your surgeon will tell you when you may resume bending, lifting and twisting. It is important to give your spine time to properly heal. These restrictions typically remain in place for at least six weeks after surgery. As you progress in your recovery, your surgeon will gradually lift these restrictions. Be sure to ask your surgeon if you have questions.

You are not allowed to lift anything heavier than 10 pounds for the first several weeks following surgery. At your follow-up appointments, your surgeon will tell you when and how you can begin lifting.

Spine exercises

During your inpatient stay, your therapy team will instruct you on various exercises that will help you regain your strength and endurance. Walking is the best exercise for you as you recover from spine surgery. These additional exercises will work the muscles you need to walk and climb stairs.

Buttock squeezes

- Lie on your back with your legs straight.
- Squeeze your buttocks together.
- Hold 3-5 seconds.

Reps: _____

Sets: _____

Times per day: _____

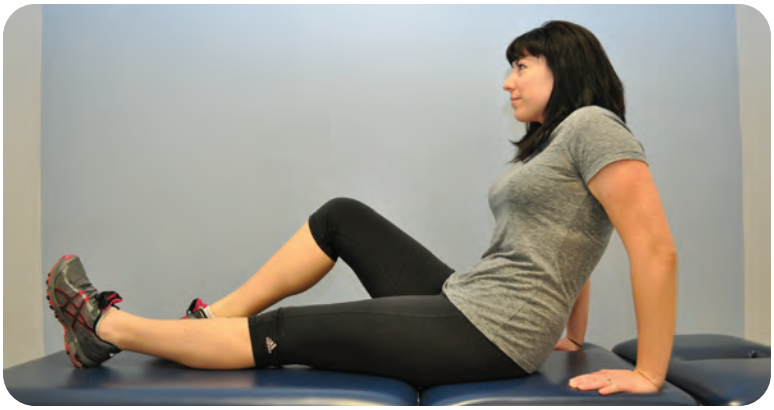
Quad set

- Sit with your leg extended.
- Tighten your quad muscles on the front of your leg, trying to push the back of your knee downward.

Reps: _____

Sets: _____

Times per day: _____



Ankle pumps

- Lie on your back with your foot elevated on a pillow.
- Move your foot up and down, pumping your ankle.

Reps: _____

Sets: _____

Times per day: _____

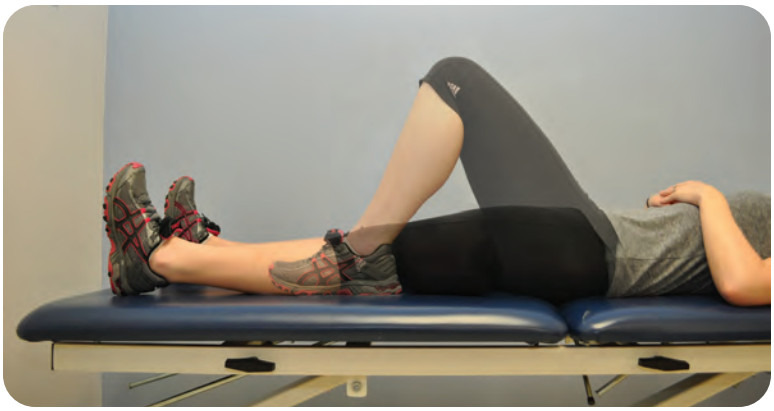
Heel slides

- Lie on your back on a firm surface with your legs together.
- Move your leg out to the side, keeping your knee straight.
- Return to the start position.

Reps: _____

Sets: _____

Times per day: _____



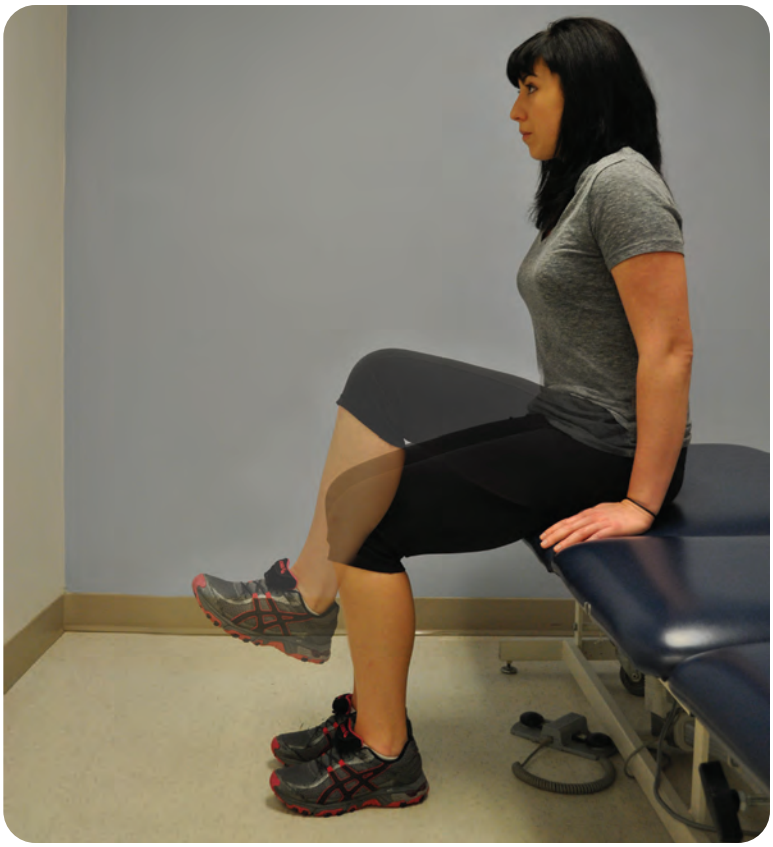
Seated marching

- Sit in a chair with your hips and knees at 90 degrees.
- Lift up your left leg as shown.
- Lower your leg. Repeat with your right leg.

Reps: _____

Sets: _____

Times per day: _____



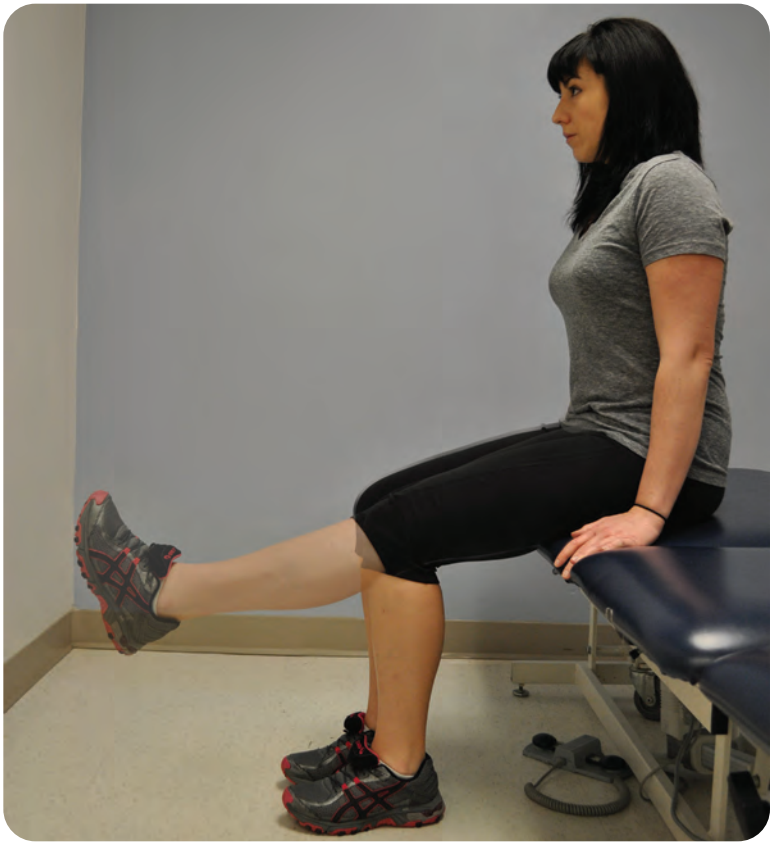
Kicks

- Sit in chair, slowly kick one leg back and forth, allowing heel to touch mid swing to rest.
- Repeat with opposite leg.

Reps: _____

Sets: _____

Times per day: _____



Special Instructions: Do NOT hold your breath. Focus on one leg at a time.

Frequently asked questions about spine surgery.

1. **How long will I be restricted from no bending, no lifting and no twisting?**
   These restrictions will last for several weeks following your surgery. The type of surgery you had will determine when you can resume these activities. Typically, a fusion surgery restricts your activities for longer because the restrictions cannot be lifted until bone fusion has occurred.

2. **How long will it take for fusion to occur?**
   Fusions can begin within six weeks and can take up to a year to finish. If you smoke or have poorly controlled diabetes, a fusion can take longer to occur.

3. **Can I take NSAIDs?**
   You cannot take NSAIDs, including Advil, Ibuprofen, Aleve, Naproxen, and Mobic for three months after your surgery if you are having a fusion procedure. These medications can alter the fusion process. Do not take them until advised to do so by your surgeon. If you are not having a fusion, you may be eligible to start these medications sooner. Please discuss with your surgeon.

4. **Am I allowed to smoke cigarettes?**
   No, you are not allowed to smoke. It impairs the healing process and can lead to fusion failure. If you are smoking after your surgery, we encourage you to limit the number of cigarettes each day.

5. **Do I need to wear a brace after surgery?**
   Your surgeon will inform you if you need to wear a brace after your surgery. This recommendation will depend on the type of surgery you had.

6. **When can I travel?**
   Your ability to travel will be discussed at your two-week follow-up appointment. Distance and type of travel are important considerations. Travel is usually approved six weeks from your surgery date. If you plan to travel, discuss your plans at your two-week visit.

7. **When can I drive?**
   Typically, you are cleared to drive four to six weeks after your surgery date. If you have a microdiscectomy or laminectomy you may drive sooner following surgery. If you have scoliosis surgery, you may not be able to drive for six to eight weeks following surgery depending on how your recovery is progressing. You may be a passenger in a car following surgery but you should limit the amount of time in a car for your safety and comfort. You are not permitted to drive a car while you are taking narcotic pain relievers.

8. **When can I have alcohol?**
   You are allowed to drink alcohol once you have stopped taking narcotics.

9. **When can I resume my vitamins and/or herbal supplements?**
   You may start taking vitamins and other herbal supplements again after your two-week postoperative visit. If you are taking vitamins and herbal supplements, please let the Spine Center office know so that we can note your use in your record as well.

10. **Do I have to follow up at MedStar Georgetown University Hospital for my postoperative care?**
    While we strongly encourage you to follow up at MedStar Georgetown for your postoperative care, we realize that this may not be possible for every patient. If you were seeing a particular spine surgeon prior to your surgery and would like to resume seeing that physician following your surgery, please let us know prior to your surgery. We recommend patients be seen two and six weeks after surgery, with X-rays taken at six weeks.

11. **Will my spine hardware set off the metal detectors at the airport?**
    Your implant is made from titanium, which usually does not trigger airport metal detectors.

12. What type of exercise can I do following my surgery?

We encourage all spine patients to walk immediately postoperatively. Walking is good for you and you may walk as much as you like. Start slowly and try to increase distance as pain and fatigue permit. If you receive home health services once you are home, we recommend you perform exercises with the therapist and independently, in addition to walking. At six weeks postoperatively you can exercise on an elliptical machine and a recumbent bike. Typically, a spine surgery patient isn't cleared for running until three to six months after surgery. Once a bone fusion has occurred, you may resume almost any activity. Please discuss your specific activity interests with your surgeon before and after your surgery.

13. How do I use my neck collar at home?

If you have been instructed to wear a collar full time, you can take it off four to five times each day for 15 minutes. However, keep your neck straight as much as possible when the collar is off. If you have been instructed to wear a collar while showering, the collar will be provided to you before you leave the hospital. If you have not been given a shower collar, you may shower without a collar. You can remove the collar to shave, but try not to flex or extend your neck while shaving. Look straight ahead as you shower and shave. If you have been instructed to wear a collar for comfort only, you may wear the collar at your discretion if you feel that it provides comfort. If you do not want to wear it, you do not have to. Some patients will be instructed not to wear a collar.

14. Can I put anything on my incision?

To reduce the possibility of developing an infection, we advise that you do not put any lotions, ointments or creams on your incision. You may apply a dry dressing to your incision and change it daily. However, dressings usually aren't necessary after your two-week postoperative visit. Once your incision has healed, usually within four to six weeks after your surgery, your surgeon will tell you whether you may apply lotions, soaps, creams or ointments to your incision. Please check with your surgeon if you have questions about your incision.

15. How long should I take pain medicine?

You can expect to have pain after your surgery, and medications will be prescribed to help relieve your pain. Our goal is to discontinue pain medications as soon as possible. Some people may require pain medications for longer depending on the type of surgery. If your pain is mild, take Extra Strength Tylenol every six to eight hours. Do not take any NSAIDs, such as Advil, Aleve, Ibuprofen or Motrin for three months after your surgery (if you have had any type of fusion surgery).

16. Can I obtain a disabled parking permit for the period of limited mobility after the surgery?

Yes. You can get a form from the Department of Motor Vehicles where your car is registered and fax, mail, or drop it off at your surgeon's office to have it completed. These permits usually are temporary for approximately three to six months after surgery.

17. Am I allowed to have my hair done at my hair salon?

You will not be able to rest your head and neck in the washbowl for approximately three months after surgery because this motion places extra stress on your spine and can be uncomfortable for you. Keep these restrictions in mind when you schedule hair appointments. You may have your hair cut and styled if it only requires sitting in the stylist's chair with your head and neck in an upright position.

S. Babak Kalantar, MD
Chief
Division of Spine Surgery
Department of Orthopaedics
Co-Director, MedStar Spine Center

Fred Mo, MD
Chief of Spinal Deformity Surgery

Joseph Ferguson, MD
Spine Surgeon
Department of Orthopaedics

A. Jay Khanna, MD
Chair of Orthopaedic Surgery, Georgetown University School of Medicine
Physician Executive Director, MedStar Orthopaedic Institute

Michaela Brady, CRNP

John Volatile, PA-C

Madeline Mascola, CRNP

Allan Peng, PA-C

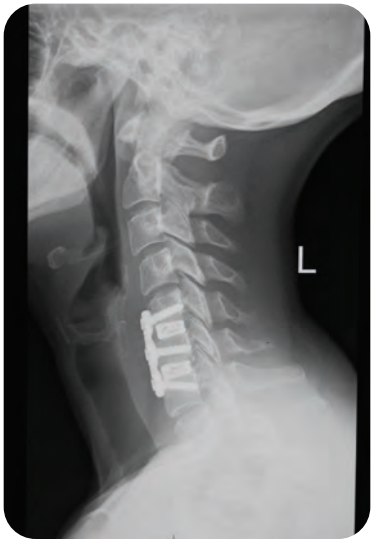
Rachel Yep, CRNP

Spine surgeries at MedStar Georgetown University Hospital.

Neck surgeries

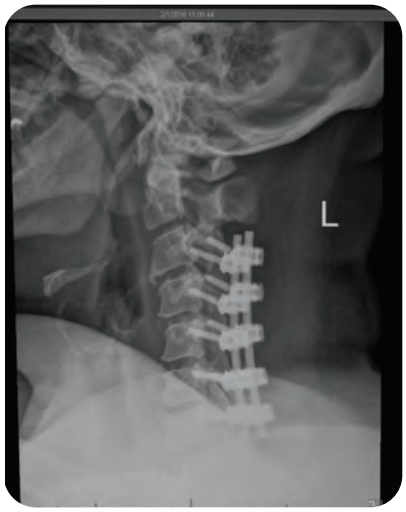
Anterior Cervical Decompression and Fusion (ACDF)

Anterior cervical decompression and fusion (ACDF) is surgery designed to relieve spinal cord or nerve root pressure in the neck by removing all or part of a damaged disc. This procedure starts with an incision in the FRONT of the neck. Your surgeon will relieve the compression by removing the problematic disc(s) or bone spur(s) This is called "discectomy" or "decompression." The second part of the operation involves fusing the affected bones so that they become one unit. This is called a "fusion." Fusion helps to stabilize the neck. Bone graft material and a titanium plate are necessary to perform the fusion. The titanium plate is specially engineered for cervical neck surgery. The plate is held to the spine with precisely manufactured screws. The plate stabilizes the spine to the bone graft so that it can fuse properly. Fusing one level of the cervical spine results in approximately five to 10 percent less motion. However, the majority of patients do not notice much difference in range of motion in their neck. Only the level(s) requiring decompression and fusion will be surgically repaired; the rest of the spine is left alone. During the surgery a neurologist closely monitors your nerves and carefully assesses your nerve function. You will be monitored with X-rays beginning at six weeks postoperatively.



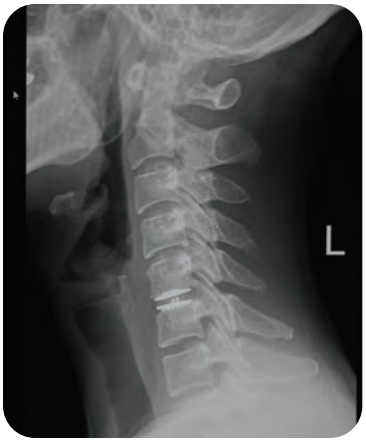
Posterior Cervical Fusion (PCF)

Posterior cervical fusion (PCF) is similar to anterior cervical decompression and fusion; however, the incision is made in the BACK of the neck. Your surgeon will relieve the compression by removing the problematic bone spur(s) This is called a "decompression." The second part of the operation involves fusing the affected bones so that they become one unit. This is called a "fusion." Fusion helps to stabilize the neck and prevent further nerve or spinal cord compression at that level. A bone graft, rods, and screws are necessary to perform the fusion. The rods and screws stabilize the spine. Fusing one level of the cervical spine results in approximately five to 10 percent less motion. However, the majority of patients do not notice much difference in range of motion in their neck. Only the level(s) requiring decompression and fusion will be surgically repaired; the rest of the spine is left alone. During the surgery a neurologist closely monitors your nerves and carefully assesses your nerve function. You will be monitored with X-rays beginning at six weeks postoperatively.



Cervical Disc Replacement

Cervical disc replacement (CDR) involves removing a damaged or degenerated cervical disc and replacing it with an artificial disk device. This device is typically made of two metallic surfaces: One attaches to the upper vertebra, and the other attaches to the lower vertebra at the affected level. The intent of the device is to preserve motion at the disc space. It is an alternative to bone grafts, plates, and screws used during a fusion, which eliminates motion at the operated disc space in the neck. Cervical disc replacement surgery is typically done for patients with cervical disc herniation that is significantly affecting the individual's quality of life and ability to function and that has responded to nonsurgical treatment options.



Artificial disc surgery may be performed instead of an anterior cervical discectomy and fusion. Advantages of an artificial cervical disc rather than fusion include:

- Maintaining normal neck motion
- Reducing degeneration of adjacent segments of the cervical spine
- Eliminating the need for a bone graft
- Early postoperative neck motion
- Faster return to normal activities

Your surgeon will determine if you are an appropriate candidate for cervical disc replacement.

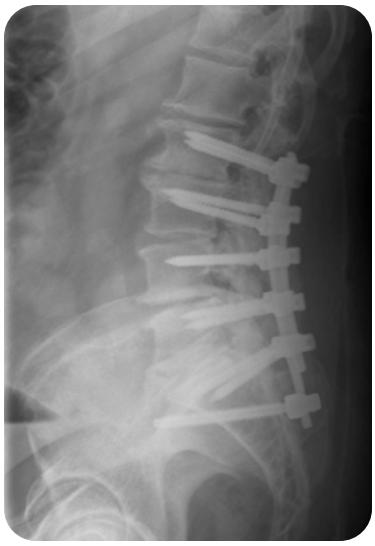
Laminoplasty

Cervical laminoplasty is a surgical technique that removes pressure from the spinal cord in the neck. Pressure on the spinal cord can be due to various causes including degenerative changes, arthritis, bone spurs, disc herniations, tumors, or fractures. Frequently this spinal cord pressure, called spinal stenosis, can occur at multiple levels of the cervical spine at the same time. If this pressure is severe enough, symptoms called myelopathy can develop. Laminoplasty may be an excellent option to remove the pressure.

Mid and low back surgeries.

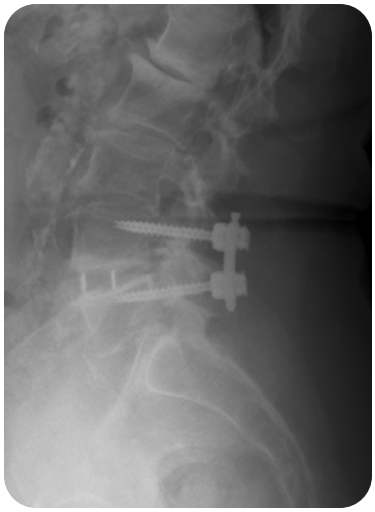
Posterior Spinal Fusion (PSF)

Fusion is a surgical technique in which one or more of the vertebrae of the spine are united ("fused") and motion between them no longer occurs. The concept of spinal fusion is similar to fusion in commercial welding. However, spinal fusion doesn't produce an immediate result, as does a welded repair. Rather, during spinal fusion surgery, bone grafts are placed around the spine and your body heals the grafts over several months, similar to how it heals a bone fracture. Your body fuses, or "welds," the vertebrae together.



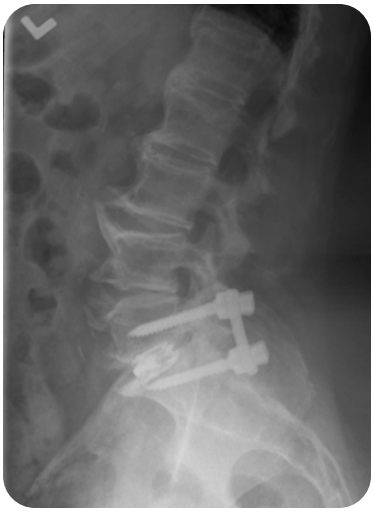
Extreme Lateral Interbody Fusion (XLIF)

Extreme lateral interbody fusion (XLIF) technique is a minimally invasive surgical procedure performed through the side of the body. It is designed to treat a range of spinal pathologies. Using patented nerve monitoring technology, the surgeon gains lateral (side) access to the spinal column, avoiding any major nerves in the area between the incision and the column. The XLIF procedure does not require an anterior (front) or posterior (back) exposure and, therefore, does not present the same vascular and/or neural injury risks associated with traditional approaches.



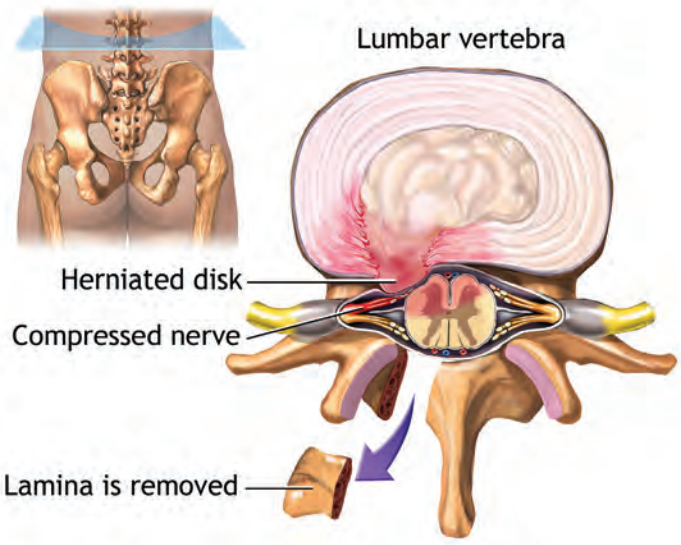
Transforaminal Lumbar Interbody Fusion (TLIF)

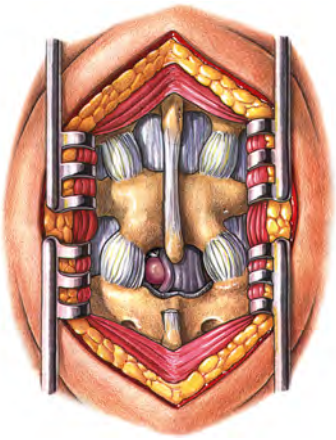
Transforaminal lumbar interbody fusion is a spinal procedure used to stabilize vertebrae and discs. TLIF involves the removal of disc material and placement of a cage into the space between the vertebrae where the disc was removed. Screws and rods are then inserted into the spine allowing for fusion of adjoining vertebrae. This type of procedure has many advantages, including an increased chance of success with the fusion, as well as an improved recovery period. TLIF can be used to treat a range of back conditions including recurrent herniation and degenerative disc disease.



Laminectomy

Laminectomy is surgery that removes the lamina, the part of vertebrae that covers your spinal canal. Laminectomy may also be used to remove bone spurs in your spine. The procedure can take pressure off your spinal nerves or spinal cord by enlarging your spinal canal.



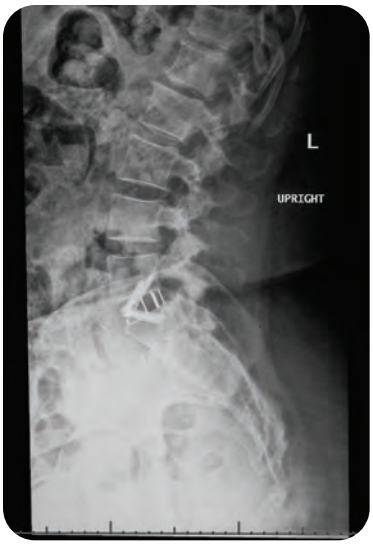


Lumbar Discectomy

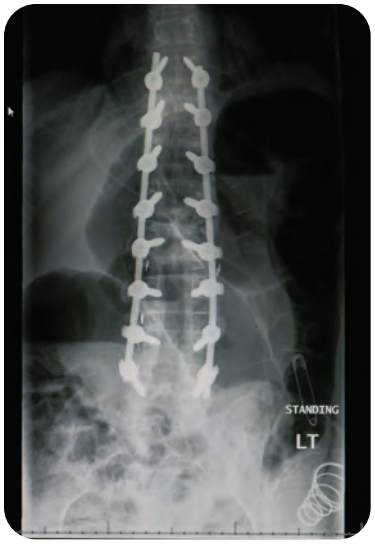
Lumbar discectomy is the most common surgical treatment for a ruptured or herniated disc in the lumbar spine. When the outer wall of a disc is weakened it may tear allowing the soft inner part of the disc to push its way out. This is called disc herniation, disc prolapse or a slipped or bulging disc. Once the inner disc material extends past the normal margin of the outer disc wall, it can press against sensitive spinal nerve tissue. The disc material can compress or damage the nerve tissue causing weakness, tingling or pain in the back and in one or both legs. Open discectomy surgically removes part of the damaged disc, relieves the pressure on the nerve tissue and alleviates pain. The surgery creates a small incision in the skin over the spine so that ligament and bone material can be removed to access the disc and remove some of the disc material.

Anterior Lumbar Interbody Fusion (ALIF)

Anterior lumbar interbody fusion (ALIF) is a procedure used to treat disc degeneration, which may result in spinal instability or deformities in the curve of the spine. In this procedure, the surgeon works on the spine from the front (anterior) and removes a spinal disc in the lower (lumbar) spine. The surgeon inserts a cage and bone graft material into the space between the two vertebrae where the disc was removed (the interbody space). The goal of the procedure is to stimulate the vertebrae to grow together (fuse) into solid bone, a process known as fusion. Fusion creates a rigid and immovable column of bone in the problem section of the spine. This type of procedure attempts to relieve back pain and other symptoms caused by disc degeneration.



Scoliosis



Scoliosis surgery is done through a long incision on the back of the spine. After making the incision, the muscles are moved off the spine to allow the surgeon access to the bony vertebrae. Then:

- The spine is instrumented (screws are inserted) and rods are used to reduce the curvature.
- Bone is added (either from the patient's hip or from a cadaver), creating an environment for the bones to fuse.
- The bones continue to fuse after surgery is completed. The fusion process usually takes about 3 to 6 months, and can continue for up to 12 months.

For patients with a severe spinal deformity and/or patients with a rigid curvature, an additional procedure may be required before surgery. A surgeon may recommend an anterior release of the disc space (removal of the disc from the front), which involves approaching the front of the spine either through an open incision or with a scope (thoracoscopic technique) and releasing the disc space. If this procedure is necessary, you will be informed of your scheduled surgery time. If a second surgery is indicated, it usually will be scheduled to allow two days between the procedures.

Travel tips.

Important phone numbers

MedStar Georgetown University Hospital 202-444-2000

Orthopaedics 202-444-8766

Surgery Center 202-444-6580

Pre-Anesthesia Testing 202-444-2746

Inpatient Orthopaedic Unit. 202-444-2241

Physical and Occupational Therapy (Inpatient and Outpatient) 202-444-3690

Patient Advocacy. 202-444-3040

Billing 410-933-4966

Chapel and Pastoral Care. 202-444-3030

International Services 202-444-1588

Interpreter Services 202-444-8377

Pharmacy. 202-444-3772

Parking

For all appointments, use Entrance 2.

For the Surgery Center, use Entrance 1.

- Parking is $3 per hour, maximum of $7 per day. There is no additional fee for valet parking.
- Your parking ticket must be validated at the Hospital Concierge Desk prior to your departure.

Food and dining

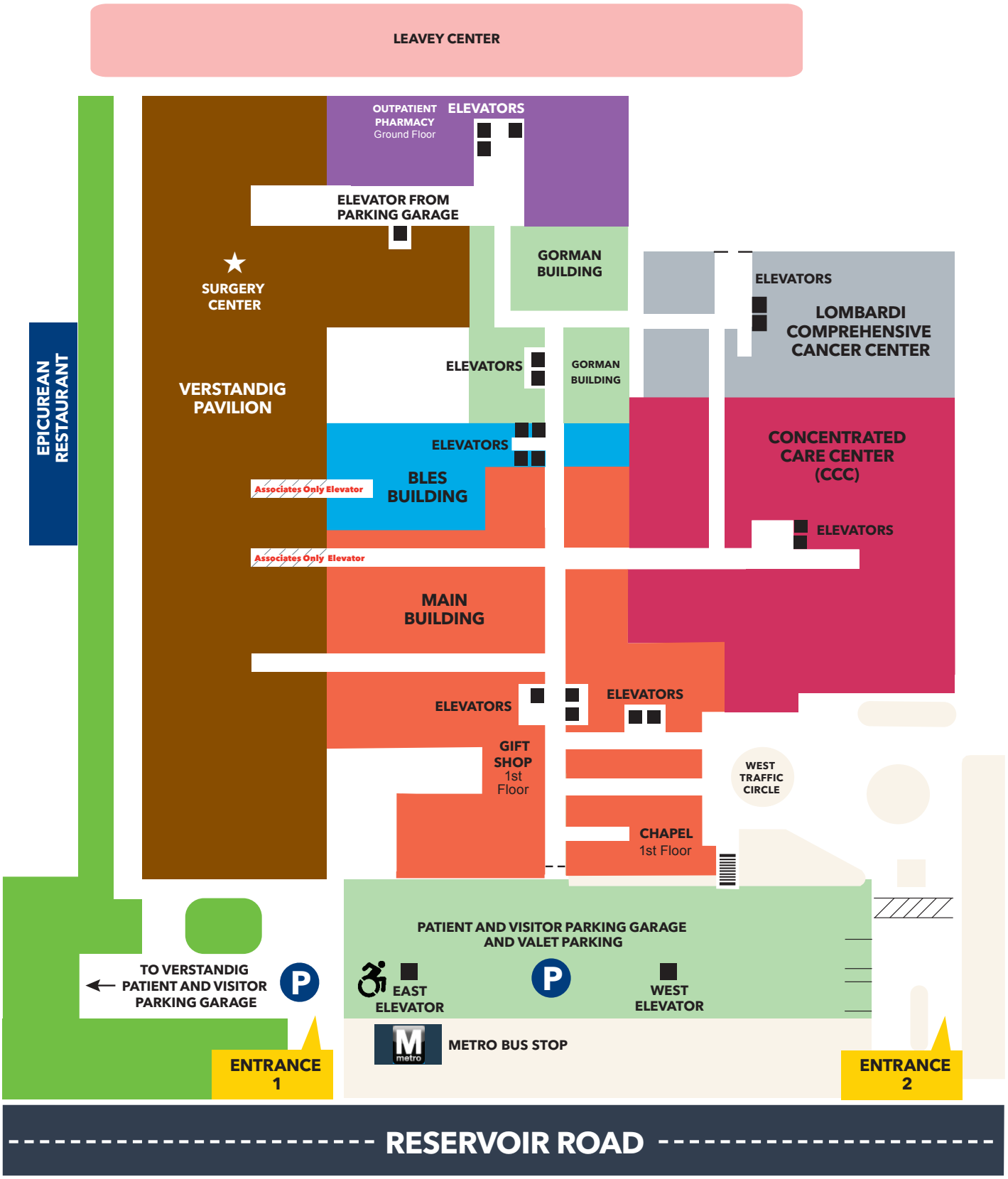
Scrubs & Grub Café	CCC Building, 2nd Floor
Chick-fil-A	Leavey Center
Epicurean Restaurant	Georgetown University (across the walkway from the Emergency Department entrance).
Grab & Go	Main Building, Ground Floor
Starbucks	Leavey Center
Starbucks Kiosk	Main Building, 1st Floor
Vending Room	Gorman Building, Ground Floor

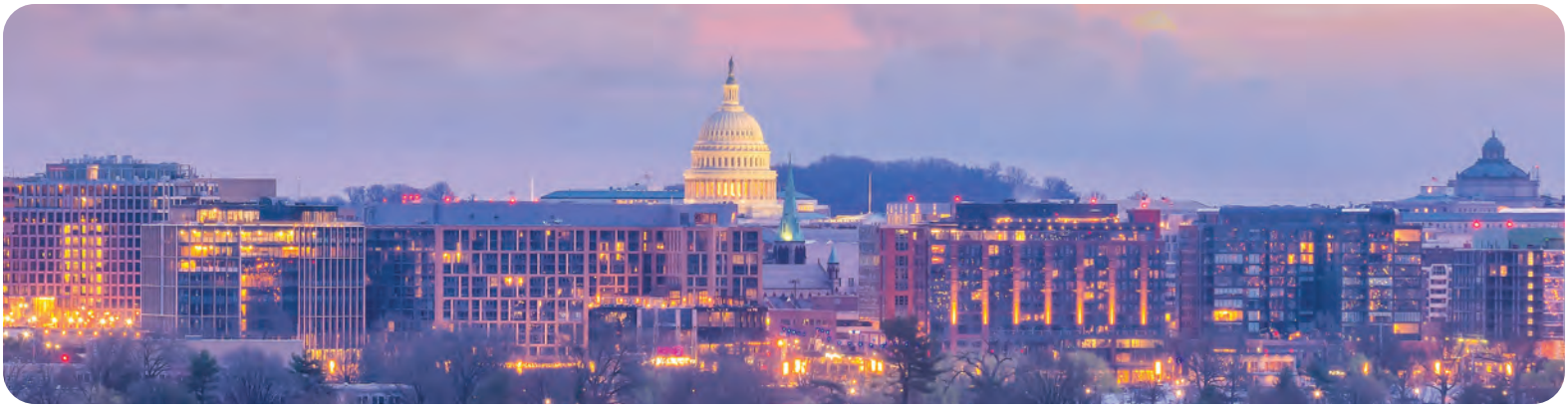
Accommodations

Georgetown Inn
1310 Wisconsin Ave., NW
Washington, DC 20007
202-333-8900

Kimpton Glover Park Hotel
2505 Wisconsin Ave., NW
Washington, DC 20007
202-337-9700 or **800-944-5377**

MedStar Georgetown University Hospital map.





You're never far from MedStar Health orthopaedic care.

We're everywhere you are. Our convenient locations throughout the Washington, D.C., region are easy to access. Working with more than 50 orthopaedic surgery specialists, many with fellowship training, is a team of specially trained nurses, technicians, rehabilitation experts and other caregivers who provides the specialized care your patients need when they need it.

For appointments, call **855-788-6464.** Visit **MedStarOrthopaedicInstitute.org.** Video visits from the comfort of home are also available.

A. MedStar Georgetown University Hospital
3800 Reservoir Rd., NW
Washington, DC 20007

B. MedStar Washington Hospital Center
110 Irving St., NW
Washington, DC 20010

C. MedStar Montgomery Medical Center
18109 Prince Philip Dr., Ste. 325
Olney, MD 20832

D. MedStar Southern Maryland Hospital Center
7503 Surratts Rd.
Clinton, MD 20735

E. MedStar St. Mary's Hospital
25500 Point Lookout Rd.
Leonardtown, MD 20650

F. MedStar Orthopaedic Institute–Alexandria
6355 Walker Lane, Ste. 501
Alexandria, VA 22310

G. MedStar Orthopaedic Institute–Bethesda
6410 Rockledge Dr.
Bethesda, MD 20817

H. MedStar Orthopaedic Institute–Brandywine
13950 Brandywine Rd., Ste. 225
Brandywine, MD 20613

I. MedStar Orthopaedic Institute–Chevy Chase
5454 Wisconsin Ave., 11th Floor
Chevy Chase, MD 20815

J. MedStar Orthopaedic Institute–Gaithersburg
882 Muddy Branch Rd.
Gaithersburg, MD 20878.

K. MedStar Health–Lafayette Centre
1120 20th St., NW
Washington, DC 20016

L. MedStar Orthopaedic Institute–Lake Ridge
12825 Minnieville Rd., Ste. 203
Woodbridge, VA 22192

M. MedStar Orthopaedic Institute–Leonardtown
23503 Hollywood Rd., Ste. 101
Leonardtown, MD 20650

N. MedStar Orthopaedic Institute–Lorton
9455 Lorton Market St.
Ste. 200
Lorton, VA 22079

O. MedStar Orthopaedic Institute–McLean
1420 Beverly Rd.
McLean, VA 22101

P. MedStar Orthopaedic Institute–Mitchellville
12158 Central Ave.
Mitchellville, MD 20721

Q. MedStar Health–Navy Yard
925 Half St., SE
Washington, DC 20003

R. MedStar Georgetown Pediatrics at Tenleytown
4200 Wisconsin Ave., NW
4th Floor
Washington, DC 20016

S. MedStar Orthopaedic Institute–Wheaton
11915 Georgia Ave.
Wheaton, MD 20902

T. MedStar Orthopaedic Institute–White Plains
4240 Altamont, Ste. 103
White Plains, MD 20695


MedStar Montgomery Medical Center
C
MedStar Washington Hospital Center
B
MedStar Georgetown University Hospital
A
MedStar Southern Maryland Hospital Center
D
MedStar St. Mary's Hospital
E
WASHINGTON, D.C.
Clarksburg
Germantown
Gaithersburg
Olney
Rockville
Bethesda
Silver Spring
Columbia
Elkridge
Arbutus
Dundalk
Brooklyn Park
Glen Burnie
Laurel
Fort Meade
Odenton
Severna Park
Arnold
Crofton
Greenbelt
Bowie
Annapolis
Mitchellville
McLean
Arlington
Fairfax
Alexandria
Upper Marlboro
Deale
Clinton
Fort Washington
Brandywine
Waldorf
White Plains
La Plata
Hughesville
Prince Frederick
Huntington
Chesapeake Beach
Charlotte Hall
Hollywood
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Notes.

MedStarGeorgetown.org

MedStar Health

MEDSTAR GEORGETOWN
UNIVERSITY HOSPITAL