

Spine Surgery Patient Guidebook

Connecticut 
Orthopaedic Institute
MidState Medical Center

Welcome to the Connecticut Orthopaedic Institute at MidState Medical Center

435 Lewis Avenue, Meriden CT 06451

On behalf of the Connecticut Orthopaedic Institute at MidState Medical Center, we welcome you and extend our thanks for choosing us to be your orthopaedic surgery provider. We recognize you have a choice when deciding where to receive care and appreciate you giving us the opportunity to exceed your expectations.

Our goals at the Connecticut Orthopaedic Institute are to ensure the highest standards of medicine and to provide a high quality experience for you. We are committed to keeping you informed, and helping you become an active participant in your healthcare. We will do everything possible to make your stay with us outstanding.

In this patient education guidebook you will find important instructions and information to prepare you for your upcoming surgery. The guidebook is intended to answer many of the questions you may have. It outlines the things you need to do before and after surgery. Planning tools, advice on medications, as well as diet and exercise recommendations are included. We encourage you to read the entire guidebook carefully.

Please keep in mind this is only a guidebook – your surgeon may specify certain aspects of your experience throughout this journey.



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Lodging

For the convenience of your family and caregivers, two nearby hotels offer discounted rates to COI patients and caregivers.

Inn at Middletown

The Inn at Middletown, located less than 10 miles from the Connecticut Orthopaedic Institute, offers comfortable and charming accommodations for overnight guests. To reserve a room at a discounted rate, visit innatmiddletown.com and enter the promotional code: ORTHO or call 860.854.6300.

70 Main Street
Middletown, CT 06457

Courtyard New Haven Wallingford

The Courtyard New Haven Wallingford, located less than seven miles from the Connecticut Orthopaedic Institute, offers guests convenient access to MidState Medical Center and desirable amenities. To reserve a room at a discounted rate, visit Marriott.com and enter online booking code “HFA” or call 1-888-236-2427 and ask for the “Connecticut Orthopaedic Institute rate.”

600 Northrop Road
Wallingford, CT 06492

Transportation

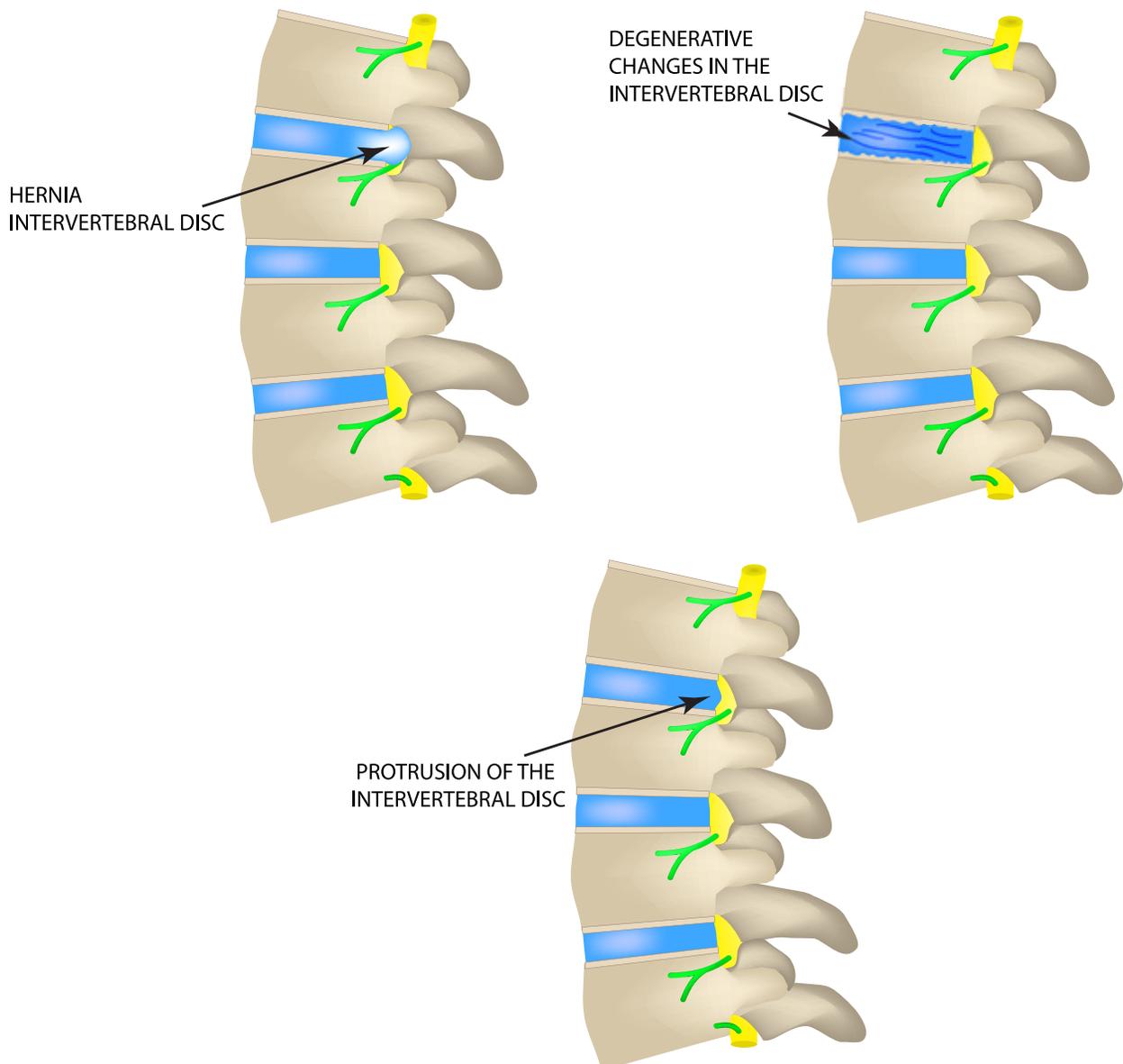
We understand that traveling to and from the hospital may be difficult for some patients. We have partnered with a local travel company to set up complimentary transportation for patients. If you have a transportation issue, please contact your surgeon’s office and they can help set up the necessary transportation needed to or from our facility.

PLEASE NOTE: This service is only available to patients who live within a 25 mile radius of MidState Medical Center.

Between the back of the vertebrae are small joints, called facet joints, which help your spine move. These facet joints have a cartilage surface, very much like a hip or a knee joint does. These joints allow for movement, specifically rotation, of the spine. Like many other joints in the body, however, they may develop arthritis and become a source for low back or neck pain.

Intervertebral disc herniation

Discs are soft, rubbery pads found between the hard bones (vertebrae) that make up the spinal column. The discs between the vertebrae allow the back to flex or bend and also act as shock absorbers.



Types of spine surgery

Lumbar Discectomy: The removal of herniated disc material that is pressing on a nerve or the spinal cord. This can be done with or without a laminectomy.

Laminectomy: Removal of the lamina, or the back part of the vertebra that covers the spinal canal. This surgery is done to enlarge the spinal canal and relieve pressure on the spinal cord and nerves caused by spinal stenosis.

Foraminotomy: Removal of bone and/or parts of a diseased or herniated disc to relieve pain through the neuroforaminal canal on the lateral sides of the vertebrae.

Spinal Fusion: Spinal fusion is a surgical procedure used to correct problems with the small bones of the spine (vertebrae). It is essentially a “welding” process. The basic idea is to fuse together the painful vertebrae so that they heal into a single, solid bone.

A spinal fusion eliminates motion between vertebrae. It also prevents the stretching of nerves and surrounding ligaments and muscles. It is an option when motion is the source of pain, such as movement that occurs in a part of the spine that is arthritic. The theory is if the painful vertebrae do not move, they should not hurt. Fusion will take away some spinal flexibility, but typically involve only small segments of the spine and do not limit motion very much.

Lumbar spinal fusions have been performed for decades. There are several different techniques that may be used to fuse the spine. There are also different “approaches” your surgeon can take for your procedure. Your surgeon may approach your spine from the front. This is an anterior approach and requires an incision in the lower abdomen. A posterior approach is done from your back. Alternatively, your surgeon may approach your spine from the side, called a lateral approach. Minimally invasive techniques have also been developed. These allow fusions to be performed with smaller incisions. The right procedure for you will depend on the nature and location of your disease.

All spinal fusions use some type of bone material, called a bone graft, to help promote the fusion. Generally, small pieces of bone are placed into the space between the vertebrae to be fused. A bone graft is primarily used to stimulate bone healing. It increases bone production and helps the vertebrae heal together into a solid bone. Sometimes larger, solid pieces are used to provide immediate structural support to the vertebrae. Bone graft can be obtained from the patient, typically from their hip, (autograft) or from either cadaver bone or through a bone bank (allograft). The fusion area is usually held together with metal plates, rods, screws, or cages to prevent movement until the bones heal. After 3-6 months the bone graft should join the vertebrae together to form one solid piece of bone.

Preparing your body for surgery

TOBACCO

STOP smoking at least six weeks before surgery. Smoking is a modifiable risk factor that can increase complications after surgery. Nicotine hinders the healing process. Smoking cessation education programs can help combat these complications and facilitate recovery. If you have not stopped smoking, your surgeon may postpone your surgery. For more information on smoking cessation, please contact the nurse navigators.

ALCOHOL

NO alcohol use one week prior to surgery. Also, please inform your healthcare team of your drinking history because serious harm can result from alcohol withdrawal when not properly managed.

DENTAL CARE

If you need dental work, get it done at least two weeks before surgery. After a spinal procedure, your surgeon may want you to take antibiotics before any future dental work. Depending on your dental history, your surgeon may require you to obtain pre-operative clearance from your dentist.

EXERCISE

Keeping your muscles toned will help you to recover after surgery. If you have access to a stationary bike please utilize that 3-4 times a week and attempt to increase the amount of walking you do daily.

NUTRITION

Proper nutrition is important before and after surgery. Proper nutrition will help ensure you have the strength for rehabilitation. You are encouraged to eat healthy, well balanced meals. Examples include:

- **Iron rich foods** (meat, fish, poultry, whole grain foods)
- **Vitamin C** to help absorb iron (multivitamins, juices and fruit)
- **High fiber foods** (raw fruits and vegetables, beans, whole grain foods)
- **Always drink** plenty of fluids

A blood tests performed prior to surgery is called Hemoglobin A1c. This measures of how well your blood sugar has been controlled over the past three months. An elevated Hemoglobin A1c may cause your surgeon to postpone surgery in order to prevent complications.

Preparing your home for after surgery

It is a good idea to prepare your home for your hospital discharge **BEFORE** you go to the hospital. The following is a list of suggested items that may help you during your recovery.

- Check with your insurance plan to verify which items are covered.
- You may find these items at medical supply companies; also many town senior centers have DME loaner programs.
- In the unlikely event that you are going to a facility with a rehabilitation program, the facility will order the equipment for you.

Below are items that may be useful at home. Your physical and occupational therapist will determine the equipment you will need to obtain prior to your transition home.

Durable Medical Equipment (DME)			
Personal Aids		Bathroom	
Rolling walker	Crutches/ Straight cane	3-in-1 commode	Shower chair
Elastic shoe laces	Sock aid	Raised toilet seat	Hand-held shower head
Long-handled reacher/ grabber	Long-handled shoehorn	Grab bar for shower/tub	Long-handled bath sponge



Pre-op showering instructions

Bathing instructions

Before surgery, you can play an important role in your own health. You can reduce the number of germs on your skin by carefully cleansing before surgery. Following the instructions provided will help you to ensure that your skin is clean before surgery to prevent infection.

You will need to shower with a special anti-bacterial soap called chlorhexidine gluconate (CHG). A common brand name for this soap is Hibiclens, but any brand of CHG is acceptable to use.

You need to shower daily with CHG soap the night before your surgery and in the morning before arriving at the hospital. Add at least two tablespoons of CHG soap to a clean washcloth to lather your skin taking care to avoid eyes, ears, and genital area.

You will receive a bottle of CHG soap at your pre-operative spine surgery class or when you visit the Pre-Admission Center. Below is a picture and instructions on how to apply the CHG soap.



Caution: CHG is not to be used by people allergic to chlorhexidine.

If you have an allergy to chlorhexidine please speak with your surgeon regarding alternative anti-bacterial soaps.

Turn the shower on and rinse off your entire body.

1. Using a CLEAN wash cloth, apply the solution to your body.
2. Wash completely from the neck down, avoiding the private areas.
3. Allow the solution to dry for 2-3 minutes.
4. Turn the shower back on and rinse off completely. Dry off with a clean towel.
5. **DO NOT** use perfume, deodorant, powders, or creams after using the skin cleanser on the day of surgery.
6. Avoid shaving your legs for at least three (3) days prior to surgery. Any needed hair removal will be done at the hospital with surgical clippers.



Valet parking services

MidState Medical Center offers all patients convenient access to the hospital with free valet service provided by LAZ Parking.

Valet parking business hours

- 5 am to 8:30 pm, Monday to Friday

Valet parking during business hours

- Patient vehicles that pull up to the curb outside the Connecticut Orthopaedic Institute or Medical Office Building will receive a ticket from a parking ambassador.
- All valet vehicles will be parked on the MidState Medical Center campus.
- When it is time to retrieve your car, a staff member will contact a parking attendant.

How to retrieve your vehicle after business hours

To pick up your vehicle after 8:30 pm, please follow this procedure:

- Use the Patient Info Line by picking up the black phone on the wall beside the desk at the galleria entrance (Pavilion A). The phone will directly connect to the switchboard. No dialing required.
- Inform the switchboard operator about which vehicle you're retrieving by using the information on the valet ticket.
- Switchboard will dispatch a Public Safety officer, who will retrieve the keys and escort you to your vehicle.
- Please wait for the Public Safety officer in the seating area adjacent to the Patient Info Line phone.



Anesthesia

You and your anesthesiologist will discuss all necessary factors prior to surgery.

❖ General Anesthesia

- Anesthesia that affects the whole body. You are completely unaware of your surroundings and will not respond to stimulation.
- This type of anesthesia is used for all spine surgeries.

❖ Intubation

- A flexible breathing tube is inserted into your mouth and then into your airway to keep your airway open and help you breathe during your surgery.
- This is commonly done with patients who receive general anesthesia because with general anesthesia you are unable to breathe on your own. This tube allows your anesthesiologist to monitor your breathing throughout the surgery.

❖ Intraoperative Neurophysiologic Monitoring (IONM)

- Very small needles are placed into the skin that a skilled technician uses to continuously monitor your nerves.
- Many spine surgeons use this procedure while they are in the operating room to assess your nervous system during spine surgery and reduce the risk of developing any new neurological deficits after the procedure.

Duration of surgery

The length of the surgery depends on the type of surgery performed, but typically spine surgeries can range from one hour to more than three hours. Once the surgery has been completed, your family member will be notified by either via the pager or text by an OR staff member. The surgeon then meets with the family member and updates them on your progress.

Welcome to the Connecticut Orthopaedic Institute Inpatient Unit

Inpatient unit:

Congratulations! You are now ready to start the journey to recovery. Once you have been transported to the inpatient unit, you will be greeted by staff members who will be providing direct care to you as you remain in the hospital.

- These staff members include your nurse, certified nursing assistant, physical therapist and occupational therapist. They will help you get settled in your room, perform assessments and notify your family member when it is safe to enter the room to be with you.
- You will be working with your physical therapist the day of or the day after your surgery.



Your hospital stay

Pain management: keeping you comfortable

You will experience pain following surgery. However, we will work with you to help manage your pain appropriately. If you are in pain or have discomfort, please tell us. Good pain control takes a partnership between you and your caregivers. Managing your pain will help you recover more quickly.

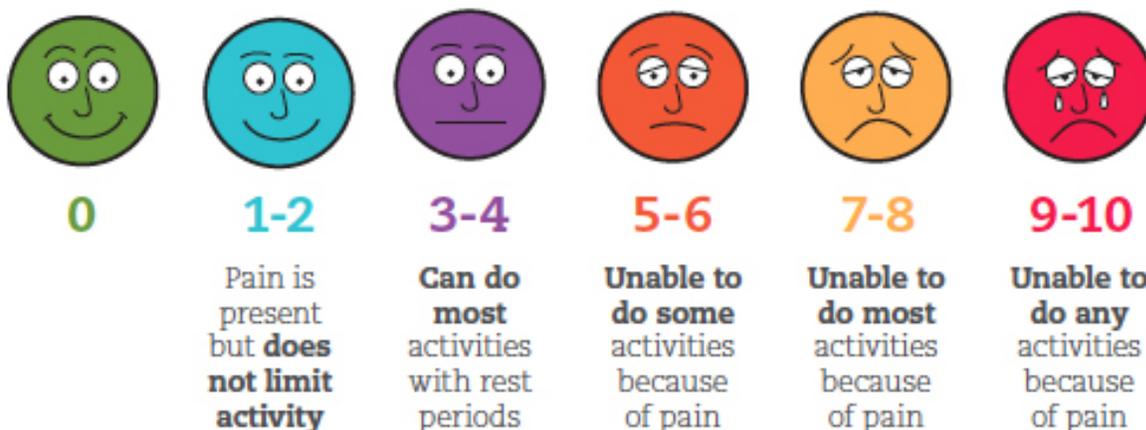
Our goals:

- Develop a pain relief plan
- Decrease pain to a level that is tolerable
- Determine if pain medication is needed and the appropriate amount
- Develop a plan to transition you off of narcotic pain medication

Pain assessment:

- To help us minimize your pain after surgery you will be asked to rate the intensity and type of your pain through the use of a pain scale of 0-10.
 - » (0 is no pain, 10 is excruciating pain)
- Knowing that after surgery 0 is not attainable, a score between 4-5 is an attainable and acceptable score for most patients.
- It is best if you obtain medication when your pain level starts to rise. Do NOT allow your pain to get severe. If you maintain pain control, it takes less medication and less time to manage the pain.

Pain scale (0-10)



Blood clot prevention

- Deep Venous Thrombosis (DVT) is a blood clot in a vein. The biggest danger is a clot that breaks off and travels to the lungs. This is called a Pulmonary Embolism (PE) and it can be life-threatening.
- Here are some of the signs of a blood clot:
 - » DVT (clot in an arm or leg) - pain, swelling, warmth, numbness/tingling
 - » PE (clot in the lungs) - difficulty breathing, chest pain, fast heart rate
- Ambulation is the key to blood clot prevention.
- Avoid sitting or lying in one position for long periods of time.
- Additional medical devices and medications will be provided to decrease the risk of a blood clot.

Sequential compression sleeves

These sleeves are placed on your calves after surgery. They inflate and deflate automatically and assist in the prevention of blood clots. They are worn while you are in bed and while sitting up in a chair.



Showering/bathing

- Keep your incision dry at all times.
- You may shower when your physician instructs you to do so. When you are able to shower, do **NOT** rub the incision.
- **NO** tub baths, hot tubs, spas, or pools until approved by your surgeon.
- You will receive instructions from your care team about wound-care management and showering.

Exercise

- Please follow the exercise plan that your doctor and physical therapist and/or occupational therapist have established for you.
- Your recovery process and continued health depends on good nutrition, rest and proper exercise.
- It is important to walk daily for short distances and frequently.
- There are no limitations to walking; however, you should avoid long distances, power walking, and treadmills.
- Keep pets away from you when you are walking as they may cause falls or twisting.

OTHER IMPORTANT INFORMATION

- Constipation can occur secondary to narcotic pain medications. Increase your intake of water and add additional fiber to your diet. You may also need to take stool softeners and/or laxatives as needed.
- Smoking interferes with bone healing, and nicotine products should be avoided, particularly after any fusion procedures.
- Avoid anti-inflammatory medications, such as ibuprofen, Advil, Aleve, Naprosyn, naproxen, and Motrin, for at least the first 4-12 weeks after your surgery UNLESS otherwise suggested by your surgeon.

Do not forget

- It is important that you fully understand your transitional care plan to ensure your continued healing, safety, and comfort. You will receive these instructions in writing before you leave the hospital.
- Before you leave the hospital ask questions about all of your medication, and be sure you know what medications are being prescribed, the proper dosage, how and when to take the medication, and possible side effects.
- Be informed about your health condition (*ask the care team if you do not understand any information shared with you*) and what you can do to help facilitate your recovery.
- **NO** driving while on narcotic pain medication and return to driving will be decided by your surgeon.

Your instructions may include your follow-up appointments with your surgeon and/or other specialists or your primary care physician. If you do not have a follow-up appointment with your surgeon, please make one as soon as you return home.

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