



# Spine Surgery Patient Guide

Orthopaedics & Physical Performance



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## Welcome

Spine pain and dysfunction can severely impact your quality of life. At UR Medicine, our primary objective is to alleviate your pain by delivering world-class treatment in a highly personalized manner. Using our wide range of clinical and surgical services, as well as a team-based approach to care, we help you overcome your pain and improve function.

The UR Medicine Spine Program is the only spine program in the region to offer both diagnosis and therapy for spinal conditions in one convenient location. Services available at our Spine Center include physician visits, CT and MRI scans, injections, diagnostic testing and rehabilitation.

## Spine Center Team

The team members caring for you may include:

- Spine Surgeon
- Nurse Practitioner or Physician Assistant
- Orthopaedic Resident/Spine Fellow
- Nurses
- Physical Therapists
- Occupational Therapists
- Social Workers

## Understanding Spine Surgery

### Anterior Cervical Discectomy and Fusion (ACDF)

ACDF is a commonly performed procedure used to treat cervical radiculopathy. It involves removing the problematic disc or bone spurs and then stabilizing the spine. During the procedure, we will work from the front side of your body (anterior) and make an incision, usually one to two inches, along your neck crease. “Traction” could be used during surgery and may require us to create small holes along the side of your head.

During the surgery, we will remove the problematic disc to make room for your nerves. After the disc space has been cleared out, we use a fusion to stabilize the spine. This is similar to a “welding process” where bone material, called a bone graft, is used to help promote the fusion. Once the bone graft is placed, we’ll use titanium plates and screws to increase the rate of fusion and further stabilize your spine.

For additional information, please visit:

[www.csr.org/patients/viewmedica-animations/](http://www.csr.org/patients/viewmedica-animations/)

### Cervical Foraminotomy and Laminectomy

The primary goal of this surgery is to relieve symptoms by relieving pressure off the compressed nerves in your neck. The surgeon will make an incision along the midline of the back of the neck. Using specialized tools, the surgeon will free up the compressed nerve(s) by removing bone, bone spurs and tissue. This procedure does not require spinal fusion to stabilize the spine.

Additional information may be found at:

[www.csr.org/patients/viewmedica-animations/](http://www.csr.org/patients/viewmedica-animations/)

### Lumbar Laminectomy and Decompression

Lumbar laminectomy and laminotomy are surgeries performed to relieve pressure on the spinal cord and/or spinal nerve roots by removing all or part of the lamina. The lamina is the roof of the spinal canal that forms a protective arch over the spinal cord. A laminotomy is the partial removal of the lamina. A laminectomy is the complete removal of the lamina. The spinal cord and nerves are protected by a bridge of bone on each side, along with overlying muscle and fascia, so the spinal cord is not exposed.

## Lumbar Microdiscectomy

Lumbar microdiscectomy or microdecompression uses a special microscope or magnifying instrument to view the disc and nerves. The magnified view makes it possible for the surgeon to remove herniated disc material through a smaller incision, causing less damage to surrounding tissue.

## Posterior Spinal Fusion

Spinal fusion (arthrodesis) joins, or fuses, two or more vertebrae to a bone graft using an incision on the back side of your body (posterior). The bone graft creates a bridge between adjacent vertebrae and stimulates the growth of new bone. In some cases, metal implants are used to secure the vertebrae, add strength, stabilize the spine and ensure correct positioning until new bone grows. This is called *instrumented fusion*.

In other cases, the surgeon will not need to use implants to help join the vertebrae together (*non-instrumented fusion*). Instead, the surgeon collects small pieces of bone from other parts of your body or from a bone bank (like a blood bank). The surgeon grafts these pieces between your vertebrae, to fuse the vertebrae together. The three most common fusion techniques are posterior lumbar interbody fusion (PLIF), transforaminal lumbar interbody fusion (TLIF) and anterior lumbar interbody fusion (ALIF).

The type of fusion (instrumented or non-instrumented) and fusion technique (PLIF, TLIF, ALIF) performed will depend on your specific case.

## Preparing for Surgery

- Try to stop smoking. The use of nicotine products, including both cigarettes and cigars, has been linked with an increased risk of complications following surgery.
- Approximately 30 days before your surgery, you will meet with your primary care provider (PCP) or

provider at the Center for Perioperative Medicine for a pre-surgical check-up. Surgical consent is usually completed during this visit. Depending on the type of surgery you are having, and your medical history, you may also need to see other specialists such as a cardiologist, endocrinologist, etc.

- Bring family members or friends that will be helping you to your pre-surgical appointments so they understand what kind of support you will need.
- Five to 10 days before your surgery, you may need to stop taking some of your regular medications, like blood thinners which can increase your risk of unnecessary bleeding during surgery. Your surgeon's office will tell you which medications and supplements you need to avoid.
- DO NOT take any anti-inflammatory medication Five to 10 days prior to surgery. Fish oil supplements should be discontinued one week (Seven days) before surgery. Your surgeon will discuss this with you at your pre-operative visit.
- Lab work (usually non-fasting) will be ordered by your surgeon.
- We will order any brace(s) that you may need after surgery.
- Let your surgical team know at least 10 days in advance if you will need forms completed or letters written for your work.
- Perform pre-operative skin preparation the night before your surgery. You will be asked to purchase 4% Hibiclens® and use it during your shower. You should wipe down with this solution and rinse. This soap does not lather. Avoid using it on your face and genitals as it could cause irritation. This skin preparation has been shown to decrease the risk of post-operative infection. Please use as instructed.
- Medications to be taken the morning of your surgery will be outlined at your pre-operative visit.

## 24 Hours Before Surgery

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The day before your surgery, PLEASE CALL (585) 275-8256 between 2:30 p.m. and 7:00 p.m. to find out the time of your procedure and what time you need to arrive at our surgical center. If your procedure is being performed at Highland Hospital or at Golisano Children's Hospital, you will be given specific instructions at the time of your pre-op visit.

### Eating and Drinking Guidelines

#### Adults/Adolescents (Ages 12+):

- No solid food after midnight the night before surgery, including candy, gum, mints or chewing tobacco.
- Clear liquids are okay up until four hours before surgery. This includes water, apple juice, clear sports drinks like Gatorade, and clear carbonated beverages.

#### Children (Ages 11 & under):

- No solid food after midnight the night before surgery including candy, gum or mints.
- ONLY clear liquids until three hours before arrival. Clear liquids include Pedialyte, water or apple juice (without pulp).

## The Day of Surgery

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When you arrive at the Strong Memorial Hospital Surgical Center, Highland Hospital or Golisano Children's Hospital, you will be taken to the pre-operative area where your surgeon(s) and anesthesiology team will meet with you to discuss the surgical plan. Nurses will start an IV and may give you medication to help you relax.

You will be wheeled on your bed to the operating room, where the anesthesiologist will administer general anesthesia. You will constantly be monitored to evaluate your breathing and heart rate. Depending on your surgery, monitoring of your nerves and/or spinal cord may occur. This will occur during surgery by a technician in the OR and an off-site neurologist. Your length of stay is dependent on your procedure and your surgeon's treatment plan. The surgeon will speak with your family after surgery to discuss your status.

### Do's

- Bring your driver's license or a photo ID and medical insurance cards.
- Wear loose clothing that you will be comfortable in after your surgery.
- If you were ordered a brace, bring it with you the day of surgery.

### Don'ts

- Do not bring make-up, piercings, jewelry, money and/or credit cards with you.
- No nail polish or artificial nails.

## Hospital Stay

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Depending on the type of surgery you have, you may be admitted to the Orthopaedic Unit (534 at Strong Memorial Hospital), the Spine Unit (7-East at Highland Hospital), or one of the following at F.F. Thompson Hospital: Orthopedic Unit 3 East, the Observation Unit, another medical surgical unit. If your surgery is considered a 23-hour stay, you will most likely be admitted to the Same-Day Unit at Strong Memorial Hospital. If there is a chance that you will have to go to the Intensive Care Unit, your surgeon will discuss this with you beforehand.

- At Strong Memorial Hospital, there is a spine surgery physician assistant/nurse practitioner who will be able to address your medical needs if your surgeon is in the operating room or in clinic.
- You will have several members of the nursing team taking care of you. They will check your vital signs, help you to change positions in bed, measure your surgical drain output (if a drain is placed during the surgery), give you medications and address your questions/concerns. If you have a bladder catheter placed at the time of surgery, your nurse will usually remove it the day after surgery.
- Managing your pain following surgery is a priority. The night of surgery you may have a pain pump (PCA, patient-controlled analgesia) that you can use to control the pain. The day after surgery, you are usually transitioned to pain medication as needed and IV pain medications if the pain is severe.

- The physical therapist (PT) and occupational therapist (OT) will work with you the day after your surgery and most days you are in the hospital. The PT/OT recommendations will determine whether you go home, or if you may need to go to a rehab facility until you are ready to go home.
- Your normal breathing pattern can become shallower following surgery from the anesthesia and/or pain. If this occurs, it is important to try to resume your normal breathing pattern by taking deep breaths, which may help you cough up secretions. Your nurse or a respiratory therapist will teach you how to use an incentive spirometer, to perform a deep-breathing exercise.
- A social worker will meet with you to address any needs you may have once you go home. If the recommendation is to go to a rehab facility, then the social worker will help you select one.

## Caring for Yourself At Home

Once you are home, you will have some limitations and need to take precautions to avoid injury or infection. Here are some suggestions to help make your transition home as simple and safe as possible.

### Pain Control

After your surgery, a local anesthetic will be injected into the surgical area to control post-operative pain. This will not take away your pain but will help manage it. After you are discharged, you will be prescribed narcotic pain medication to take home with you. Use this medication as instructed and only when needed. Many pain medications we may prescribe contain Tylenol. You should not take additional Tylenol without first discussing with your surgeon.

In some cases, anti-inflammatory medication may be recommended for pain control. Generally, if you have a spinal fusion, do not use anti-inflammatory medication for six weeks – please discuss with your surgeon first.

Pain medication may cause constipation, so, drink plenty of fluids, eat a high fiber diet and, if needed, use stool-softening medications.

### Incision Care

Your incision care will vary based on your surgeon's recommendations and the procedure performed. In most cases, dissolvable sutures will be used for your incision. If staples have been used, you will need to be seen within two weeks from surgery at the office to have the staples removed.

The incision is covered with steri-strips and gauze dressing that protects the wound. Do not remove these strips, they will fall off on their own. The dressing is usually a water-resistant dressing. If you do not have a water-resistant dressing, your dressings will be changed before you leave the hospital (they can stay on for 48 hours). Either a new bandage or Band-Aids® will be applied to cover your stitches.

Do not apply any lotion, sunscreen or antibiotic ointment to your incision for six weeks.

### Sleeping

You may sleep in any position that is comfortable to you. Some patients find sleeping in a recliner chair is most comfortable.

### Bathing

Bathing will depend on the type of surgery and your surgeon's preference. This will be discussed at your time of discharge. Do not swim in any lake, pond, pool, canal or spray park while you are healing.

### School/Work

You will likely miss two to four weeks of school or work. Returning back to work greatly varies on the demands of your job and your return will be determined by your surgeon.

### Walking

You will start walking shortly after your surgery. You should begin small trips and gradually increase your time and distance. Begin with five to 10 minutes and slowly increase to 20 or 30 minutes three to four times daily as tolerated.

When you begin walking, start in a safe environment on a flat surface. You may climb stairs after surgery, but start slowly and use the handrail. It may be advisable the first day or two to have someone do the stairs with you to ensure stability.

## **Movement Precautions**

Avoid repetitive bending, lifting, reaching or twisting after surgery. Also avoid pushing or pulling heavy objects over 10 pounds and strenuous activity. When attempting to lift an object off the floor, bend at the knees and NOT at the waist. You are discouraged from sitting for prolonged periods of time (e.g., armchair, recliner).

### **Sitting**

In the first 10 to 14 days after surgery, you may find it is uncomfortable to sit for more than 45 minutes at a time. Avoid low or soft cushioned chairs for sitting, as they offer very little support.

### **Therapy**

Do not perform abdominal and back exercises immediately after surgery. Your surgeon will decide when you are ready to start an exercise program or physical therapy. A formal physical therapy referral will depend on your surgeon's treatment plan and your preference. If you are not in formal physical therapy, you should be walking multiple times per day, gradually increasing time and distance.

### **No Smoking**

Smoking severely slows down the healing process for all patients after surgery. Nicotine can adversely affect the rate of fusion and recurrent disc herniation. Do not smoke after your surgery.

### **Driving**

It is generally recommended that you do not drive while on narcotic pain medication. Your ability to drive will be determined at your first post-operative visit. You can be a passenger as your comfort permits.

### **Flying**

Depending on your type of surgery, you may be able to fly after two weeks. We recommend waiting until your first follow-up visit (usually two weeks) before considering flying. If you had instrumentation placed during your surgery, it is very unlikely that it will set off metal detectors and you do not need a card stating you had spine implants placed.

## **Small Children**

If you have small children in your household, we recommend not lifting them while you are recovering. They can sit on your lap if needed. Having a discussion with small children before your surgery about how to interact with you after your surgery may be useful. Arrangements for childcare after surgery would also be beneficial.

### **Pets**

If you have pets, we do not recommend walking them immediately after surgery due to risks of pulling or falling. Please make arrangements for pet care depending on how active they are.

## **Follow-Up Appointments**

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Two weeks after your surgery, you will have your first follow-up visit. This visit will typically be with a physician assistant or nurse practitioner.

Six to eight weeks after your surgery, you will have a follow-up appointment with your surgeon. At this time, your surgeon will discuss your recovery and outline a functional return to your previous level of activities.

If you have any issues after discharge, you are encouraged to follow up with your spine team.

You will be reevaluated again in six to 12 months. If you continue to have pain, are unable to be physically active or cannot participate in regular exercise, a referral can be made to work with our Spine Rehabilitation Team.

## Precautions Following Spine Surgery

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We recommend certain precautions beginning immediately after your surgery and for the duration of your recovery, typically about six weeks. **The following precautions will help you maintain good posture and use proper body mechanics to help protect your back and neck:**

### Do's

- Listen to your body and be mindful of your limits.
- Increase activity level gradually and rest as needed.
- If you have a brace, wear it as instructed by your medical team.
- Keep your back straight and keep your nose and toes pointed in the same direction.
- Lift only light weight (<10 pounds) and when you do lift, use your legs.
- When you need to rest, sit in a firm, supportive chair with arms.
- Carry items close to your abdomen.
- Change positions and move often.
- Make sure to walk as much as you are able to tolerate (at least 3–5 times per day).

### Don'ts

- Do not smoke while you are recovering.
- Avoid lifting items that weigh more than 10 pounds and do not lift with your back.
- Do not repetitively bend or twist with your back.
- Try not to sit for more than 45 minutes at a time.
- Do not swim in a lake, pond, pool, canal or spray park.

## Clot Prevention

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Your surgeon will use strategies to reduce the risk of blood clots, called deep vein thrombosis (DVT), in the leg veins following surgery. Tight-fitting compression socks and a mechanical device known as a calf pump may be used to squeeze the leg muscles and improve circulation while you are in the hospital.

### Deep Vein Thrombosis (DVT)

DVT is a disorder in which a blood clot forms in the deeper blood vessels, particularly in the legs. Having spine surgery increases this risk as does being immobile or inactive. Symptoms of DVT include unusual warmth, swelling, redness and pain in the affected leg, typically below the knee. If you experience any shortness of breath, sudden onset of chest pain, cough or fainting symptoms, call 911 immediately as these symptoms require immediate medical attention. Do not attempt to drive yourself to the hospital.

### Leg Swelling

Sitting with your legs down for prolonged periods of time can worsen the swelling of feet and legs for the first month following surgery. You should try not to stay in the same position for more than 45 minutes. You should alternate periods of walking with elevating your legs. Lying down and resting for an hour during the day should reduce swelling and promote healing.

## When to Call Us

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You should call our office immediately if you experience any of the following:

- Signs of infection (fever, chills, pus/increased drainage from the incision, redness, abnormal swelling).
- Increasing numbness, weakness or tingling in your legs.
- Change in bowel or bladder control.
- Increased pain that isn't responsive to rest or prescribed medications.
- Serious slips and falls.

# Information for Spine Surgery Patients

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## Important Addresses and Phone Numbers

Dr. Paul Rubery and Deborah Horst, NP  
(585) 275-2787

Dr. Robert Molinari and William Gruhn, PA  
(585) 275-1733

Dr. Varun Puvanesarajah and Andrea Kulp, NP  
(585) 602-4400

Dr. Emmanuel Menga and Cindy Larson, PA  
(585) 276-4577

Timothy Jensen, PA  
(585) 276-5271  
Strong Memorial Hospital Inpatient Care

Strong Memorial Hospital (585) 275-2100

Golisano Children's Hospital (585) 275-7520

UR Medicine Imaging (585) 784-2985

University Medical Imaging (585) 341-9100

## Spine Surgery Locations

Strong Memorial Hospital  
601 Elmwood Avenue  
Rochester, NY 14642

Golisano Children's Hospital  
601 Elmwood Avenue  
Rochester, NY 14642

Highland Hospital  
1000 South Avenue  
Rochester, NY 14620

F.F. Thompson Hospital  
350 Parrish Street  
Canandaigua, NY 14424

## UR Medicine Physical Therapy and Rehabilitation Locations

Canandaigua Commons (Canandaigua)  
COMING SOON  
699 S. Main St.  
Suite 3  
Canandaigua, NY 14424

Clinton Crossings (Brighton)  
4901 Lac De Ville Boulevard  
Suite 110, Building D  
Rochester, NY 14618

Orthopaedics & Physical Performance Center  
10 Miracle Drive  
Rochester, NY 14623

Platinum Office Complex (Penfield)  
2064 Fairport Nine Mile Point Road  
Penfield, NY 14526

South Pointe Landing (Greece)  
10 South Pointe Landing  
Rochester, NY 14606

Spring Pines Office Park (Webster)  
1672 Empire Boulevard  
Suite 100  
Webster, NY 14580

Strong West (Brockport)  
156 West Avenue  
Brockport, NY 14420

UR Medicine – Thompson Health (Victor)  
7670 Omnitech Place  
Victor, NY 14564