

Your Guide to a Better Recovery

Dear Patient

Thank you for choosing The Complete Spine Center for your spinal procedure. We have a dedicated team to make your surgery and recovery more comfortable, less stressful, and more successful.

The following pages are designed to give you a comprehensive over view of your planned spine procedure. Not all the information in the guide is not relevant to all patient but the information so please discuss specific questions to our team.

It is our hope that this guide will help answer many of your questions and concerns regarding your up coming procedure

Best Wishes

Mohammad Etminan
The Complete Spine Center

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Now that you have decided to have surgery:

1. You will receive a call from our scheduler to go over the dates for surgery, necessary medical clearance, and possible financial information
2. Our schedulers will contact your primary care doctor and inform them of the necessary pre-operative testing required.
1. Before surgery you may need to schedule an appointment with your primary care physician for a pre-operative physical examination. Our team will inform you whether you need a pre-operative medical clearance. The decision is based on your age, pre-existing medical conditions, and extent of the operation.

Your primary care physician will perform any necessary diagnostic tests and perform a physical exam.

They may refer you to other specialist to access other aspects of your medical condition (e.g. cardiologist, or pulmonologist)

2. Unless you are told otherwise, continue to take medication already prescribed to you by your own physician

Aspirin products, blood thinners (such as Plavix, Zorelto, warfarin...) will have to be stopped for the appropriate length of time so as to prevent excessive bleeding during your surgery or procedure (Typically one week unless otherwise stated) **Your will have to get the permission of your prescribing doctor before stopping your medication.**

3. You will be contacted by pre-surgical clinic of each facility for the necessary routine diagnostic testing to be sure your are ready for surgery.

These tests may include: taking blood samples for testing, urine specimens, and an electrocardiogram.

You should bring a list of current medications and a detailed account of prior medical, surgical and family health history

The nursing staff will provide instruction on preparation for surgery.

4. Prepare for your return home from the hospital. It helps you maximize your options and make decisions in a more relaxed way.
5. Wash the surgical area with antiseptic soap solution at the end of your last bath or shower before surgery. The solution should be rinsed and removed after application. Do not shave surgical area before or day of surgery.
6. Please do not bring the sleep apnea machine. Please bring in the mask, tubing and settings.
7. The use of nicotine products (i.e. cigarettes, cigars, gum or patches) has been shown to increase risk of complications following surgery. They can inhibit bone and wound healing by decreasing blood flow to the surgical site. They can also increase the risk of deep vein thrombosis (DVT). a.k.a. blood clots.

Your Diet and Preparing for Surgery

Fourteen Days Prior to Surgery

Stop all nutritional and herbal supplements (vitamins/minerals/herbals)
Exceptions: Please continue calcium, iron, and Vitamin D

The Day before surgery

Please do not eat any solid food after midnight. Please do not drink, or chew gum 8 hours before surgery.

Preparing your home

Prior to surgery, you will need to prepare. During the first few weeks at home you will be required to adapt what you learned in the hospital to your own setting.

Store items within easy reach. Take items you need out of low cabinets or shelves prior to surgery because you will not be able to reach them after surgery

Prepare meals ahead of time and store in the freezer.

Reduce clutter

Remove loose wires and cords

Rugs should be smooth and anchored to the floor

When you come to the hospital

Your insurance card

X-rays and MRI images (if instructed by staff)

Any assistive device you can use (e.g. cane, walker)

List of current medications

Non-slip, flat, closed toe, athletic or walking shoes.

Personal toiletries

Please remove contacts and wear eye glasses.

Please do not bring

Medications. Self-medication during your hospital stay is prohibited.

Valuables.

Jewelry

Please pack lightly for the hospital.

Day of Surgery

The staff will inform you of the location of your surgery.

You will check into pre-operative admitting at the appropriate facility

For out patient ambulatory procedure please be sure to have a ride for your return home. You will not be able to go home without an adult chaperon/driver.

Patient information intra-operative monitoring

During your spine surgery Intraoperative Monitoring (IOM) will be part of your surgical procedure. The services is an additional tool to help keep your surgeon informed about possible neurological complications during surgery. The purpose of the IOM is to reduce the risk of injury to the spinal cord and to the nerve roots during surgery by continuous monitoring the ability of your spinal cord and nerve roots to transmit signals.

By using his procedure, we continuously monitor the function of the spinal cord during the operation and are able to alert the surgeon if there are problems arising in the nervous system. IOM can give you surgeon information about how well the nervous system is functioning , including in those areas of your body where the operation is taking place.

IOM is performed by skilled technologist, trained specifically to manage this highly specialized procedure. The IOM signals obtained by the technologist is monitoring by a board certified neurologist who is in direct contact with the technologist and the surgeon.

About the costs

The fees for these services depend on the length of the operation and on the type of services provided. The fees are filed separate form, and in addition to, the hospital, your surgeon, and your anesthesiologist. These charges will be submitted directly to your insurance company. If you have any question or concerns about intraoperative monitoring please contact our IOM company at ++++++

Anesthesia

The anesthesiologist who will be administering your anesthetics is familiar with your chart, laboratory results, and other studies. He will have a detailed conversation with you to clarify any issues and address any concerns you or your anesthesiologist may have. You can take this time to discuss with your anesthesiologist any concerns regarding your anesthesia or previous anesthesia experiences.

The Operating Room

Before the operation, your will be given oral pain and neuromodulating medication by the pre-operative nurse. These medications will significantly decrease your perception of pain during and especially after surgery and help speed up your recovery.

A nurse or an anesthesiologist will be starting an IV in your arm in order to administer additional medication for administration of general anesthesia. Through this IV you will also receive antibiotics in order to prevent infections. You will then be rolled back to the operating room. In the operating room, the anesthesiologist will measure your blood pressure and heart rate. You will receive IV medications and also oxygen. The IV medication will sedate you. Once your are completely sedated, the anesthesiologist will insert a breathing tube, which is essential for your safety during surgery.

Typically, the breathing tube is removed at the end of the operations once the anesthetics have worn off.

Patient's normally are not aware of the length of the surgery and remember very little if anything of the operating room experience

After Surgery

In the post-anesthesia care unit you will be given oxygen, and your vital signs (breaths, heart rate and blood pressure) will be monitored. The team will also focus on managing your pain so you will be more comfortable when you begin rehabilitation.

When the anesthesiologist determines that you are sufficiently recovered. You will either be transferred to the inpatient ward or be discharged home.

Recovering in the hospital

Managing Pain

There will be some level of pain following all orthopedic surgeries. If you are discharged home, you will be given prescription for pain medication, muscle relaxers, and antibiotics. If you are staying in the hospital you will be started on a mix of long acting oral narcotic that will be given to you on a regular basis. This medication will maintain a baseline level of comfort. You will also be prescribed additionally narcotic medications as well as muscle relaxers that the nursing will give you ask for additional medication or report significant pain. You will also have muscle relaxers available to you. The combination of pre-operative (pre-emptive) and post-operative medications allows for excellent pain control.

You will be asked to rate how much pain you have on the pain scale

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Cold therapy

The application of cold has been shown to reduce swelling and pain associated with inflammation at the surgical site. Ice packs and cold pads should be applied for 20 minutes intervals every 3-4 hours on a daily basis for the first few weeks following surgery.

Your treatment plan

The plan above works for the vast majority of patients. We recognized however, that every patient is unique. Our nursing staff is available to address your needs if our typical pain management regimen is not sufficient. It is our goal to make your stay as comfortable and safe as possible.

Deep Breathing

It is extremely important to perform deep breathing exercises after surgery to rid your airway and lung passages for mucus. Normally, you take deep breaths almost every hour usually with-

out being aware of it, when your sigh or yawn. When you are in pain or are drowsy from anesthesia or pain medication, your breathing may be shallow. To ensure that you take deep breaths daily, the nursing staff will provide you with a device called an incentive spirometer, along with instructions on its use.

How to use an incentive spirometer

The device is designed to work optimally and give you feedback when you suck the air in slowly through pursed lips for a prolonged period of time.

Hold the device up right. Blow out a breath, then place your pursed lips along the mouth piece and slowly inhale air through the mouth piece as deeply as possible. As you inhale, try to keep the yellow cup in the Best to Better range. The white piston in the main chamber moves up slowly when you breathe in to measure how deep your breaths are. Try to move the white piston as high as you can. This is done by taking deep slow breath through pursed lips.

Repeat this maneuver 10x/hour

Urinary Catheter

You may have a urinary catheter after surgery. This catheter is removed the morning after surgery. The catheter is removed as soon as possible in order to decrease the potential risk of a urinary tract infection. The nursing staff will make sure you are able to urinate a normal amount a few hours after removal of the catheter. The removal of the catheter is a straightforward procedure that is typically not painful.

Occasionally a patient cannot urinate after surgery. This is most often associated with previous history of a urinary infection or possible prostatic hypertrophy. In these instances a catheter is inserted.

Bowel Movement

Constipation is a very common side effect of the pain medications provided. Minimizing narcotics is the best way to avoid constipation. No matter what, the nursing staff will be provided you with laxatives such as milk of magnesia, metamucil, or magnesium citrate in order to facilitate bowel movements.

Although it is not unusual to have difficulty with constipation, it is important to make sure that any deviation from the norm should be followed carefully and treated with the medications above if necessary.

Preventing blood clots

After surgery, you are at an increased risk for developing blood clots called deep venous thrombosis (DVT). The clots can potentially travel to the lungs and cause significant symptoms and may even be lethal. To prevent and reduce the risk of these events, you will be provided a mechanical compression device of the calf or feet to maintain the blood flow in the veins. You will be provided this pre-operatively and will be using this device in the hospital and after discharge home for at least 2 weeks.

Leg Swelling

It is not unusual to experience some swelling of the lower extremity with prolonged sitting after spine surgery. It is important to not remain in the same position for more than 45 minutes and to also alternate for sitting to standing position. Prolonged walking walking should be alternated with laying down and elevation of the lower extremity. Lying down for an hour in the later morning or after noon will help reduce swelling and give your body the rest needed for healing.

Rehabilitation and Mobility after Spine Surgery

You will likely be seen by the physical therapist and encouraged to walk on the day of surgery. It is critical to understand that motivation and participation in physical therapy is critical to the successful outcome of your surgery. It is imperative that fully participate and cooperate with the nursing and physical therapy team.

The goal of physical therapy

- help regain indépendance with mobility
- Establish an indépendant home walking program
- Educate on proper body mechanics and spine precautions
- Assist with discharge planning.

Beginning to Walk

The main focus of physical therapist is instruct you in the appropriate technique to getting out of bed, standing, and walking. Your will initially be provided a walker and will gradually decrease your dependance on the assistive devices as you feel more comfortable.

Waling the #1 exercise following any spinal surgery. The main thing you can do at home for therapy is to walk.

Precautions after spinal surgery

Do

1. Increase your activities as you start to heal. The acute phase of healing is typically 6 weeks. In the case of fusion operations patients continue to improve significantly for the first 3 months but continue to improve for up to 2 years after surgery.
2. Walking is the best activity that you can do for exercise. Increase your walking activity over the course of your recovery period. We ask most patients to walk up to several miles a day if tolerated. The walking can be divided up into multiple smaller walks over the course of the day.
3. Wear your brace if prescribed for your surgery until advised otherwise by your surgeon
4. Sit in a sturdy chairs with order in order to assure good posture.

Do not

1. Do not lift any heavy objects.
2. Do not force any extreme motion
3. Do not spend any prolonged length of time in any position during the day. Change positions on a regular basis alternating between sitting, standing, laying and walking every 30-45 minutes.

Transfers out of bed

In order to safely get out of bed

1. Lay on one side
2. Bend your knees and hips
3. Raise yourself up using the down arm and shoulder as you put your feet off the bed keeping your hips and knees bent.

Proper Positioning After Spinal Surgery

Place two pictures to be obtained

Sitting Position After Spinal Surgery

Do not sit more than 30-45 minutes at a time

Be sure that your feet are supported on the floor

Support your spine on the back of the chair or with a pillow

It is important to change positions throughout the day. Do not spend a great deal of time in any one position.

The more rapidly you normalize your daily routine (wearing normal clothes, shaving, putting on make up) the more quickly you will feel better and improve your mood. This will result in a quicker and more successful recovery.

Preparing to go home after surgery

The majority of patients are discharged home after spinal surgery once their discharge goals are met. These goals are individualized but may include being able to get out of bed, and ambulate with minimal assistance, able to void (urinate) without difficulty.

A small percentage of patient undergoing major spine surgery are not able to safely return home. If you happen to be in that category, the hospital case management team will work with you to come up with alternative discharge plans such as going to a skilled nursing facility or a rehabilitation facility. Your insurance company has specific criteria and coverages for these services. The case management team will review the alternatives available to you based on your medical condition, home and healthcare needs, care arrangements you have already made, geographic location, insurance coverage, and financial situation. You may elect to discuss your coverage options with the team during pre-operative period. ++++++get the number and info

The case management team will discuss your post-discharge needs in consultation with your healthcare team. Your involvement is essential in formulating a discharge plan that will suit your needs.

Medications for home use

You will typically be provided a prescription for pain medication, muscle relaxers, and antibiotics after your surgical procedure. The medication can be provided to you in a prescription format to be sent the pharmacy of your choice after the surgical procedure has been performed.

Your are finally home

Guidelines for recovering at home

Caring for the Surgical incision:

The incision should be covered with the original surgical dressing for 5 days after the surgery.

After 5 days, you may remove the adhesive dressing and the bandage over the incision. Do not remove the surgical closure material (e.g. steri-strip, butterfly band aid).

You may get the incision wet after removing of the dressing (5 days). Before that time, you may wash the rest of your body without directly putting water over the incision/dressing it self.

If the incision becomes bloody and soaked you may change the dressing with sterile gauze and paper tape that can be purchased from you local pharmacy. If the new dressing also become bloody please call us at the Complete Spine Center.

Please inform us at the Complete Spine Center if you notice persistent drainage, redness, or swelling of your incision.

Bracing at home

If you have prescribed a cervical collar it needs to be worn at all times except when showering or unless otherwise advised by the healthcare team

If you have been prescribed a lumbar brace it needs to be worn when out of bed and ambulating unless otherwise advised by the healthcare team

Medications at home

Your pain medication and muscle relaxer is intended to make you comfortable. You do not have to take the medication if you are not experiencing severe pain. Do not take more than prescribed. You will need to take less as your pain improves.

Take your antibiotics as prescribed until it is finished

Take your pain medication before the pain becomes severe. Use cold therapy and other measures to help reduce your discomfort.

If you have any side effects from the medication please contact the Complete Spine Center

If you are taking pain medications, avoid alcoholic beverages.

If you are taking pain medications do no operate heavy machinery

It is important to call us if your are running low on pain medication, before you are likely to run out for possible refill or modification.

No medication refills on weekends.

Continuing taking all your routine medications prescribed by your medical doctors at home except for your previous pain medications, medications that interact with the prescribed medication.

Blood thinners are typically restarted immediately or a few days your surgery. Please coordinate the exact timing of this restart before discharge.

Dealing with constipation and inability to urinate

Constipation is extremely common after spine surgery due to the use of narcotic before, during, and after surgery. It is critical that you keep your normal bowel habits. Medications such as milk of magnesia, Metamucil, and magnesium citrate as well as traditional remedies such as prunes and prune juice should be used during the post-operative period while you continue on pain medication.

It is important that you maintain your normal bowel habits after surgery with decreased use of pain medication and use of medications and remedies listed above.

Urinary retention can be seen at times. Patients with enlarged prostates are at especially high risk for this condition. It is typically associated with significant abdominal pain. It is a dangerous condition that needs to be addressed as soon as possible. After surgery, you need to urinate the same amount and frequency as you usually do. If you are urinating frequently (every 1 hour) and urinate small amounts you may have urinary retention. Please contact us or your primary care physician if you have any concerns about urinary retention.

Physical Activity at Home

Most spine surgery patients do not have formal physical therapy after discharge. If necessary we will set up appropriate out patient or home health visitations after your followup visits.

Walking is the most important exercise for your post operative recovery. Monitor your walking distance and gradually increase the distance and frequency as tolerated. It is important to walk with intent to walk and to walk for set periods of time for maximal benefit. Walking on even, flat surfaces outside the home when safe helps maximize the benefits of walking.

You can stop using your assistive device when you can walk with relatively pain free and without a limp, or when advised to so by your therapist or healthcare provider.

Activities of Daily Living

It is important to return to your daily (non physically demanding) routines once discharged home as soon as possible. Returning to daily grooming activities, eating habits, and reasonable socialization habits help facilitate your recovery with improving your physical and mental well being.

Toileting

A raise toilet seat may be necessary for ease of getting on and off the toilet. The hospital case management may be able to facilitate obtaining the seat.

Showering

You may shower 5 days after surgery assuming the incision is not draining and closed. You may wash the rest of your body before that time assuming you can keep the surgical area and bandage relatively dry.

Managing your symptoms

Take pain medications as necessary

Using cold therapy to either side of surgical site for the first two weeks in 20 minute intervals. After two weeks, ice 20 minute interval before and after walks when soreness or pain is present or after exercise. (Cold therapy consistent of placing ice in a ziplock bag and then wrapping the bag in a towel to avoid contact of the ice/ziplock directly to skin).

It is not usual to feel tired and low energy a period of time after large operations. Daily naps during the late morning and late afternoon are helpful to enable your body to heal.

Moving your ankles up and down helps circulate blood and fluid through out your legs.

Limit your sitting time to 45 minutes to an hour at any given time. Get up, walk around, and then return to sitting

Ice your neck or lower back

Make sure you have regular bowel movement by taking regular walks, decreasing your narcotic intake, and taking medications and remedies such as metamucil, milk of magnesia, fleets enema, magesium citrate, prune juice, or prunes.

Maintaining a healthy, high protein diet that is supplemented with vitamin D (2000-5000 Units/day), keep hydrated by drinking plenty of water.

Contact the Complete Spine Center if these modalities do not help.

Things to look out for

Mild to moderate pain at the surgical site is not uncommon during the initial period after surgery.

Occasional pain radiating down the arm or leg is not uncommon after surgery during the initial period after surgery.

Severe excruciating pain is not common in the surgical site, constant significant pain, numbness, or weakness in the extremity is not typically anticipated after surgery. If you have or develop these symptoms please contact the Complete Spine Center

The typical post-operative course is improvement on a daily basis. It is not unusual to have some occasional leg or arm pain, numbness, or tingling that resolves with a few hours starting a few days the surgery. This pain however should not be severe and should not be persistent. This pain will typically resolve 4-6 weeks after the surgery. If you have any concerns please contact the Complete Spine Center.

Bloody drainage for a few days after surgery is normal. If you have discharge that is consistent more than 4-5 days after the surgery please contact the Complete Spine Center.

If you are unable to urinate or urinate more frequently than is usual and smaller volumes that is typical or you have severe abdominal pain you may be in urinary retention. Please call the Complete Spine Center.

If you have not had a bowel movement for several days despite attempting the measure mentioned previously please call the Complete Spine Center.

If you have severe headaches that improves significantly with laying down please contact the Complete Spine Center immediately.

It is not unusual to have a fever for the first 2-3 days after surgery. This likely due to inflammation from not taking deep breaths, or from being constipated. Fever of 101 F or greater that is consistent may be an indication of a more serious condition such as a urinary tract infection, or possible pneumonia which has to be treated promptly.

Please contact the Complete Spine Center, your primary care physician or visit an emergency center if you have persistent fever, low blood pressure, high pulse (elevated heart rate), worsening pain, increasing discharge from your incision, increased neurological deficits (weakness, numbness, tingling, difficulty walking, poor balance, difficulty using your hands and arms).

The above items are not intended to be a comprehensive list. If you have any questions or concerns please contact the Complete Spine Center, your primary care physician or visit an emergency center.

Sexual Activity Following Spinal Surgery

Patients and partners may have concerns about sexual relations after spinal surgery.

When can I resume sexual activity after surgery?

The rate of recovery is different based on the type of surgery and your age and presurgical level of function. You should not resume intercourse by any method that utilizes your back until you get permission from your healthcare provider. Please do not hesitate to discuss your specific situation.

What sexual position is safe during intercourse?

Proper body alignment should be kept in mind during sexual intercourse. Avoid bending or twisting during sexual intercourse. Also avoid significant pelvic thrusts during sexual activity. If your typical sexual positions involves such positions and motions please reconsider your usual practice during your recovery period.

There is nothing specific about sexual intercourse that endangers your recovery as long as basic body mechanics are observed. Your eventual method should protect your back and neck while providing pleasure to you and your partner.

Using aids such as folded towel under the back, pillow under the knees and pillow under the head can help keep the spine in a neutral position.

Pillow under the stomach and pillow under the spread legs may provide support and a comfortable neutral position.

Pillows under the neck, towels under the waist, and pillows under the upper knee may provide a comfortable position.

In all circumstances and positions, your partner needs to support their own weight and control their movement with their arms and legs. Restraint should be exhibited to avoid excessive jarring.

Followup

You will be seen 10-14 days after surgery at the Complete Spine Center. At that point we will go over post-operative plan. If you have any sutures they will be removed. Further medical treatment will be planned.

Conclusion

We hope that the documents above can help you navigate through the before, during, and after your surgery. The guide is general and is not intended to cover all different patients, surgeries and scenarios. Please feel free to contact us with any questions or concerns.