

SPINE SURGERY

THE ROAD TO RECOVERY

A Detailed Guide to Your Surgery and Recovery Process



This Guide Will:

- **Prepare you for surgery**
- **Explain what to expect during and after surgery**
- **Guide you through the recovery process**

The most important thing to remember is the sooner you return to being active the sooner you will be on the road to recovery.

The Steamboat Spine Center is dedicated to returning you to an active lifestyle. Each member of the spine team has contributed to this book and is here to answer any question.

Thank you for choosing us!





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The Road to Recovery After Spine Surgery

The first step on the road to recovery is learning how to play an active role in your care.

Before proceeding with surgery, it is important to become an advocate for yourself. Make sure you understand the surgery and what to expect in the weeks and months following.

Be Pro-Active. This means you should seek out information and help from the health care providers around you. It is a good idea to take control, make decisions and find your best road to recovery. If you are not pro-active you run the risk of having others make decisions for you. These decisions may not be in the best interests of you and your family.

Success at being pro-active depends on knowing your rights as a patient. These rights are:

- **The right to considerate and respectful care**
- **The right to obtain complete and current information concerning your surgery**
- **The right to receive information necessary to give informed consent prior to your surgery**
- **The right to be informed of the medical consequences of surgery**
- **The right to every consideration of privacy concerning care**

And the most important right: **The right to ask questions!**

We know the idea of surgery can cause anxiety and leave you with many unanswered questions. Your questions are extremely important to us and we hope that we can make you feel more at ease in the days prior to and after your surgery.

Our intention in constructing this booklet is to allow you to become as involved in your surgery and recovery as your surgeon and the staff.

We approach surgery as a team with you being the most valuable player.

Each surgery is quite different than the next and it is important that you and your surgeon know what to expect of each other.

PREPARING FOR SURGERY:

This manual is intended as a general guide to spine surgery. Depending on the type of procedure you are having, you will also receive an educational manual to prepare you for that type of surgery.

No matter what surgical procedure you are preparing to undergo, there are general guidelines that will help you prepare for your upcoming surgery. Your cooperation is greatly appreciated in this joint effort.

Make sure you understand what to expect from the surgery

Many people will suffer from neck/back (spine) pain and arm/leg pain. Make sure you discuss the goals of surgery with your surgeon. Surgery is most predictable at improving arm and leg pain and less predictable at completely alleviating neck or back pain. A reasonable goal is to have improvement in neck and back pain such that it is tolerable, but it is unreasonable to expect that all neck and back pain will be alleviated from surgery, given these symptoms are due to arthritis.



Stop Smoking/ Chewing

If you are a current tobacco user, we request that you quit tobacco products at least 1 month prior to surgery. Nicotine, in any form, is a hindrance to bone fusion and healing. It also affects the ability of nerves to recover and your surgical incision to heal. This does include smoking as well as chewing tobacco, snuff, etc. Even vape products have been shown to effect bone healing. Because Nicotine is the source of the problem when it comes to healing and bone fusion, smoking cessation products such as Nicorette® gum or nicotine patches may be used but should also be minimized over time as part of the process to completely quit using nicotine products. Please discuss smoking cessation plans with your medical doctor. There are several medications available to help with quitting.

The negative effects of smoking are clear: One in every three people who starts smoking will die prematurely of a smoking-related illness, according to the American Lung Association. Smoking-related illnesses include chronic bronchitis, emphysema, heart attack, stroke, non-lung cancer and lung cancer. But the good news is that it's never too late to quit smoking. The benefits of smoking cessation begin within a few minutes of your last cigarette and continue for life, even for people with lung disease.

Obtain Medical Clearance

- Before your surgery, you will see your primary care doctor to have blood drawn, in addition to other possible workups such as an EKG, and/or a chest x-ray. You will be asked to schedule an appointment with your primary care physician 2-4 weeks prior to your surgery to make sure you are safe to undergo anesthesia. They can perform most of the required testing.
Your surgeon will provide the necessary information regarding your surgery to your physician to give guidance around clearance.
- If you have heart, lung or other diseases that significantly affect your health, you will be expected to receive additional clearance from your specialist prior to surgery.
- If you are suffering from extreme stress or anxiety or have signs of depression, make sure you address this with your primary health provider and spine care team before surgery.
- If you are seeing a **pain management specialist**, make sure to share the news of your surgery. Some will manage your pain medications afterward; others will have the surgeon take over your pain management for the first 4-6 weeks after your surgery. You should try and reduce your opioid consumption to a minimum and ideally stop prior to your surgery. If you require these medicines, take **no more than 30mg total** of hydrocodone or Percocet (oxycodone) a day. If you are on a higher dose of opioids it will make managing your pain after surgery very challenging. **If you are taking more than the above dosages of pain medicine prior to your surgery, please notify your surgeon.**
- If you have diabetes, your hemoglobin **A1C** should be no higher than **7.5** and daily blood sugars should not exceed **160**. Elevated blood sugars around the time of surgery increase your risk of infection and complications, and inhibit nerve healing. Please work with your primary health provider to improve these numbers prior to surgery. **If your lab values are more than the above prior to your surgery, please notify your surgeon.**
- An appointment can be scheduled for you to meet with a physical therapist prior to surgery. The therapist will go over post-operative instructions as well as restrictions. Please let us know if this is something you wish to do.

Instructions for Medications Prior to Surgery

- This is intended as a guide, and should be discussed at your pre-operative medical clearance appointment for an individualized care plan.
- **Do not stop taking your prescription medications** before consulting your healthcare providers.
- You will be required to stop any **nonsteroidal anti-inflammatories** 7 days prior to your surgery. These include ibuprofen (Advil, Motrin), naproxen (Aleve), celecoxib (Celebrex), meloxicam (Mobic), ketorolac (Toradol), indomethacin, diclofenac.
- You will need to stop taking **aspirin and any anticoagulants** (blood thinners) including warfarin (Coumadin), Xarelto®, Plavix®, Lovenox®.
- **Important:** Please consult with the doctor prescribing your blood thinner to make sure it is safe for you to stop this medication. They will provide instructions for stopping this medication, and if you will need “bridge therapy.”
- Stop taking any **herbal supplements and certain vitamins** 7 days prior to surgery including but not limited to St. John’s Wart, Garlic, Ginseng, Gingko Biloba, Multivitamins, Vitamin E and Vitamin C, as these tend to thin your blood.
- If you are on **immunomodulators** (medications that reduce your immune function, and thus increase risk of infection; commonly used to treat autoimmune disorders such as rheumatoid arthritis, psoriasis, lupus, etc.) please notify your surgeon. Also contact the prescriber of these medications to notify them of your upcoming surgery. On some occasions you may need to stop them prior to surgery.
- **Diabetic patients** should not take any oral hypoglycemic agents and insulin products the morning of surgery. Metformin (Glucophage) is the most vital to avoid.
- Check your blood sugar levels on the morning of your surgery. Ask your healthcare provider what to do in advance if they are high or low.
- You should not take any **diuretics** the morning of surgery (i.e. Lasix, HCTZ) (**Unless you have congestive heart failure**). Please speak with your prescribing doctor if you have any questions.
- You should not take any **ACE/ARB** the morning of surgery. These are classes of antihypertensive medications. Examples include Lisinopril, Lotrel, Captopril, Lotensin, Monopril, Prinzide, Atacand, Benicar, Diovan and Avalide.
- Continue gabapentin (Neurontin) & pregabalin (Lyrica). It is acceptable to take your morning dose, but notify your pre-operative nurse.
- Be sure to bring any **medical devices/equipment** with you to surgery; including CPAP oxygen, insulin pumps, inhalers, etc. Ask your healthcare team if you are not sure.

Perform the Following Tasks Before Surgery

- Start taking Calcium 500 mg twice daily with Vitamin D 2000-5000 IU before your spine surgery. Doses are approximate. Plan to be on it for a minimum of 6 months after surgery, but consider remaining on it year-round pending no medical contraindications.
- Make sure you review the postoperative exercises and restrictions.
- Arrange for a family member or friend to check on you in your home and help you through the first couple of weeks after your surgery. The type of surgery you have will determine the length of time you will need help.
- If you are coming from out of town, you may want to stay in a hotel the night before and/or after your surgery. If you are discharged the same day as your surgery, we recommend staying at least one night after, especially if you had a cervical surgery. We will help you make arrangements.
- Arrange to have an adult drop you off the morning of surgery and pick you up after discharge. You will **not** be able to drive yourself home, or take a taxi, on the day of discharge.
- You will be required to fast the night before surgery, and will be given guidelines before surgery. In general, you should not have anything to drink or eat after midnight the night before surgery.
- Pack lightly for your hospital stay. Please do not bring any valuables to the hospital. It is a good idea to bring sneakers and comfortable clothes with an elastic waistband.

Complete Patient Reported Outcomes

Your surgeon believes in understanding the impact surgery had on you. In creating these surveys we are very sensitive to your time and as such have tried to condense them to exactly what is needed to improve your care. The surveys will be obtained prior to surgery, 3 months after surgery and one year after surgery. These surveys will be in the form of an iPad in clinic, an email or a phone call. PLEASE TAKE THE TIME TO COMPLETE THEM. Dr. Sielatycki is an international leader in this area and is constantly reviewing the data to improve patient care.

DAY OF SURGERY:

If you have one, please bring a copy of your advance directive or living will.

What happens in the pre-op area?

You will first be cared for by a pre-op nurse who will review your history, check your vitals, begin an IV and place TED stockings on your legs. These stockings help avoid leg swelling and clots. They may also give medications. You will meet with a provider from the spine team who will complete the surgical consent forms with you. This person will also confirm the type of surgery and confirm the surgery site. You will also meet with the anesthesiologist prior to your surgery. They will review your medical history and obtain a consent from you for surgery. They will start medications through your IV, and make you comfortable before going into the O.R.

Where will you go immediately after surgery?

Once your surgery is over, you will be transferred to the recovery room (PACU). Once you are stable, generally several hours later, you will either be released to go home, or if your surgeon decides it is best for you to stay the night in the hospital you will be transferred to the patient care unit. Your family members and/or friends will be told where your room is and be able to see you when you arrive.

What about pain management after surgery?

Immediately following surgery, you will be given a multimodal pain regimen. This is a combination of medicines that work to minimize complications related to opioids, and make you as comfortable as possible. You will be transitioned off of IV to oral medications as soon as your pain is controlled.

Realize that pain is an important part of the healing process. Therefore the expectation is to have the pain be at a level that is tolerable but not completely gone.

When can I eat following surgery?

Once you are tolerating clear liquids, your diet will be advanced until you are ready for a regular meal again. Expect to eat a soft diet if you had an ACDF, or cervical disc replacement, as it may be difficult to swallow meats and breads post-operatively.

When can I go home?

If you go home the same day a nurse or physical therapist will make sure you can safely get up, use the restroom, and ambulate, as well as make sure you understand your restrictions. A nurse will review discharge instructions with you in detail as well as medications for home. You will need someone to stay with you the first night following surgery.

If you are admitted after surgery (stay the night)

This is typically done for a fusion surgery, or if you have significant medical conditions that preclude safely going home the same day.

Starting the day of your surgery and the following day, physical and occupational therapists will work with you while in the hospital. They will provide you with exercises to regain your strength and with equipment to help you resume your normal activities, such as a reacher to pick things off the floor or a cane or walker to assist with safe walking. They will also teach you how to get out of bed and to sit in a chair. Once you are tolerating getting out of bed and to a chair, a physical therapist will work with you to begin walking. This usually occurs the same day as your surgery. Once you are tolerating walking in the halls with the physical therapist, you will be reintroduced to stairs.

Most people will not need to wear a brace after surgery. Often, you will receive an abdominal binder which may be worn for comfort. Your surgeon will inform you if a brace is required and one will be ordered while you are in the hospital.

A case manager will discuss your home needs while you are in the hospital and order durable medical equipment such as braces and walkers, which can be delivered to your home. They will help coordinate resources once you go home, such as home health, including skilled nursing or PT. They also will help coordinate if a rehab facility is necessary for your recovery.

If you feel you may need to go to a rehabilitation center after surgery it is very helpful to identify the facility and determine what paperwork is needed prior to undergoing your surgery. This information can be given to the case manager.

You can do the following exercises immediately after surgery (at home and in the hospital). Do these exercises 10 times on each the right and left side, repeating 2-3 sets throughout the day as tolerated. Stop if it becomes painful.



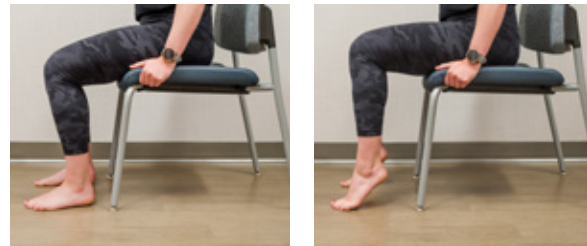
With leg elevated, gently flex, and extend ankle. Move through full range of motion. Avoid pain.



Slowly rotate foot and ankle clockwise then counterclockwise. Gradually increase range of motion. Avoid pain.



Raise toes, keeping heels on floor.



Raise heels, keeping toes on floor.



With foot turned in, tighten muscles on back of thigh by pulling heel down into surface. Hold 10 seconds.



Tense muscles on top of thigh. Hold 10 seconds.



Tighten buttock muscles.



Bring leg out to side and return. Keep knee straight.

YOUR RECOVERY:

GOING HOME AFTER SURGERY

Do not be surprised if you require frequent naps during the day. Between the opioid pain medications you will be discharged with and the stress your body has undergone in surgery, you will be tired.

Pain Medications

We will provide the medications needed after surgery. Our goal is to minimize the need for opiate pain medicines. We will review our **Multimodal Pain Regimen** with you, and information will be provided regarding what to take and why. **Be sure to drink plenty of fluids, take stool softeners prescribed, and increase your fiber intake while taking opioid medications as they tend to cause constipation.** Do not allow constipation to progress more than 2 days without intervention i.e. laxatives, glycerin suppository, or an enema.

If you are going to need a refill of your pain medicine, please call our office at least 3 days before your prescription runs out. Please do not call on Thursday or Friday. We cannot give refills at night or on weekends. **Please plan ahead.**

You should begin to wean yourself off of the pain medications as soon as possible. If you are still requiring opioid medications after 6 weeks we will help you find a pain management specialist, but we will not continue to prescribe them unless there are unusual circumstances agreed upon by you and your surgeon.

If you had a fusion surgery, you should refrain from taking non-steroidal anti-inflammatory medications. Usually patients are asked to avoid these medications for 6 months after surgery but this decision can be made by your surgeon. These medications include, but are not limited to: ibuprofen (Advil, Motrin), Naprosyn (Aleve), Celebrex, meloxicam (Mobic), Indocin, Voltaren, aspirin, and Lodine.

Nutrition

Eating a well-rounded diet is critical to bone and wound healing after surgery. Be sure to eat plenty of protein, and if you have appetite try and have an Ensure shake or diabetic equivalent, if diabetic, with each meal. Take vitamin D 2000 international units and calcium 1000 mg supplement. The doses don't have to be exact, but approximate. However, these supplements are critical in the bone healing process.

Surgical Incision Care

Please Remember: ** If you notice any increase or change in drainage, redness, swelling, or have a fever of 101.5 or greater, please call your surgeon's office immediately.

Your surgical incision will be closed with dissolvable sutures and a waterproof closure. Rarely you may have non-absorbable sutures. If you have visible sutures, these will need to be removed 14 days after your surgery. Instructions will be provided before you are discharged from the hospital if you need to make an appointment for suture removal.

If you go home with any drains, specific instructions will be provided.

YOU MAY NOT BATHE IN A TUB, SWIM, OR USE A HOT TUB UNTIL YOU HAVE SEEN YOUR SURGEON.

(Usually for 6 weeks post-op)

Sexual Activity

You can resume sexual activity when you are feeling up to it. You may find certain positions will be more comfortable than others. Caution and common sense are recommended and a safe rule of thumb for positions is if it hurts, then don't do it.

Driving

You can drive when you feel safe to do so, and are not taking opioid pain medications. Begin with short trips first and get out of the car every hour to walk around and re-position.

Return to work

Naturally, you will feel tired after surgery. You will begin to feel yourself after 2 to 3 weeks and improve over the following weeks. It depends upon your job as to when you are able to go back to work. **In general, you may return to work as soon as comfortable, as long as restrictions are followed.**

TECHNIQUES & RESTRICTIONS

Walking is the best activity you can do for the first 6 weeks after surgery. It strengthens your muscles, conditions your heart and lungs, and helps the nerves heal and prevents them from scarring. You should start out slowly by splitting up walks throughout the day, and work up to walking **at least 1 mile per day** as soon as you are able. Be sure to walk in an upright posture, as though you are a soldier standing at attention.

Don't forget about your **restrictions** for the first 6 to 12 weeks after surgery. You need to avoid twisting and bending. You also need to avoid lifting, pushing or pulling objects greater than 15 lbs.

- If you had a decompression (laminectomy, microdiscectomy) you will need to follow these restrictions for 6 weeks.
- If you had a fusion surgery, 12 weeks of restrictions.
- If you had a cervical disc replacement you will not have these restrictions, but you should avoid high impact activities for 6 weeks.

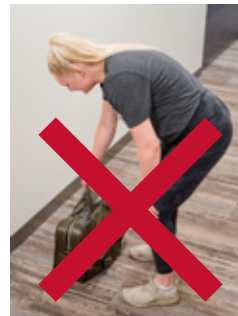
Lifting and activity restrictions will be gradually removed as the healing process takes place. Remember to keep your spine in the neutral position and maintain good posture throughout the day.



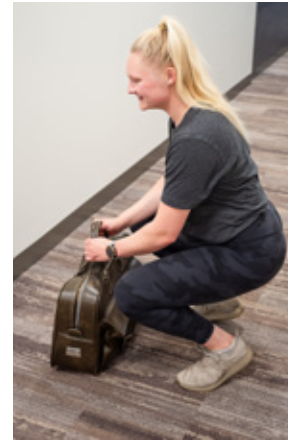
Below are some ways for you to avoid twisting and bending during daily activities.



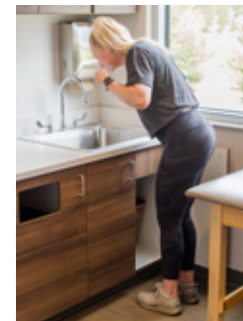
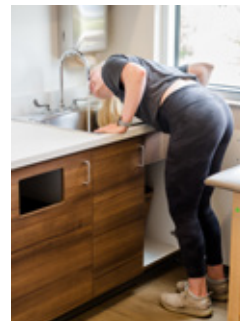
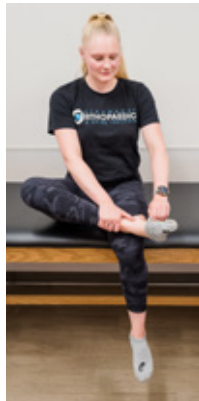
Avoid twisting or bending back. Pivot around using foot movements, and bend at knees if needed when reaching for articles.



Bend at hips and knees, not back. Keep feet shoulder-width apart.



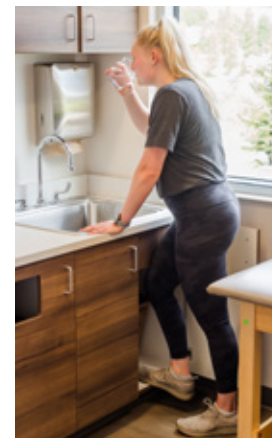
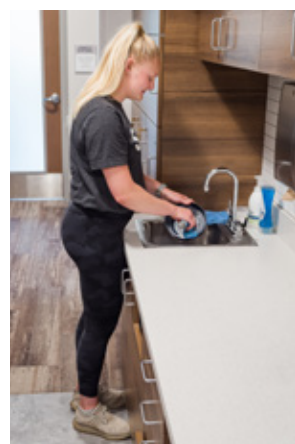
Lie on back to pull socks or slacks over feet, or sit and bend leg while keeping back straight.



Place one foot on ledge and one hand on counter. Bend other knee slightly to keep back straight.



Stand with one foot on ledge of cabinet under sink.





Squat with knees apart to reach lower shelves and drawers.



Squat or kneel. Knee pads may be helpful.



When getting a child out of a car, stand close and keep back straight. Bend knees to put baby in or take baby out of car seat.

When doing laundry, squat down to reach into clothes dryer. *Small items can be placed in a large zippered mesh bag, and pulled out using a reacher.*

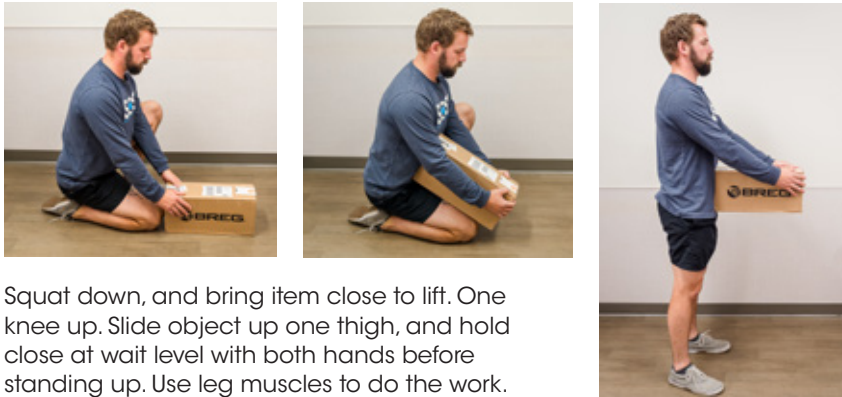
You will also need to use proper technique to lift light objects. Proper technique is essential for reducing pain and discomfort.

The best way to lift an object is as follows:

- Stand close to the object, with feet firmly planted, and in a wide stance
- Bend your knees and keep your back straight
- Make sure you have a secure grip on the object and keep the object **as close to you as possible**
- Lift the load by slowly straightening your knees and avoid jerking your body
- When standing upright, shift your feet to turn instead of twisting

Below are some ways for you to lift properly, but remember lifting objects greater than 15 lbs. for the first 6-12 weeks after surgery is not recommended.

Off Ground with One Knee



Squat down, and bring item close to lift. One knee up. Slide object up one thigh, and hold close at waist level with both hands before standing up. Use leg muscles to do the work.

Deep Squat



Squat and lift with both arms held against upper trunk. Tighten stomach muscles without holding breath. Use smooth movements to avoid jerking. Use knees and keep back straight.

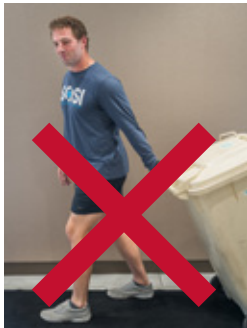
A proper technique can be difficult when lifting objects from the trunk of your car, but the following suggestions can help: When lifting items in and out of your trunk, place your foot on the bumper of your car for support if it is not too high. Items should be stored in the trunk close to the bumper. Items can be lifted onto the car frame first and then lifted from car frame to carry. Brace yourself with one arm if you need to reach something deep inside the truck.



Pushing and pulling objects greater than 15 lbs. for the first 6-12 weeks after surgery is not recommended.

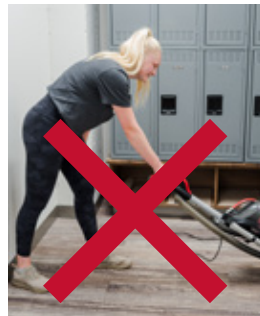
If possible, always push rather than pull and remember to pace yourself and take frequent breaks. Proper body mechanics when pushing or pulling objects is important. The following examples display proper technique for daily activities. However, all of these activities should be avoided for the first 6 weeks.

Pushing / Pulling



Pushing is preferable to pulling. Keep back in proper alignment, and use leg muscles to do the work.

Housework - Vacuuming



Hold the vacuum with arm held at side. Step back and forth to move it, keeping head up. Avoid twisting.

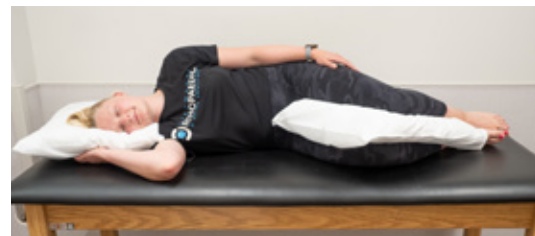
Similarly, when mowing your lawn, keep arms close to sides and walk with lawn mower.

SLEEPING AFTER SURGERY

The best sleeping position to reduce your pain after surgery is either on your back with your knees bent and a pillow under your knees or on your side with your knees bent and a pillow between your legs. If side sleeping provides the most benefit, then make sure your legs rest on top of each other with your knees bent or have your top leg slightly forward. Avoid resting your top knee on the bed and sleeping with your arms under your neck and head. A pillow placed behind the body and tucked under the back and hips can help you from rolling out of this position. When sleeping on your back, avoid sleeping with your arms over your head because this puts too much stress on your shoulders and neck. Both positions decrease the pressure on the spinal discs and low back. Sleeping on your stomach is not recommended.



Place pillow under knees. A pillow with cervical support and a roll around waist are also helpful.



Place pillow between knees. Use cervical support under neck and a roll around waist as needed.

****If you had a cervical fusion or disc replacement surgery, remember to raise the head of the bed 30 degrees the first week after surgery.**

Changing positions in bed can be very difficult for people after surgery. To reduce discomfort, always use the log roll when turning. A log roll means to keep your back straight and avoid twisting when rolling from side to side and onto your back.



The **log roll** can also be used for getting in and out of bed. If getting out of bed on the right side – log roll onto your right side and use your left hand to push yourself up onto your right elbow. Slowly drop your lower legs off the bed as you push yourself up onto your right hand and into a sitting position. Scoot to the edge of the bed and place both feet on the floor. Use your legs and not your back to come to a standing position.



SITTING AFTER SURGERY

Sitting places a lot of stress on your back and can be painful after surgery. It is important to maintain your normal spinal curves when sitting to help minimize this stress, because slouching or sliding down in your chair unnecessarily places strain on your back. To avoid slouching, keep your ears, shoulders and hips aligned. Make sure you have a proper chair that fits you. Choose a chair that provides support for your lower back and allows your feet to be flat on the floor with your knees the same level as your hips. After surgery, avoid sitting in soft chairs and on couches where your hips drop below your knees. If a chair is too high for you, place your feet on a small stool or box to help maintain correct sitting posture. Take frequent breaks by standing up and stretching every 30 to 60 minutes.



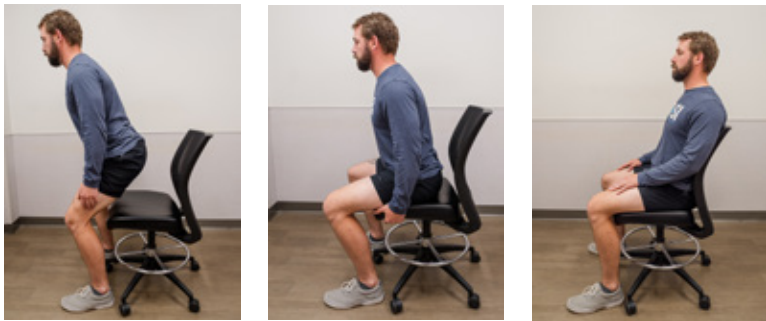
SITTING AT YOUR DESK AFTER SURGERY

If working at a desk after surgery, having a chair that swivels or turns is better than trying to twist your body to reach objects. If you need to turn, try moving your body as a single unit. Keep your hips and feet pointed in the same direction when you are moving. If you have a telephone that you constantly twist to answer, move the phone so it is in front of you. When you are on the phone, do not use your head to hold the receiver. Support the arm that is holding the phone by placing that elbow on the desk or arm rest and keep your neck in good alignment. You may also want to consider using a headset or headphones if you are on the telephone quite often. Items should always be placed within easy sight and access, and keyboards should be placed directly in front of you. Heavy books should be arranged close by and not above your head on shelves. Consider a standing desk at work.



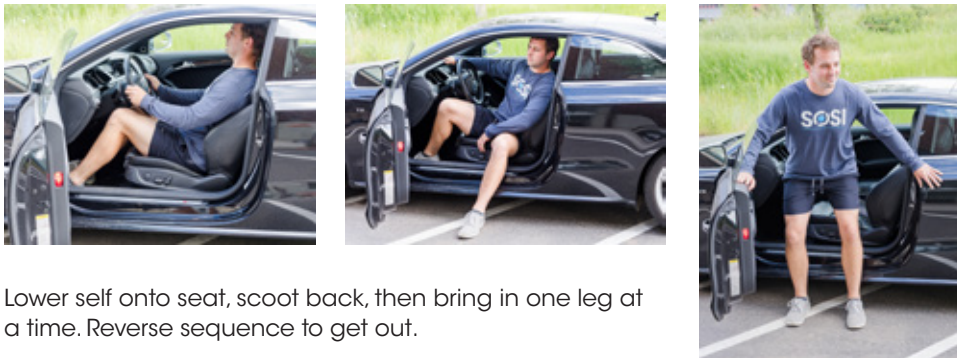
GETTING IN AND OUT OF A CHAIR OR CAR

Getting in and out of a chair or car can be difficult after surgery. To get out of a chair, slide to the edge of the chair and straighten your hips and knees to lift yourself from the chair. Sometimes placing one foot in front of the other can help. If a chair has arm rests use your hands to assist you and remember to keep your back straight. Avoid bending at the back or leaning too far forward. To return to a sitting position, move backwards until the backs of your legs are touching the chair. Place one foot in front of the other and keep your back straight. Lower yourself to the edge of the chair by bending at the hips and knees.



To sit: Bend knees to lower self onto front edge of chair, then scoot back on seat.

To stand: Reverse sequence by placing one foot forward, and scoot to front of seat. Use rocking motion to stand up.



Lower self onto seat, scoot back, then bring in one leg at a time. Reverse sequence to get out.

POST-OPERATIVE SPINE PROGRAM

Phase I: Weeks 0-6

Walking Program

Walk as much as you can over the next 6 weeks during recovery.



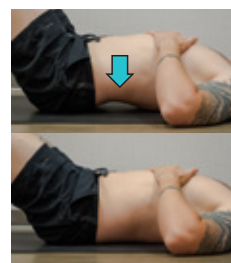
Shoulder Rolls / Posture exercise

Perform shoulder rolls/scapular squeezes by bringing shoulder blades toward one another. Can be performed while seated initially. Perform 20 repetitions, 2 times per day.



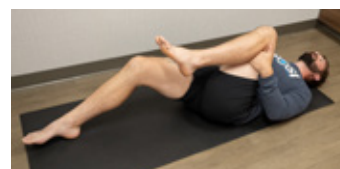
Transverse Abdominus Setting

Exhale and gently engage your core muscles by tightening lower abdominals and hold the contraction while taking 2-3 breaths. This can be performed in sitting or lying position with knees bent. Try to initiate core activation with activities such as getting out of bed, moving from sitting to standing. Perform 20 repetitions, 2 times per day.



Single Knee to Chest

While maintaining shoulders and head on the bed, bring one knee at a time toward your chest and stretch while taking 2-3 breaths. Alternate legs, bringing up slowly. Perform 20 repetitions, 2 times per day.



Bent Knee Fall Outs

Begin on your back with your knees bent, feet resting flat on the floor. While maintaining a neutral spine, inhale to slowly lower one knee towards the ground. Then, exhale to bring it back to the starting position. Repeat with the other leg. Do not allow your pelvis to rotate during the exercise. Perform 20 repetitions per leg, 2 times per day.



Abdominal Isometric

While on your back, gently tighten your lower abdominals and maintain neutral spine. Bring one leg up to tabletop and lengthen arms out so hands are against the knee. Exhale while pushing with moderate pressure into the top of your knee and hold for 3-5 sec. Repeat with the other leg. Do not let your back flatten or arch. Perform 10-20 repetitions, 2 times per day.



Nerve Glide/Hamstring Stretch

Start by lying on your back and holding the back of your knee. Next, attempt to straighten your knee as much as you can comfortably. Don't over stretch! Then, hold this position and bend your ankle forward and back as shown. Work on each leg for 1-2 minutes, once per day.



POST-OPERATIVE SPINE PROGRAM

Phase II: Weeks 6-12

Continue progressing your Phase I exercises.

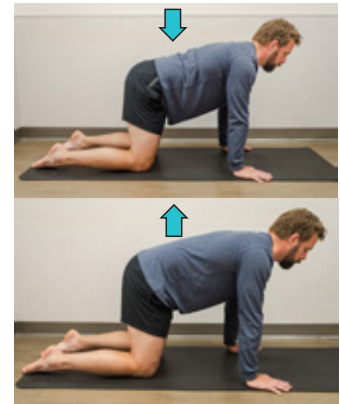
Walking Program

Continue to increase your distance and pace within your personal walking program.



Quadruped Transverse Abdominus

On hands and knees with spine in neutral, take in a big breath allowing the belly to expand downward toward floor. As you exhale, feel the elastic recoil of your belly and follow it by drawing your belly up to your spine. Your spine should not move while performing. Perform 20 repetitions, 1 time per day.



Quadruped Arm Lift

Begin on hands and knees with knees directly under your hips and hands directly under your shoulders. Keep your abdominals engaged throughout this exercise. Raise one arm straight up as pictured without letting your spine or pelvis move and without losing your abdominal contraction. Hold for 3 seconds, then return to the start position and repeat with the opposite arm. Perform 20 repetitions, 1 time per day.



Quadruped Leg Lift

Begin on hands and knees with knees directly under your hips and hands directly under your shoulders. Keep your abdominals engaged throughout this exercise. Raise one leg straight up as pictured without letting your spine or pelvis move and without losing your abdominal contraction. Hold for 3 seconds, then return to the start position and repeat with the opposite leg. Perform 20 repetitions, 1 time per day.



Cobra

Press tops of feet down before lifting upper body to avoid increased pressure on lumbar region. Inhale to lift, exhale to return to neutral. Perform 20 repetitions, 1 time per day.



Marching with Transverse Abdominus

While lying on your back with your knees bent, engage core, then slowly raise one leg off the floor, then lower. Then bring the other leg up, then lower. Make sure your back doesn't arch as you lift and lower each leg and that you keep your pelvis level. Progress by bringing one leg at a time into lifted position, then lowering one leg at a time. Perform 20 repetitions, 1 time per day.



Bridging

Begin lying on your back with your knees bent and your feet flat on the floor. Exhale to slowly lift your hips until you reach about mid back. Make sure not to arch your back/flare your ribs. Then slowly lower. Perform 1-3 sets of 10 repetitions, 1 time per day.



Happy Baby

Open knees wide and hold onto outside of each foot. Gently draw knees down toward armpits and hold stretch for one minute. Consult your PT for modifications of this pose. Repeat 5X, once per day.



Chair Pose

Engage core and sit into an imaginary chair with arms raised overhead, maintaining spine alignment. Breathe and hold pose for 1 minute. Repeat 10X, once per day.

POST-OPERATIVE SPINE PROGRAM

Phase III: Weeks 12+

Continue progressing your Phase I and II exercises.

Thoracic Rotation

Begin by laying on your side with both knees bent. Open top arm out straight, rotating through your mid back. Turn your head and neck toward opening arm. Keep this movement pain-free, and keep hips in side-lying position. Hold position for 20 seconds, then switch to other side. Repeat 3X on each side.

Cat and Cow

Inhale and let stomach sink, tailbone and head lift
Exhale to round spine and tuck tailbone
Perform 20 repetitions, 1 time per day.

Squat

Sit your hips back as you bend your knees into a squatting position. Keep your toes pointing forward, feet hip-width apart. Imagine you are lowering your body to a low chair, maintaining core activation to protect your spine. Return to standing position. Repeat 20 repetitions, once per day.

Downward Facing Dog

Press heels into floor, knees can bend to accommodate tension. Press open palms into floor. Hold pose for 5 full breaths, in and out. Repeat 5X, once per day.

Warrior 1

Step into a wide legged lunge stance with front foot pointing forward, back toe turned out. Reach arms overhead, engage core. Hold position for 5 full breaths, in and out. Repeat 5X on each side, once per day.

Plank

Press the floor away as you maintain spine alignment, while engaging core. Consult your PT for exercise modifications. Hold pose for 5 full breath cycles. Repeat 5 times, once per day.



FOLLOW UP

A **6 week follow-up** will be arranged prior to surgery for your first post-operative visit. However, we are constantly available via phone prior to that visit and will bring you in earlier if needed. We will also see you approximately 12-16 weeks post-op.

Physical Therapy

At your 6 week follow-up appointment in the clinic, you may be given a handout of lower back or neck exercises to begin at home. You may also be given a prescription for outpatient physical therapy depending on how well you have recovered so far. You may go to the physical therapist of your choice. Until that time, focus on walking. You may also start PT before your 6 week appointment. Let us know if you would like to do that.

X-rays

For fusion patients and disc replacements, these are typically obtained at 6 weeks and again at 12-16 weeks post-operatively.

Patient Reported Outcomes

Please look out for 2 surveys after surgery; at 3 months after surgery, and one year after surgery. PLEASE TAKE THE TIME TO COMPLETE THEM. Dr. Sielatycki is a leader in this area and is constantly reviewing the data to improve patient care.

What happens if my expectations of surgery are not met?

- First, discuss your symptoms with someone from your surgical team
- We may order a new MRI or CT scan
- We may provide you with a referral to a pain management specialist

The best thing to do is to stay positive and resume normal activity. Walking is a great way to increase your energy level and decrease pain and stiffness. Nerves heal at very different paces for everyone.

If you had weakness prior to surgery, it can take up to 18 months to know how much of this will be regained. In some instances, full strength will not return. The goal of surgery is to *stop progression* of weakness and other deficits due to nerve compression. Some weakness may be irreversible.

Even if the surgery is not 100% successful, you are probably better and are walking further than you were before surgery. Do not become discouraged. It takes time to recover fully from spine surgery, even 12-18 months. Your own attitude and pro-active approach to your care will lead to a faster recovery.

Remember, as we mentioned before, the chances of surgery resolving your leg or arm pain are very high compared to relieving your neck or back pain. Many people still have some neck or back pain after surgery.

Don't stop doing things if you still have pain; simply find an easier way to do them. Inactivity will cause you to stiffen up and will lead to more pain and discomfort. Try to establish a daily exercise routine. If you don't have time to exercise, try these helpful hints:

- Take the stairs instead of the elevator
- Park far away from work or shopping centers and walk to the entrance
- Stand up and stretch every hour when sitting at a desk

Additional resources to help you with a successful recovery

SOSI Website; Educational materials:	www.steamboatortho.com
American Academy of Orthopaedic Surgeons:	www.aaos.org
North American Spine Society:	www.spine.org
eSpine:	www.espine.com
Spine Health:	www.spine-health.com
Spine Universe:	www.spineuniverse.com
Smoking Cessation resources: Colorado QuitLine 1-800-QUIT-NOW	www.Tobaccofreeco.org

Important telephone numbers:

SOSI Clinic, Steamboat Springs CO:	970-879-6663
SOSI Surgery Center:	970-439-1100
Yampa Valley Medical Center, Steamboat:	970-879-1322
Fraser, CO Clinic:	970-364-2070
Rock Springs, WY Clinic:	307-448-3220
Rock Springs, WY Hospital (AMMC):	307-352-8900
Craig, CO MRH Clinic:	970-826-2450
Memorial Regional Health Hospital, Craig CO:	970-824-9411
Thunder Basin Orthopaedics Clinic:	
Douglas:	307-358-6200
Gillette:	307-682-6222
Yellowstone Sports Medicine Clinic, Cody WY:	307-578-1953
Powell Valley Healthcare Hospital, Powell WY:	307-754-2267
Pioneers Medical Center Hospital, Meeker CO:	970-878-5047
Colorado Advanced Orthopedics Clinic, Meeker CO:	970-878-9752



705 Marketplace Plaza, Suite 200, **Steamboat Springs**, CO - 970.879.6663
45 County Road 804, Suite 201, **Fraser**, CO - 970.364.2070
17230 Jackson Creek Parkway, Suite 260, **Monument**, CO - 719.301.3010
4401 College Drive, **Rock Springs**, WY - 307.448.3220

www.steamboatortho.com | info@steamboatortho.com