YOUR SPINAL SURGERY

Poudre Valley Hospital and The Orthopaedic Center of the Rockies are partners in the care of your spinal disorders. Your surgery may be performed at PVH or OCR based on considerations such as the severity of your surgery, your insurance, and your general health. This booklet is intended to answer some of your questions and provide general guidelines on your care. However, your physician may give you different instructions; you should always follow those. We are always open to any questions or comments you may have.

HOW THE SPINE WORKS

The spine, or the spinal column, is the central pathway for the spinal cord. The spine serves as a mechanical connection between the arms and legs. Muscles are attached to all levels of the spine. These muscles help maintain proper posture and spinal alignment.

Composed of a large strand of nerve tissue, the spinal cord extends from the brain down along the spine. At each level of the spine, individual nerves branch off from the spinal cord. These nerves provide the brain with information about the body, and allow the brain to control the movement and function of the body.

The spine is divided into four main sections:

- the cervical spine or neck is composed of seven vertebrae. Nerves in this area generally control the arms and hands.
• the thoracic spine or middle back is composed of twelve vertebrae. Nerves in this area generally control the region of the chest and abdomen. This region isn’t injured very often because it is protected by the rib cage.

• the lumbar spine is composed of five vertebrae. Nerves in this region generally control the legs and feet.

• the sacrum is the lowest part of the spine. The sacrum serves as a connection between the spine and the pelvis. Nerves in this area generally control the bowel and bladder.

*The spine is composed of bones called vertebrae and cartilage segments called discs. Each vertebra is made up of several elements:*

• the vertebral body is the round core of the spinal column

• the lamina is the back covering of the spine

• the transverse processes are the wings on the sides of the spine where muscles attach to the spine

• the spinous processes are the bumps you can feel along your back

• the facet joints are the joints along the back side of the spine

Between each pair of vertebrae is a shock-absorbing disc made of cartilage. Each disc has a spongy central core surrounded by a tough outer ring. With time or with trauma the spine can become injured. Injuries of
the spine are usually related to damage to the disc. This causes pressure on the spinal nerves, which in turn causes pain or weakness in the arms, legs, or spine.

DIAGNOSING SPINAL PROBLEMS

Spinal problems usually show up as pain in the back, arms, or legs. Your physician asks exactly where you have the pain, how long you’ve had it, and what makes it better or worse. X-rays are usually taken. Depending on your symptoms, a magnetic resonance imaging (MRI) scan may be done. The MRI gives a much better picture of the discs and spinal nerves. Sometimes a myelogram with a CT scan is done. This also gives a good picture of any pressure on the nerves. Occasionally, discography is performed to assess whether a degenerated disc is the source of your back pain. During this test a dye is injected into the disc through a small needle. X-rays and a CT are then taken of the disc.

COMMON SPINAL PROBLEMS

Disc Herniation

A disc herniation occurs when the center of the disc bulges through the outer layer of the disc and puts pressure on the spinal nerves. Thoracic disc
herniations are much less common than herniations in the cervical or lumbar spine. This is due to the stabilizing effect the rib cage has on the thoracic spine.

**Scoliosis**

Scoliosis is an abnormal curvature of the spine. This condition can lead to increased back pain and pressure on the spinal nerves.

**Kyphosis**

Thoracic kyphosis refers to the forward curve of this section of the spine. In some cases this curvature is excessive, leading to pain and neurologic symptoms. This may be due to the way the spine developed (Scheuermann’s Kyphosis) or due to trauma or osteoporosis. Rarely does this condition require surgery.

**NON-SURGICAL TREATMENT OF SPINAL DISORDERS**

Most spinal problems can be treated without surgery. Treatments include medicines, physical therapy, chiropractic manipulation, massage therapy, acupuncture, and spinal injections.

Physical therapy increases muscle strength and improves spinal alignment. Steroid injections are given around the spinal nerves to control pain and help diagnose the source of pain.

Generally, non-operative methods are tried prior to considering surgery.
GETTING READY FOR SURGERY

Once the decision has been made to proceed with surgery, your pre-operative work up begins. You may be asked to see your regular doctor to make sure you can tolerate the stress of surgery. In addition, you meet with your surgeon to review your medical history, review the surgery, and sign the consent forms for surgery. You may need to have pre-operative testing such as blood tests, an electrocardiogram (EKG), and chest x-ray.

An appointment is scheduled with a pre-admission nurse before surgery. You are asked questions about your medical history and allergies. Bring a list of all medicines you are currently taking so the nurse can review them with you. Be sure to include your dosage – both the strength and the number of times you take that medicine.

You are instructed where and at what time to arrive. Follow closely all the pre-admission instructions given to you. Failure to do so could delay your surgery.

Your doctor may have you fitted for a back brace that you will wear after surgery.

When packing for your stay, please bring a cotton tee shirt, robe, and non-skid shoes.

Notes:

- Stop taking aspirin and all other anti-inflammatory medicines (ibuprofen, naprosyn,
etc.) at least one week prior to your surgery.

- Do not eat or drink anything for at least eight hours before surgery.

- If you smoke, stop as far in advance of surgery as possible. Smoking can delay or interfere with bone healing. Surgery may be the perfect excuse to stop smoking all together.

- Take a shower the night before surgery using the special soap that has been provided to you.

THE DAY OF SURGERY

You are asked to report to the Surgical Admissions area one to two hours before your operation. Once again, you should not eat or drink anything for at least eight hours prior to surgery. An intravenous catheter is placed in a vein. You meet the anesthesiologist to review your medical history. You are given an antibiotic through the IV to help prevent infection. The surgical site may be shaved, and then cleansed with an antibacterial soap. You may be given a sedative to help you relax.

*Your family can wait with you in the preoperative area.*

Once you are taken to the operating room, your family is directed to the waiting room. Your surgeon comes out to talk to your family once the operation is completed.

After the surgery, you are taken to the Post Anesthesia Care Unit (PACU) where nurses monitor you closely while you recover from anesthetic. You usually stay in
PACU for about one hour. Then you are transferred to your room, where you can meet your family.

**On the Surgical Intensive Care unit:**
- If your surgery involved going through your chest, you may need to go to ICU after the operation.
- You may have a tube in your chest to keep your lungs inflated. This will be removed 2-3 days after surgery.

**On the Orthopedic unit:**
- The nurses check your vital signs, the strength and sensation in your legs or arms and your back dressing.
- Pain medicine is available if you need it. Please ask the nurse.
- The nurses help you change position every two hours.
- Your nurses have you cough, breathe deeply, and perform other lung exercises. Breathing exercises are very important in the first few days after surgery.
- Compression stockings and pumps are placed on your legs to help prevent blood clots.
- It is important to move your legs and feet often.

**GENERAL INFORMATION**
- A tube may be inserted into your bladder to drain your urine. It is usually removed in 2-3 days.
- The surgical area may have a drain tube to allow fluids to escape. The tube is removed in 1-2 days.
• You may have ice chips and sips of water. Your first meal is liquid. Regular meals are usually served the next day.

• Gas pain and constipation are common after surgery. Increasing your time out of bed and walking helps. Laxatives, a high-fiber diet, and drinking plenty of fluids also help. If you need a laxative during your hospital stay, please notify your nurse.

PAIN CONTROL

It is common to have some pain after surgery. Pain is not eliminated but can be reduced to a slight to moderate level. Our goal is to make your stay and recovery as comfortable as possible.

Everyone experiences pain differently. The nurse will frequently ask you to rate your pain from 1 - 10 based on the scale below. This helps us determine the proper type and amount of pain medicine to use.

Pain is controlled best when medicine is taken before the pain becomes severe. Be sure to tell your nurse when you are having pain.
YOUR HOSPITAL STAY

Hospital stays are generally getting shorter due to advances in surgery and medicines. The length of your hospital stay varies from one to four days, depending on the type of surgery.

Emphasis is placed on your rehabilitation. Nurses and therapists work with you to get you up. This generally starts the evening of your surgery day.

REHABILITATION

Your first activity is to stand by your bed for a few minutes. You then progress to standing and walking.

Physical therapy starts the first day after surgery unless otherwise ordered by your doctor. The therapist and nurses teach you correct positions, movement restrictions and gentle exercises.

Your doctor may order occupational therapy (O.T.) services while you are in the hospital. An occupational therapist helps you learn to do your normal daily activities, using safety precautions, adaptive equipment and/or techniques.

IMPORTANT POINTS

- AVOID TWISTING BACK.

Log roll to the side by bending your knees and keeping your feet on the bed. Roll to your side, moving your hips and shoulders together.

See illustration at left – LOG ROLL
• **AVOID BENDING AT THE WAIST** when standing up. Bend knees, keep your back straight, and push yourself into an upright position.

• **GETTING OUT OF BED.**
  Roll onto your side. Lower your legs off the edge of the bed, while pushing your upper body onto your elbow, then up to sit. Try to make this all one fluid motion.

*See illustration at right – SIDE LYING TO SITTING*

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**LEAVING THE HOSPITAL**

**Making Plans**

Discharge Planning professionals help arrange for home care and/or equipment if needed. If you live a distance from the hospital and do not believe you are ready for travel at the time of your discharge, you may ask a discharge planner to help you find in-town lodging.

Some people may require additional time in a rehabilitation facility prior to returning home.

It is your responsibility to plan ahead for your discharge to go home. You may need:

*Planning ahead makes your discharge from the hospital easier and prepares you and your family to handle your needs at home.*

• Transportation on your discharge day. We recommend having someone available to pick you up by 11 a.m..
• Someone to stay with you at home.
• Someone to prepare your meals.
• Someone to help with household chores

DIET:
Follow your regular diet you had before surgery unless your doctor says otherwise.

BOWELS:
Decreased activity and the use of pain medicine may cause constipation. Drink more water and eat foods high in fiber such as bran, whole wheat products, vegetables and fruits. Take a laxative or stool softener.

PAIN CONTROL:
Take pain medication as prescribed by your doctor. To avoid stomach upset, take your pain medicine with food. Once you are comfortable on pain medicines by mouth, are able to eat regular food, and can get around on your own, you are ready to leave the hospital.

BRACES:
Wear your cervical collar at all times. You may take it off to shower, but you should avoid moving your neck.

TED HOSE:
Wear your compression stockings until you are able to move about frequently. Generally they should be worn for two weeks after surgery. Have someone help you put your stockings on and take them off.
DRIVING:
You should limit the time you spend in a car for the first few weeks after surgery. You are generally not safe to drive until you are out of your cervical collar, are off pain medicines, and can safely move your arms and legs.

COMMON SPINAL OPERATIONS AND POST-OPERATIVE CARE
The following are some of the most commonly performed operations on the thoracic spine. Your particular surgery may be a modification of one of the following or may not be included below.

*Posterior Thoracic Fusion*
This surgery is performed to correct deformities in the spine. The deformity is corrected by attaching metal hooks, screws, and rods to correct curvatures in the spine. This surgery is often combined with surgery from the front of the spine.

*Anterior Thoracic Surgery*
This surgery is rarely needed due to the stability of the thoracic spine. Surgery is performed for spinal infections and tumors, or in the unusual case of a thoracic disc herniation. The surgery involves entering the chest cavity to reach the spine. In some cases this may be done using small incisions and a camera. This
surgery is often combined with a fusion from the front or the back of the spine.

*Kyphoplasty*

This surgery is performed for people who have a painful compression fracture of a vertebral body as a result of osteoporosis. The surgery involves placing balloons into the vertebral body to help restore the height of the vertebrae. The balloons are then removed and the vertebrae are filled with bone cement. The hospital stay is usually one night.

**GENERAL INSTRUCTIONS AND RESTRICTIONS**

- Hospital stay is usually three to four days
- If a fusion is performed you will usually be fitted with a removable body jacket that should be worn for six to eight weeks after surgery.
- The brace can be removed to shower. It does not need to be worn while you are in bed.
- If surgery was performed from the front side of the spine, a chest drain will be left in place for two to three days after surgery to prevent the lungs from collapsing.
- The surgical incision is usually closed with dissolvable sutures and surgical tapes or staples. You may take a shower two days after surgery. Pat the wound dry after your shower and then cover the wound with gauze and tape. Two weeks after
surgery the surgical tapes can be removed and the wound left uncovered.

- If a fusion was performed, you are asked to restrict your activity until there are good signs of bone healing on x-ray examination.

ACTIVITIES

- You may resume sexual activity but choose a dependent position.
- Walking helps you regain your strength. Walk every day, increasing your distance if you can.
- Avoid sitting for long periods of time. Do not lift, pull, push (especially vacuum cleaning), bend or take long car rides. Climb stairs in moderation.
- Pick up objects correctly – bend at knees, keeping your back straight.
- Change your position often and maintain good posture.
- Sleep on whatever surface is most comfortable. Placing a pillow under your knees helps relax the back muscles.
- Follow your doctor’s guidelines for exercise and other activities.
- Plan rest periods.

Call your doctor’s office before discharge to schedule your follow-up appointment.
Notify your doctor if you have:

- Numbness, tingling, or a change in muscle strength in your legs.
- Chest pain or shortness of breath.
- Increased pain.
- Drainage from your incision.
- Chills or a temperature above 101°F.

If you have any questions, please ask your doctor or nurse.