Preventing Postoperative Complications

Adult Spinal Reconstruction

Christopher R. Good, MD

Note: This information applies to Dr. Good’s patients who are having spinal reconstructive surgery for the correction of scoliosis, kyphosis, or flat back syndrome. This information does NOT apply to other Virginia Spine Institute patients for other conditions.
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Anatomy and Fusion Overview

Your spine is made of 26 bones known as vertebrae (7 cervical, 12 thoracic, 5 lumbar, the sacrum and coccyx). Vertebrae are separated by discs. Each disc has a soft, jelly-like center surrounded by a tough outer layer of fibers that together act as a shock absorber. Discs, bony structures, ligaments and strong muscles all stabilize the spine. The spinal cord is made of nerves leading to and from the brain and runs through the bony spine. It controls and transmits all muscle movement and sensation for the trunk, arms and legs. Nerve roots come from the spinal cord and carry electrical impulses to and from muscles, organs and other structures. To learn more about spine anatomy or glossary terms visit our website.

The terms scoliosis and kyphosis refer to an abnormal curvature of the spine due to either a childhood curvature or from a combination of degenerative spinal conditions. Surgery to correct adult scoliosis is an option if nonsurgical treatments do not relieve pain or symptoms. Surgery is needed for patients whose curves are progressing over time or have curvatures leading to nerve compression causing symptoms such as numbness, weakness, or pain. In general curves greater than 45° and curves with severe degenerative changes are best treated with surgical reconstruction. Surgical reconstruction for adult scoliosis involves some correction of the curvature through a fusion surgery. Goals of surgery are to relieve pain and prevent the curvature from worsening in the future.

Surgery to correct adult scoliosis may be performed from several approaches. The decision to undergo scoliosis correction surgery should only be made after a careful evaluation and discussion between the patient, the family, and the surgeon. We work to fuse the smallest number of vertebrae possible. This helps maximize remaining motion in the spine. The decision of how many vertebrae to fuse is based on the patient's x-rays and clinical appearance. This final decision is discussed at length with the patient as part of the surgical decision making.

For a spinal fusion surgery, your doctor will make an incision down the middle of your back for a posterior spinal fusion. You may have an anterior spinal fusion through a lateral (side) or lower abdominal approach as well. Rods and screws, and sometimes hooks stabilize the affected area while the bone graft is healing or fusing. Your doctor will choose the best instrumentation and procedure for your individual needs. Bone graft is used to fuse and stabilize the spine. Your doctor will discuss your specific bone grafting options with you.
Risks and Complications

There are risks associated with any surgery. Your surgeon would not recommend this procedure for you unless the expected benefits far outweigh risks. These risks not meant to scare you, but to make sure you have information needed to make an informed decision. For every risk, steps are taken to minimize the chance it occurs. We obtain preoperative lab work to screen you medically and have you cleared for surgery by your primary care physician. Discuss with your doctor any concerns.

Some risks/complications are minor and can be easily treated without affecting your ultimate recovery. The possibility you will experience a minor complication is 5-30% depending on the situation. The following are some of the more common minor complications that may occur and ways we try to minimize these risks.

- Muscle soreness/pressure areas from positioning in surgery – padding/special tables are used in the OR
- Superficial wound infection – antibiotics/sterile technique
- Bladder infection – possible from having a Foley catheter assessed by a urine culture
- Constipation from anesthesia and narcotics. – Stool softeners, laxatives, suppositories or enemas may be used.
- Ileus – Slowing of the bowels with bloating and constipation caused by surgery, anesthetics, pain medicine and postoperative inactivity.
- Transient nerve irritation – pain, numbness and weakness from manipulating nerves during surgery. Spinal cord monitoring is done during surgery to warn the surgeon of any problems.
- Blood clot in your leg – TED compression hose and sequential compression devices are used in the hospital
- Spinal fluid leak/dural tear – repaired in surgery but you may be on temporary bed rest
- Postoperative pulmonary problems – lung treatments are used postoperatively.
- Postoperative confusion from anesthesia/narcotics – normally resolves when medication is discontinued. This is very rare in children and more common in elderly patients.

The possibility of a major complication is 1-10% depending on the situation. Significant complications are very rare but still need to be mentioned. Again, preventative measures are taken to reduce the possibility of any risks. Some major risks of spine surgery are:

- Neurologic deficit, up to and including paralysis – spinal cord monitoring is used during surgery to detect nerve irritation/problems.
- Pulmonary Embolism – measures to prevent blood clots in your legs are taken.
- Deep wound infection necessitating surgery to clean out your wound and long term antibiotic treatment – sterile technique and antibiotics are used
- Pseudarthrosis or instrumentation breakage/pullout –postoperative restrictions help decrease stress on the spine while the fusion is healing.
- Major medical problems – stroke, heart attack, etc. up to death cannot be predicted.
Preparing for Surgery Before Your Operation

There are several things you must do to prepare for your surgery. For larger surgeries, it is often recommended that the patient donate their own blood required for post-operative replacement needs from surgery. If you are unable to donate all the blood needed, you can obtain donors that have a compatible blood type. Your doctor will discuss this with you further.

During the time prior to your admission, you can also be getting your home “ready”. Keep in mind you have **no bending, twisting, stooping or heavy lifting restrictions during your recovery period**. You should place frequently used objects at an easily reached height. You may want to “stock-up” on prepared meals to reduce cooking needs. Please make arrangements for someone to help with your house cleaning, laundry and grocery needs. Patients often need adaptive equipment such as a wheeled walker or an elevated toilet seat after surgery. An occupational and physical therapist will see you during your hospitalization and help you obtain any equipment you will need at home.

Before your operation, you will need primary care clearance prior to surgery along with necessary blood tests. You may need a chest x-ray and/or EKG to help evaluate your general condition before undergoing anesthesia. Sometimes a heart or lung evaluation is required. Please use our check-list below for these reminders.
Your Surgery Planning Checklist

- Primary Medical Clearance from: ____________ (your doctor)
- Pre-admission Testing (Chest X-ray, EKG, blood and urine tests)
- Anesthesia Consult at Reston Hospital
- +/- Total Blood Unit Donations: _____ # of yours ___ # of donated ___
- +/- Pulmonary or Cardiology Consult
- +/- Bone Density Test (DEXA)

Preparing Your Home & Help You May Need:

- Confirm your bed is appropriate. You will be able to sleep in your regular bed as long as it is not too low to the ground or a waterbed. It is rare to be discharged home with a hospital bed.
- Place frequently used items in easy to reach places. Remember you will not be able to bend, lift or twist your back.
- Arrange for assistance with household chores including meal planning. Make meals for you and your family ahead of time & have someone do your grocery shopping or arrange for grocery delivery service.
- Plan an indoor walking area cleared of obstacles. Plan to walk this twice every morning, afternoon and evening. Remove throw rugs as these can be easily tripped over.
- Have a chair with armrests and a firm seat available.
- Make any needed adjustments to your bathroom. Apply non-skid stickers/mat to bath tub/shower. If needed, you will be sent home with bathroom equipment from the hospital.
- Arrange for assistance w/ brace if necessary as well as buy t-shirts for under the brace. If you are supposed to wear a brace after surgery, snug t-shirts worn under the brace help absorb some of the body’s perspiration and prevent skin breakdown.
- Arrange for someone to pick you up by car from the hospital. Arrange for transportation for several weeks as you will not be able to drive for approximately 4-6 weeks.
- Arrange for someone to stay with you for at least a few days after you go home from the hospital. This may need to be as long as 1-2 weeks depending on the size of your surgery.
**Items to Bring with You to the Hospital:**

- Please leave all valuables at home. You will need to bring any personal toiletry items needed during your hospital stay (toothbrush, toothpaste, comb, brush, deodorant, lotions, dry shampoo, detangler spray, face wipes, etc.)
- You will wear a hospital gown during your stay. You may want to bring slippers and a robe for out-of-bed activities.
- If you are to wear a brace, pack 1-2 snug fitting t-shirts to wear under your and larger sized shirts for wearing over.
Prior to the Day of Surgery

*Nothing to eat or drink after midnight the night before your surgery.* You can brush your teeth in the morning, but do not swallow any water.

Medications for **blood pressure**, **heart** and **breathing** may need to be taken with a small sip of water the morning of surgery. **The anesthesia staff will let you know what medications, if any, you should take. Do not take any other than those specifically addressed.**

**ASPIRIN** products and **BLOOD THINNERS** (Coumadin) need to be stopped **1-2 WEEKS prior to surgery.**

**Stop all NON-STEROIDAL ANTI-INFLAMMATORY medications/arthritis medicines** (such as Advil, Aleve, Ibuprofen, Motrin, Naprosyn, Celebrex, Indocin, Mobic, Voltaren etc.) **ONE WEEK before surgery.** Tylenol products are approved and suggested in the interim.

Some **ANTIDEPRESSANTS** will need to be stopped a few days to one week prior to surgery.

Some medications such as **Insulin** and **Prednisone** have specific instructions to be adjusted prior to surgery. Please let your surgeon know all medications you are on.

Patients with **pacemakers** will need to check with their cardiologist to see if the pacemaker settings need to be reset 1-2 days prior to surgery. The electrical currents in the operating room could alter pacemaker rhythm if the settings are not adjusted.

We will let you know where your family should wait during your surgery so your doctor can speak to them after your surgery.

The average length of stay in the hospital is 5 to 7 days, depending on the type and amount of spinal surgery done. You will work with a physical therapist and occupational therapist during your stay to help you learn to move safely. Our surgical team along with your nurses, social worker, physical therapist and occupational therapist will help prepare you for discharge.
Wake-Up Test for Spinal Surgery

During and/or after your surgery, you will be asked to perform several maneuvers to test your neurological function. As you will be under the influence of anesthesia, it is important that you are familiar with what will be requested of you prior to your surgery. Please practice these movements prior to your surgery.

**Key phrases you will hear in the operating room:**

- “MOVE YOUR FEET AND TOES UP AND DOWN”
- “TOES TO THE NOSE” - With someone holding on the top of your foot and then your big toe, pull up against their hand.
- “PUSH DOWN ON THE GAS PEDAL” - With someone holding under your foot, push down as if you are stepping on the gas pedal.
- STRAIGHTEN YOUR KNEES”
- “PUSH OUT WITH YOUR KNEES” - Have someone hold their hand on your knee and gently push down. Try to bend your knee up against them.
- “PUSH IN WITH YOUR KNEES” - Have someone hold their hands inside your knees and gently push out. Try to push your knees in against them.
- “SQUEEZE YOUR HANDS”
- “KEEP YOUR ARMS UP” - Bend your elbows and keep your hands by your shoulders. Have someone hold outside your forearms and push away against them.
- “PUSH ME AWAY” - Bend your elbows and keep your hands away from your shoulders. Have someone hold the inside of your forearms and pull your arms in against them.
- “KEEP YOUR ARMS OUT” - Hold both arms out to the side and resist downward force.
Toes to the nose

Foot on the gas pedal

Push knees in

Push knees out

Straighten Knees
**Your Hospital Stay**

After surgery at Reston Hospital, you will be taken to the Recovery Room. You will then be transferred to the Orthopaedic floor. Occasionally, patients may go to the ICU for closer observation before going to the regular hospital floor.

It is not uncommon for patients to return from surgery looking swollen. This is from IV fluids given during surgery and body positioning. This swelling generally resolves in 1-2 days.

During the first 1-3 days of your recovery you will be closely monitored. You may have a cardiac monitor on to watch your heart rate and rhythm. You will wear elastic, knee-high stockings (TED hose) as well as inflatable plastic wraps (sequential pumps) on your legs to help prevent blood clots. You will have oxygen available to make breathing easier.

You will have a Foley catheter tube placed into your bladder after you are asleep in the operating room. This is to drain urine during surgery and once you are awake prevent you from needing to get out of bed to urinate. Your nurse will monitor the amount and color of your urine to make sure you are getting enough fluids. The Foley catheter will be removed once you are able to get out of bed or use a urinal safely.

You will have one or more drains (Hemovacs) near your back incision. These drains collect excess bleeding and drainage from under the skin. This keeps your wound from swelling and helps us estimate any blood loss.

Your nurse will monitor your overall fluid intake and output for a few days. You will have 1-2 IVs in your arms for fluids and medication. You won’t be able to eat or drink until your stomach and intestines “wake up” from surgery. We always start slow and see how your stomach responds. You will begin with ice chips & sips of water then slowly advance up to a regular diet.

If you have an anterior spinal fusion from a lateral approach (an incision along the rib cage) you may have a chest tube after surgery. The chest tube is usually inserted for 2-3 days and will keep fluid from accumulating and compressing your lung. If present, you will have a chest x-ray done every day while the chest tube is in place.

Nurses will encourage you to take deep breaths and cough. This helps get air reach your deeper lung bases to prevent lung collapse and pneumonia. An Incentive Spirometer device is used to help measure how deeply you breathe. You will be given one and shown how to use this in the hospital.

You will be turned by the logrolling method. A sheet will be placed from your shoulders to your knees to help the nurses turn you as one unit. *Hips and shoulders must move together*. You will learn how to get up like this with help. Turning also prevents pressure sores. Generally you will sit or stand at the side of the bed the day after surgery.
Pain Management

Pain is an uncomfortable feeling that tells your body something has happened. Pain medicine blocks these messages or reduces their effect on your brain. After surgery, you will be on special pain medicines to help keep you comfortable. Please be sure to tell your doctors and nurses if you are allergic or have adverse effects to any pain medications.

A special pump, called a Patient-Controlled Analgesia pump or PCA, will administer your pain medicine. This pump is at your bedside and you will be able to control your pain medicine. Shortly after you wake up from your operation, the PCA pump will be hooked up through your IV for you to use. The PCA pump has a special button you push when you need more pain medicine. The button is only for your use, not to be pushed by the nurse or your family. Your PCA is set up so you don’t give yourself too much medicine. A “Pain Team” in the Department of Anesthesia will manage your pump if changes need to be made to help you feel comfortable.

Medications

- You will be given several prescriptions for pain medication when you are discharged home.
- Take over the counter stool softeners while you are taking narcotic pain medication to help keep your bowel movements regular.
- **IF** you donated your own blood prior to surgery, please restart your iron pills again once home.
- **Do not use any non-steroidal anti-inflammatory medications (ibuprofen, Advil, Aleve,Celebrex, etc.) until your doctor authorizes it.** These medications slow the fusion healing process.
Post-Operative Care

Incision & Wound Care
Patients are sent home with steri-strips (small tape strips) or staples over their incision. You will not need to apply anything to the incision at home. You need to keep it clean and dry. Have someone check the incision each day to observe for wound problems. It is not uncommon to feel numbness around the incision. This is expected with any skin incision and the area of numbness gradually shrinks with time. If any drainage, redness or increased pain develops at the incision site, CONTACT YOUR DOCTOR.*** ANY DRAINAGE requires a call to the doctor. ***

You may also notice a protrusion of their abdomen around an anterior incision. This laxity of the muscles and tissues after repair, especially anteriorly, is very common. Muscle tissue simply does not close as tightly as other tissues. This should not represent great concern and does not necessarily mean you have a hernia.

Bending and Lifting Restrictions
During the first 3 months, do not bend, stoop, twist or lift. Do not bend forward any further than to brush your teeth. Do not carry more than 10 pounds (1 gallon of milk weighs 8-9 pounds). When you lift something, keep it close to your body so that your leg and arm muscles do the work. Remember to brace your abdominal muscles, bend at the hips and knees keeping your back straight and the curves of your spine balanced. This will help prevent pain and further injury to your spine.

Bathing
Most patients will be able to shower 3 days after surgery. Stitches underneath the skin will dissolve on their own with time. If they get wet too early, they dissolve too quickly and wound problems may develop. Once the incision can get wet, you may stand in the shower or use a shower bench. Tub baths are not allowed. When you get out of the shower, pat the incision dry. You may place a clean bandage over the incision site. Do not put any ointments or lotions on or around the incision.

Bracing
You may be fitted for a body brace to help protect your back while it is healing. Most often, a TLSO (Thoracic_Lumbar_Sacral_Orthosis) body brace is used. Braces may be worn anywhere from 2-3 months depending on the nature of your surgery. We will determine the total time required. If you wear a brace after surgery, you and your family members should practice brace application before discharge. You need to wear a T-shirt under your brace. Loose fitting clothing with elastic waists can be worn over your brace. You will be shown how to use the brace at the hospital. You do not need to sleep or shower in your brace.

Logrolling - how to turn as a unit
You will turn like this in the hospital. Your hips and shoulders need to stay in alignment and turn together as a unit without twisting. Placing a pillow between your knees will help maintain alignment and provide comfort when lying on your side.
Sleeping
To turn in bed, use the logrolling technique. To get out of bed engage your stomach muscles to protect your spine and turn onto your side. Push your body up with your arms while gently lowering both legs to the floor.

Standing Up
Scoot to the front of the chair and engage your abdominal muscles. Grasp the sides of the chair for support. Push up with your arms and use your legs to bring your body up. Keep your ears, shoulders, and hips in line when you stand and do not twist. If you stand for a long time, change your position frequently by shifting your weight from one foot to the other. Turn your whole body as a unit.

Sitting
Back up to the chair until you feel the chair on the back of your legs. Engage your abdominal muscles and bend at the hips keeping your back straight. Use your leg muscles to lower yourself onto the front of the chair then scoot back. Sitting puts more pressure on your spine than lying down or standing. For the first several weeks, avoid sitting for long periods as much as possible. When you sit, use a firm, upright chair and change positions frequently. Stand up whenever your back feels tired or begins to hurt.

Stairs
You may use stairs and should use a handrail when possible. Never use a walker on the stairs.

Walking
Walking is excellent exercise. Walking helps your cardiovascular and digestive systems, helps prevent blood clots and will increase/maintain muscle strength. A wheeled walker will be used in the hospital to improve your balance and you may be sent home with one. Once you are home, it is important to continue walking 6-8 times a day.

Driving
You may ride as a passenger whenever you feel comfortable. Ideally, you should sit in the front passenger seat slightly reclined and as far back as possible. The therapists at the hospital will help you mimic these movements before going home. Driving is generally permitted 4-6 weeks after surgery depending on the magnitude of your surgery, the medications you are taking and how you are feeling. You should be off narcotic pain medication and feel you can safely respond to all situations while driving.

Dressing
Due to postoperative bending restrictions, you may need to use aids for putting on underwear, pants, shoes and socks. It is easier to dress sitting in a supportive chair using adaptive equipment to reach your legs. Wear loose-fitting clothes and slip-on rubber-soled shoes for the first several weeks. You may want to use a long handled reacher, shoe horn, elastic shoe laces, or sock donner to help you.
Toileting
Low toilet seats can make regular toileting difficult and unsafe for patients who have had back surgery. Depending on the type, location and surrounding area of your toilet, you may use a temporary raised toilet seat and/or toilet rails. This will be discussed with you in the hospital.

Working in the Kitchen
Before surgery, store cooking utensils and dishes you use regularly on counters. Put foods you use most at waist level in the refrigerator or on a counter. Keep everything within easy reach. If your counters are low, work on a raised surface so you do not bend over.

Sexual Relations
You should generally wait until about six weeks after surgery to resume sexual activities. Lying on your back with mattress support is preferable. Side-lying positions may be more comfortable since you won’t bear any weight. Avoid arching your back. Avoid a lot of back motion or stress on your spine.

Preventing Setbacks
Increased pain for more than two hours after an activity usually means you’ve done too much too soon. Don’t just reach for your pain pills. Take pain as a warning sign to slow down and pay attention to your posture and movements. Try using ice for comfort. Make sure you’re bracing your abdominal muscles and keeping your ears, shoulders and hips in line to protect your spine.

Timeline Expectations
For the most part, we can only provide reasonable guidelines for your restrictions. You need to use common sense for many day to day activities. Avoid things that put pressure or stress on your spine. Remember, with all activities, to keep your spine in good alignment.

Your First Two Weeks
Expect to feel weak and tired when you first get home. You should feel a little stronger each day. Keep moving as much as you can without increased pain. Walking is the best and only exercise you will perform at this time. Some patients have reported that keeping a diary was helpful to them to record their progress, pain medication, activities, etc. We will see you in our office for your 2 week post-operative appointment.

Return to Work
Usually you are able to return to desk-type work around 4 to 6 weeks. We suggest half days the first 1-2 weeks. Anticipate 8-hour workdays by 6 weeks after surgery depending on the magnitude of surgery you had.

Six Weeks and After
By about the sixth week, your back is well on its way to healing. If you’re using correct movements and exercising regularly, you should feel better and do more each week. Continue to let pain be a warning to slow down.
Post-Op Activity Schedule Adult Long Fusion - (Not to the Sacrum)

This is a general time schedule for when you can return to normal activities. The type of surgery you have will influence your return to activities. Everyone is different so there may be some exceptions. Check with your doctor at each post-op visit to see what you can do.

<table>
<thead>
<tr>
<th>Activity</th>
<th>2 wks</th>
<th>1 mo</th>
<th>4 mos</th>
<th>6-7 mos</th>
<th>1 yr</th>
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</thead>
<tbody>
<tr>
<td>Shower</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Walking</td>
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<td></td>
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<tr>
<td>Lifting 5-10 lbs</td>
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<tr>
<td>Driving</td>
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<tr>
<td>School / work</td>
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<tr>
<td>Light upper extremity exercise</td>
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<td>Yes</td>
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<tr>
<td>Stationary bicycling</td>
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<td>Yes</td>
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<tr>
<td>Swimming – no diving</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Non-contact sports – no competitive play</td>
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<tr>
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<tr>
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<tr>
<td>Skating (ice and roller)</td>
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<td>Skiing (snow)</td>
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<tr>
<td>Skiing (water)</td>
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<td>Horseback riding (no jumping)</td>
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<td>Gymnastics</td>
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- Walking long distances is the best exercise. At one month post-op you should be walking at least one mile per day. At two months, you should walk at least two miles per day. At three months, you should walk at least three miles per day – this trend should continue.
- It is absolutely imperative that you keep your spine straight, erect and vertical the first year after surgery. It is critical to avoid any bending over at all. At one year, we may let you do a limited bending, but we will stress avoiding things that involve bending at the waist or hips at all for two years after surgery.
- At one year post-op, you will be started on an exercise program. It will involve aerobic conditioning and a certain component of weight lifting. Any weight lifting that either axially loads or flexes your spine is probably not a good idea.
Post-Op Activity Schedule Adult Long Fusion to the Sacrum

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<tr>
<td>Shooting free throws</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Gentle tennis</td>
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<td>No</td>
<td>No</td>
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<td>Yes</td>
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<tr>
<td>Volleyball</td>
<td>No</td>
<td>No</td>
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</tr>
<tr>
<td>Light jogging on even surface</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Competitive sports / contact sports</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tr>
<tr>
<td>Skating (ice and roller)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Skiing (snow)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Skiing (water)</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tr>
<tr>
<td>Bowling</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Horseback riding (no jumping)</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Golf</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Household duties (dusting, vacuuming, laundry, cooking meals, stairs)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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</tbody>
</table>

- Walking long distances is the best exercise. At one month post-op you should be walking at least one mile per day. At two months, you should walk at least two miles per day. At three months, you should walk at least three miles per day – this trend should continue.

- It is absolutely imperative that you keep your spine straight, erect and vertical the first year after surgery. It is critical to avoid any bending over at all. At one year, we may let you do a limited bending, but we will stress avoiding things that involve bending at the waist or hips at all for two years after surgery.

- At one year post-op, you will be started on an exercise program. It will involve aerobic conditioning and a certain component of weight lifting. Any weight lifting that either axially loads or flexes your spine is probably not a good idea.
Spine Rehabilitation Program
After some surgeries, rehabilitation is essential for a successful recovery. Rehab is goal oriented to meet the specific needs of each patient. Program goals are usually accomplished within 3 to 14 days; the length of stay is determined by the patient's progress.

What to Bring
- Long cotton t-shirts if you are to be braced
- Loose fitting washable slacks or shorts (preferably with an elastic waistline) and casual clothes
- Comfortable walking shoes with non-slip soles without heels

Program Goals
- Achieve satisfactory postoperative pain control.
- Teach and insure the patient's understanding and compliance with body mechanics and spine precautions during activities of daily living skills such as dressing, bathing, toileting, bed mobility, transferring and walking.
- Teach the patient and family to correctly apply a brace, if indicated. Instruct the family or designated caregiver on assisted personal care or mobility skills.
- Improve general strength and endurance so that the patient can return to his or her previous living arrangement either independently or with the help of the family.
- Assist with arrangement of post-discharge care that might include outpatient rehabilitation therapy, home care services, long-term care or skilled nursing facility placement.
- Provide the patient with appropriate adaptive equipment and assistive devices to optimize functional independence and insure safety.

What to Expect
A rehab program emphasizes progressive levels of the patient’s activity. You will be scheduled for daily occupational and physical therapy. A team of rehabilitation providers check on incisions, monitor pain control, evaluate progress and observe patients during therapy sessions. Any change in the patient's condition and progress are communicated to the patient's surgeon. Throughout rehab, the patient practices self-care skills needed at home.

The Social Worker/Case Manager makes all the necessary discharge arrangements to home based on recommendations from your doctor and care team. Prescribed equipment such as a wheelchair, walker or cane, a special bed or toileting/bathroom equipment is delivered to the patient prior to discharge. Your Spine Rehabilitation Team will facilitate your functional recovery and assist with a smooth transition back to your home.
Thank you for entrusting us with your spinal care. We take pride in our level of care and expertise. Surgery is a big decision for anyone - we hope this information helps ease your concerns and helps prepare you for what’s ahead with reasonable expectations.

Please remember to bring any additional questions to your pre-operative visit so we may address all concerns with you and your family. We are always available by phone at our office and have emergency after hours availability.