Physical Therapy After Lumbar Fusion Surgery...

Physical therapy is an extremely important part of your recovery after spinal surgery. This booklet, prepared by the therapists who specialize in working with spine patients, contains exercises and special instructions that will help you regain the ability to perform the tasks of daily living and return to an active lifestyle. Please read it carefully, then consult with your therapist if you have any questions.
How the spine works...

The spine serves many functions. It supports the skull and helps to protect internal organs and the spinal cord. The discs help absorb shock as you walk and run. The spine allows the trunk to bend and twist so that you may accomplish a wide variety of tasks.

The spine is made up of 33 vertebrae and four curves. There are 7 cervical, 12 thoracic, 5 lumbar, 5 sacral, and 4 coccyx vertebrae. (The sacral and coccyx vertebrae are fused into one bony mass which makes up the 4th curve). The individual vertebrae allow small amounts of movement in all directions. All of the vertebrae in each curve help contribute to large movements, such as bending over to touch your toes. When one vertebra moves, the vertebrae above and below it will begin to move also.

Since the sacral vertebrae are fused, no movement occurs between them. The lumbar level at which you are fused will no longer permit movement that used to occur at those vertebrae. If you continue to move now as you moved before your surgical fusion, the vertebrae below and above the fusion will be asked to make larger movements than they should. Eventually, this may cause hypermobility, or too much movement. The joint between the free vertebrae and the fused vertebrae may then become unstable. To prevent this instability, YOU MUST LEARN TO MOVE A LITTLE DIFFERENTLY THAN YOU DID BEFORE.

After your lumbar fusion surgery...

You should NOT:
- Excessively twist or bend your back to reach objects
- Lift greater than 5-10 pounds (for 6 weeks)
- Smoking of any kind, or any nicotine is prohibited
- Do not drive until permitted by your physician
- Do not perform heavy housework (ie: vacuum, cleaning windows, shoveling)
- Have sex until you are cleared after the 2nd post-operative visit (6 weeks)

You MAY:
- WALK several times during the day; increase your distance and speed!
- Wear your BRACE at all times as directed by your doctor
- Use STAIRS with a railing
- Perform EXERCISES prescribed by your therapist
Sleeping positions:
- On your back: a pillow may be used under your knees
- On your side: with a pillow between your legs

How to log roll:
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.

Standing up after surgery:
Slide or “scoot” to the edge of the chair. Place your hands on your thighs or armrest of the chair, and while keeping your back straight, use leg strength to get you upright. Do not bend too far forward.
To sit, reverse the process but make sure your legs are touching the chair before you sit.
Possible back braces after your surgery:

- You may or may not need a back brace after surgery
- Your surgeon will tell you when and how long you need to wear your brace
- Your brace will be given to you in the hospital
- Your physical therapist will teach you how to use it

**TLSo Brace:**

- This back brace gives you more rigid support for your thoracic, lumbar, and sacral spine.
- It restricts all movements of your back and trunk
- It will allow healing of bones and other tissues of your spine where you had surgery

**LSO Brace:**

- This back brace gives more rigid support for your lumbar and sacral spine
- It will allow healing of bones and other tissues of your spine where you had surgery

**Lumbar Support Brace:**

- This back brace gives gentle support to take pressure off your surgical area
- It serves as your “gentle reminder” to be cautious of your movements so your back can heal properly

Rules for any exercises after surgery:

- Perform exercises slowly
- The QUALITY of your movement is more important than the number of repetitions. It is better to perform 3 repetitions of good quality than to perform 30 repetitions with poor quality of movement.
- Don’t hold your breath during the exercise! Blow out through your mouth when performing the harder part of the activity
Why exercise?
After surgery, simple exercises improve blood circulation and help prevent complications after surgery. The following are exercises you will be expected to perform daily. Your therapist will instruct you in these exercises. You **must** do them independently throughout your hospital stay and even after discharge so you continue to heal properly.

Leg exercises to do in the hospital after surgery:
Start your exercise program laying down. These are also great warm-up activities!

1. **Heel raises**
   - Hang onto a stable surface
   - Slowly go up on your toes
   - Slowly lower back down
   - Repeat 10 times
2. **Hip Abduction**
   - Hang onto a stable surface
   - Raise your right leg out to the side
   - Keep your back STRAIGHT!
   - Repeat 10 times
   - Switch legs and complete on left

3. **Standing knee flexion**
   - Hang onto a stable surface
   - Bend your right knee
   - Slowly straighten your leg
   - Repeat 10 times
   - Switch legs and complete on left

4. **Squats**
   - Hang onto a stable surface
   - Bend both of your knees to squat
   - Keep your back straight
   - Don’t go too low! This shouldn’t cause pain
   - Repeat 10 times

**Body mechanics and posture:**
- Don’t slump when sitting!
- Don’t slouch when standing!
- Stand at a sink to brush teeth. When you spit, bend at the knees and hips to get closer.
- Use hands-on-thighs to stand up
- Remove scatter rugs in your home to prevent slips/trips
Lifting objects properly:

- Remember not to LIFT more than 5-10 pounds for 6 weeks after surgery!
- Keep your back straight, DON’T slouch!
- Squat to the object you need
- Keep the object close to your body
- Use smooth movements, don’t jerk your body
- If possible always PUSH rather than pull objects
- Do NOT hold your breath!

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

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

Squat down to reach into clothes dryer. Small items can be placed in a large portable mesh bag, and pulled out with an extended reacher.

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

Squat with knees apart to reach lower shelves and drawers.

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

Squat with knees apart to reach lower shelves and drawers.

Do NOT hold your breath!
We are here to help you!

- Call your doctor’s office immediately (518-697-6000) if you:

  - Have any drainage and/or odor from your incision
  - Have increased redness or swelling surrounding your surgical area
  - Have unexplained incisional pain
  - Have new or unfamiliar pain or weakness in your arms or legs
  - Have difficulty with urination or bowel movements
  - Have pain or numbness in the rectal, vaginal, or scrotal area
  - Have a fever of 101 degrees or greater
  - Fall or unexpectedly have to lower to the floor at home

Finally, we want to thank you for choosing The Spine Institute at Columbia Memorial Hospital. We appreciate the opportunity to participate in your care and look forward to helping you achieve your goals.

71 Prospect Ave Suite L40
Hudson, NY 12534
Phone (518) 697-6000
Fax (518) 697-5345