

PREPARATION AND RECOVERY

A comprehensive guide to your spine surgery journey



 **Bozeman Health**
Spine + Joint Institute

EXCELLENCE IN ORTHOPEDIC SURGERY
SERVING SOUTHWEST MONTANA & BEYOND

WELCOME

We value your commitment to improve your health. Thank you for choosing Bozeman Health Spine + Joint Institute to help you reach that goal. Through high quality compassionate care, research, and surgical advances, we can help revitalize your quality of life.

Our local orthopedic surgeons have worked closely with Bozeman Health medical staff to develop a spine surgery program that shortens your post-operative stay, improves the quality of your orthopedic care, and makes your entire experience more enjoyable. Bringing together our combined expertise, we have created a program that is unparalleled, with your satisfaction as our top priority.

Our goal is to treat each patient like family. With comprehensive patient education and individually tailored care, our program is designed to provide the information, care, and support you need every step of the way to achieve your ideal experience.

This guide will help you understand ways you can prepare for surgery and improve your recovery afterward. Please use the included checklists to help remind you what you need to do as your surgery date gets closer.

Your education and participation are essential to ensuring you have an outstanding experience and the best possible outcome, so please read all of the information in this booklet. Our staff is available to help you with questions and concerns. We look forward to being part of your spine surgery experience!

Sincerely,
Your Bozeman Health Spine + Joint Institute Team

Your surgery is scheduled for:

Important Phone Numbers

Bozeman Health Deaconess Regional Medical Center | 406-414-5000

Emergency | 911

Pre-Anesthesia Clinic (PAC) | 406-414-4280

Spine + Joint Institute Nurse Navigator | 406-579-2799

Patient Financial Services | 406-414-1015

Bridger Orthopedic | 406-587-0122

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UNDERSTANDING YOUR SPINE SURGERY

ANATOMY OF THE SPINE

Spine surgery is an operation on your back or neck. The bones of the spine protect the spinal cord. The spinal cord sends and receives messages between the brain and the rest of the body.

THE VERTEBRAE

Your spine is made up of small bones, called vertebrae, which are stacked on top of one another and create the natural curves of your back. These bones connect to create a canal that protects the spinal cord and nerve roots.

- **Cervical | Neck**
The cervical spine consists of 7 vertebrae (C1-C7) and provides support for the weight of the head.
- **Thoracic | Upper + middle back**
The thoracic spine consists of 12 vertebrae (T1 - T12) and provides stabilization and support for your rib cage protecting your heart and lungs.
- **Lumbar | Lower back**
The lumbar spine consists of 5 vertebrae (L1-L5).
- **Sacrum + Coccyx**
The sacrum and coccyx support weight-bearing and stabilization to this region of the spinal column.

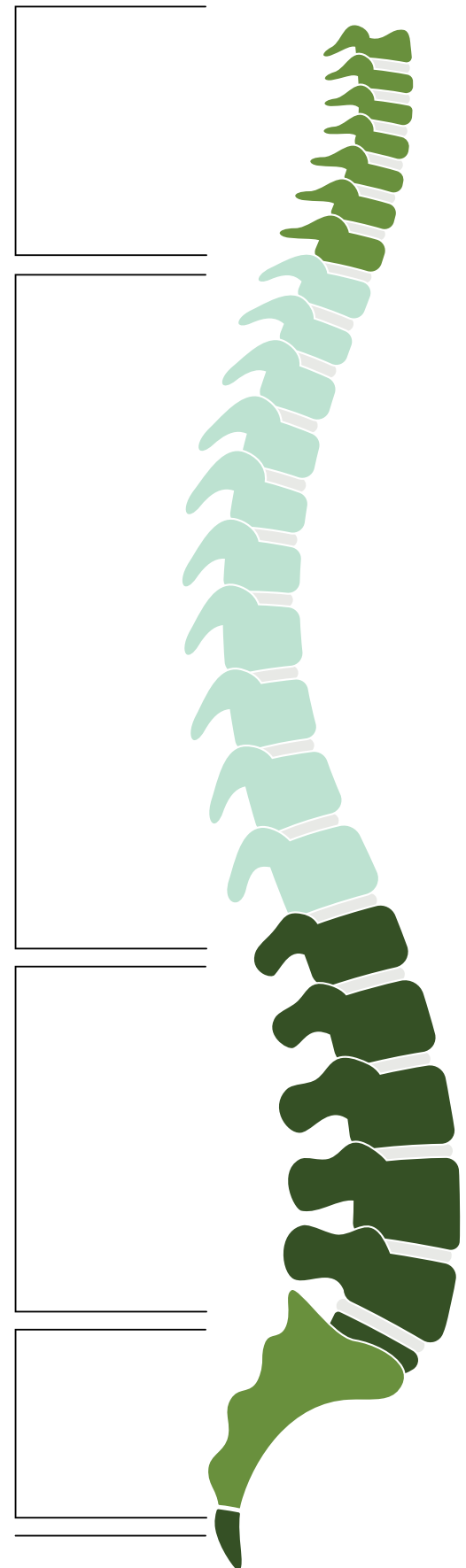
Cervical

Thoracic

Lumbar

Sacrum

Coccyx



INTERVERTEBRAL DISCS

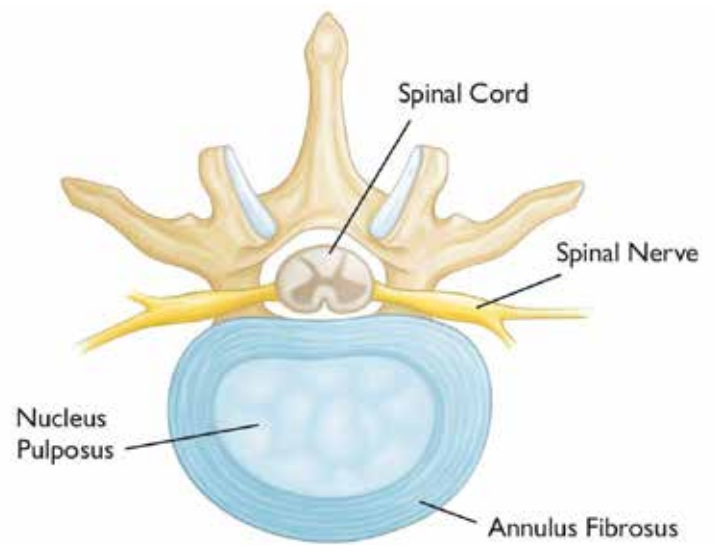
Intervertebral disks sit in between the vertebrae. They are flat and round, and about a half inch thick. Intervertebral disks are made up of two components:

- **Nucleus Pulposus**

The nucleus pulposus is jelly-like and makes up the center of the disk. The jelly is partly made of water and gives the disk flexibility and strength.

- **Annulus Fibrosus**

This is the flexible outer ring of the disk. It is made up of several layers, similar to elastic bands.



SPINAL CORD & NERVES

The spinal cord extends from the skull to your lower back and travels through the middle part of each stacked vertebra, called the central canal. Nerves branch out from the spinal cord through openings in the vertebrae and carry messages between the brain and muscles.

MUSCLES & LIGAMENTS

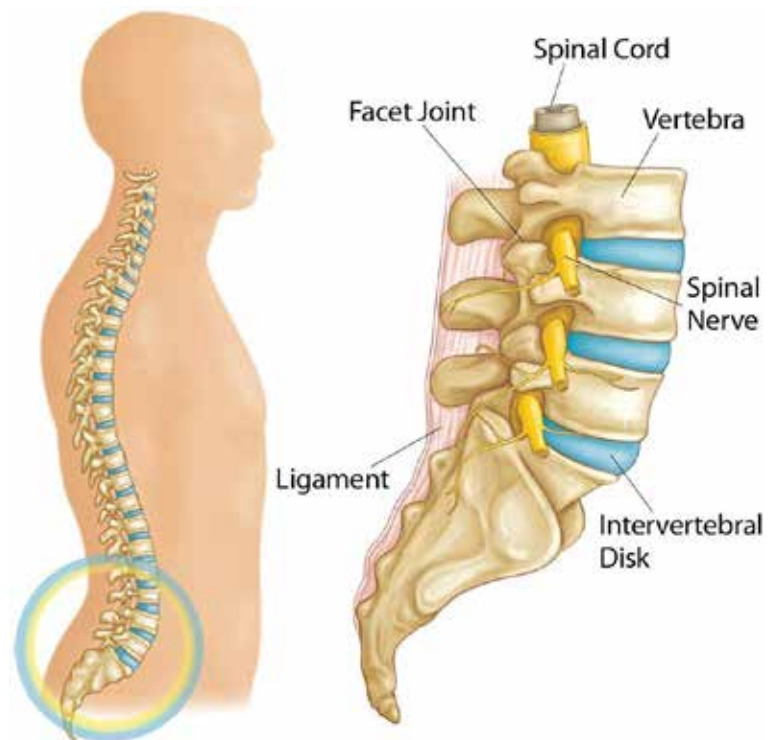
These provide support and stability for your spine and upper body. Strong ligaments connect your vertebrae and help keep the spinal column in position.

FACET JOINTS

Between the back of the vertebrae are small joints that also help your spine move. These facet joints have a cartilage surface, very much like a hip or a knee joint does. The facet joints are important for allowing rotation of the spine but may develop arthritis and become a source for low back or neck pain

SACROILIAC JOINTS

The sacroiliac joints connect the hip bones to the sacrum. They function to support the weight of the upper body and absorb shock between the upper body, pelvis, and legs.



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COMMON SPINE DISORDERS

- Herniated/ruptured disc
- Spinal stenosis
- Arthritis
- Fractured (broken) vertebrae
- Spondylolisthesis
- Scoliosis

COMMON TYPES OF SPINE SURGERY

Your surgeon will explain your specific surgery to you.

Common spine surgeries include:

- **Discectomy**

Discectomy is a surgery to remove all or damaged portions of the intervertebral disc that may be pressing on the spinal cord or nerve root causing pain, weakness, or numbness.

- **Laminectomy**

A laminectomy is a type of surgery that removes part of the vertebral bone called the lamina to create space and relieve pressure on the spinal cord or nerves.

- **Fusion**

Spinal fusion surgery permanently connects (fuses) two or more vertebrae. This procedure is used to correct problems such as painful motion and restores stability to your spine.



SPINE SURGERY JOURNEY

1. You Decide to Have Surgery

Surgeon:
Procedure:
Date:

2. Your Surgery Nurse Navigator

Name:
Phone:

3. Pre-Surgery Optimization

**Bozeman Health Deaconess Regional
Medical Center**
Pre-Anesthesia Clinic
Entrance 8, 2nd Floor

Date: Time:

- Physical exam
- Testing (EKG, labs, etc.)
- Discuss anesthesia
- Make discharge plan

4. Spine Surgery Class

Date: Time:

Call 406-414-4280 to schedule.

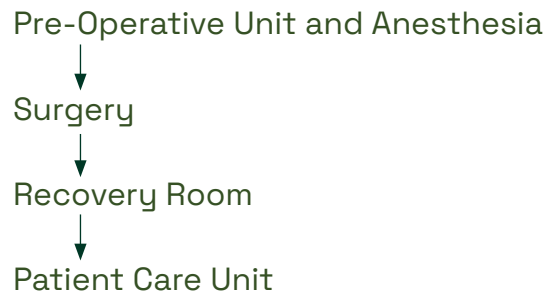
5. Day Before Surgery

Call from Nurse Navigator with check in time for surgery and instructions for eating and drinking.

Surgery Check-In Time:

**Bozeman Health
Deaconess Regional Medical Center**
Surgical Services
Entrance 8, 2nd Floor

6. Day of Surgery



7. Discharge from Hospital (see page 26)

- Home and outpatient recovery
- OR -
- Home with home health services

8. Follow-up Appointments

SURGEON

Date: Time:

POST-OPERATIVE PHYSICAL THERAPY

Date: Time:



Congratulations!

You have completed your
spine surgery journey!

PREPARING FOR SURGERY

Please read this entire booklet and bring to all appointments including day of surgery.

To Do Checklist

Contact insurance company about surgery and rehabilitation coverage.

Designate a coach.

Your spine surgery “coach” can be a family member, friend, or other individual who will help you navigate through your spine surgery journey. Ideally, your coach will accompany you to your Pre-Anesthesia Clinic appointment, Spine Surgery Class, be available during your stay in the hospital, and serve as your primary assistant when you return home.

If your personal coach is traveling from out of state, plan for them to arrive 3-4 days after surgery to be available to help at home. After surgery, this person will serve as your primary assistant when you return home to help with applying your brace, bathing/dressing, moving around safely, and chores/errands.

Compile a complete list of your current medicines, including prescriptions and over-the-counter medications, dosages, and times taken. Be sure to list any medications you are allergic to. (see page 12)

Pre-Anesthesia Clinic Appointment

You will be asked to complete a pre-operative medical optimization with the Pre-Anesthesia Clinic (PAC) at Bozeman Health. The pre-surgical clearance provides the surgeon, anesthesiologist, and nursing staff with important information that assists in the management of your health care.

Fill out Advance Directive and/or POLST forms

If you have not yet started this process, please speak with your primary care provider. Bring the completed copy to Pre-Anesthesia Clinic to scan into your chart for surgery.

Spine Surgery Class

Your surgeon requires that you attend a one hour class in preparation for your upcoming surgery. This free class is led by a nurse navigator and includes information on how to prepare for surgery, what to expect during your stay in the hospital, and what to anticipate in the recovery process. Our goal is to help decrease anxiety related to surgery and improve your surgery outcome by sharing ways that you can be an active participant in the preparation and recovery process.

Please plan to attend 2 - 4 weeks before surgery. Offered twice monthly, Call 406-414-4280 for more information or to sign up.

Prepare your home. (see page 9)

Obtain any equipment necessary for recovery at home. (see pages 33 - 35)

Pack hospital bag.

If applicable, pack glasses, dentures, hearing aids and CPAP machine.

Arrange for a ride to and from the hospital, and for help at home after surgery.

Pre-surgery bathing the two days before and the day of surgery, unless otherwise instructed. (see page 10)

Preparing Your Home

Here are some ideas that will assist in making your home safe.

- Purchase a non-slip bathmat for inside your tub/shower.
- Check every room for tripping hazards. Remove throw rugs and secure electrical cords out of your way.
- Determine what items from dressers, cabinets, and shelves you will need immediately after returning home. Any items you use often should be moved to counter height to avoid excessive bending or reaching.
- Plan on using a cordless phone or cell phone. They can be tucked away inside a pocket, carried easily, or set within reach.
- Make sure stairs have handrails that are securely fastened to the wall.
- If you have pets, you may want to consider boarding them for a few days after your return home.
- A chair which has a firm back and arm rests is recommended during your recovery. A chair that sits higher will help you stand more easily. Chairs with wheels should not be used under any circumstances.
- To minimize cooking, prepare meals in advance and freeze them. Alternatively, you can purchase prepared meals for convenience.
- Install night lights in bathrooms, bedrooms, and hallways.
- Do laundry ahead of time and put clean linens on your bed.
- Arrange for someone to collect your newspaper and mail.



Your safety is our primary concern. We recommend that your family member or friend stay with you after your surgery until you can perform activities of daily living independently and safely.

Infection Prevention and Preparing Your Skin

DENTAL CARE

The American Dental Association suggests brushing your teeth twice a day with a soft-bristled brush and rinsing with mouthwash. Flossing daily can help reduce the bacteria between teeth where your brush can't reach. Be sure to brush your teeth, floss, and rinse with mouthwash everyday - even the morning of surgery. All dental work, including cleaning, must be completed at least SIX weeks prior to your surgery. You must call your surgeon's office if any dental problems arise before your scheduled surgery date.

ILLNESS

If you become ill with a fever, cough, sore throat, flu, or any other illness, please contact your surgeon's office.

SHAVING

It is very important that you do not shave or use any hair removal products anywhere near the surgical area for THREE days prior to surgery. Studies show an increased risk of surgical site infection associated with shaving. This is attributed to the microscopic cuts in the skin that allow bacteria to enter. It is ok to shave your face.

FINGERNAIL POLISH

You should remove all fingernail polish as it can harbor bacteria.

SKIN

Our skin is the largest organ of our body. One of its many functions is to prevent dirt, bacteria, and viruses from getting inside our body. All of us have millions of microorganisms on our skin, and if our skin is cut, microorganisms are able to get in and cause an infection. Broken skin such as cuts, burns, or rashes should be reported to your surgical team. Because incisions will be made through your skin for surgery, you are at a higher risk for infection.

Preparing your skin before surgery can help reduce the risk of a surgical site infection by removing the bacteria that is normally on our skin or found in the environment. Chlorhexidine gluconate (CHG) is a special soap used before surgery. Hibiclens or DYNA- HEX – are both CHG soaps.

Please follow the instructions on this page to use it.

*HOW DO I BATHE OR SHOWER WITH CHG SOAP?

Plan to shower using CHG two nights before, the night before, and the morning of surgery.

1. If you have any open skin areas at the time of using CHG, ask your surgeon before using it.
2. Use regular shampoo to wash your hair. Wash your face and genital area with your normal soap.
3. Rinse hair, face, and body thoroughly to remove any shampoo or soap residue.
4. Apply CHG directly to your skin or on a clean, wet wash cloth and wash gently. If showering, move away from the water when applying CHG to avoid rinsing it too soon. Rinse thoroughly with warm water once applied. **USE ONLY AS DIRECTED.** *See CHG label for full information and precautions.
5. Do not use regular soap after applying and rinsing CHG.
6. Dry your skin with a clean towel.
7. **DO NOT** apply any lotions, creams, perfumes, makeup, or other products to your skin.
8. Put on clean pajamas or clothes after bathing. If you have pets, please do not allow them to sleep in bed with you the night before your surgery.



Quit Smoking

You will be required to quit smoking and chewing tobacco before undergoing spine surgery.

Smoking can increase your risk of surgical complications, including:

- Increased risk of delayed or incomplete bone fusion
- Increased risk of wound complications such as slow healing, infections, cell and tissue death, and hernias at the wound site
- Increased risk of lung problems such as pneumonia
- Increase risk of heart problems such as high blood pressure, heart rate and risk of irregular heart beat (arrhythmias)
- Decreased oxygen in your blood
- Increased risk of blood clots

RESOURCES TO HELP QUIT SMOKING

AMERICAN LUNG ASSOCIATION

- www.lungusa.org

CENTER OF DISEASE CONTROL

- www.cdc.gov/tobacco/quit_smoking

NATIONAL CANCER INSTITUTE TOBACCO LINE

- 1-877-448-7848 (also in Spanish)

AMERICAN SOCIETY OF ANESTHESIOLOGISTS

- www.asahq.org/stopsmoking/provider

SMOKEFREE.GOV

- teen.smokefree.gov
- espanol.smokefree.gov
- women.smokefree.gov



MY MEDICATIONS

PLEASE DO NOT BRING YOUR MEDICATIONS FROM HOME UNLESS YOU ARE SPECIFICALLY INSTRUCTED TO DO SO.

Your physician will prescribe any necessary medication from the hospital pharmacy. If you do bring your medications to the hospital, they will be sent home or stored in the hospital pharmacy for you until your discharge.

MEDICATIONS YOU MAY AND MAY NOT TAKE PRIOR TO SURGERY

During your Pre-Anesthesia Clinic appointment, a nurse will review which medications to take the morning of surgery.

If you have questions about which medications to take before surgery, please call the Pre-Anesthesia Clinic at 406-414-4280.



If you have problems writing or typing your medication list, you can use a smartphone to take pictures of any medications you take.

You can also ask your pharmacist to print out a list of your prescription medications.

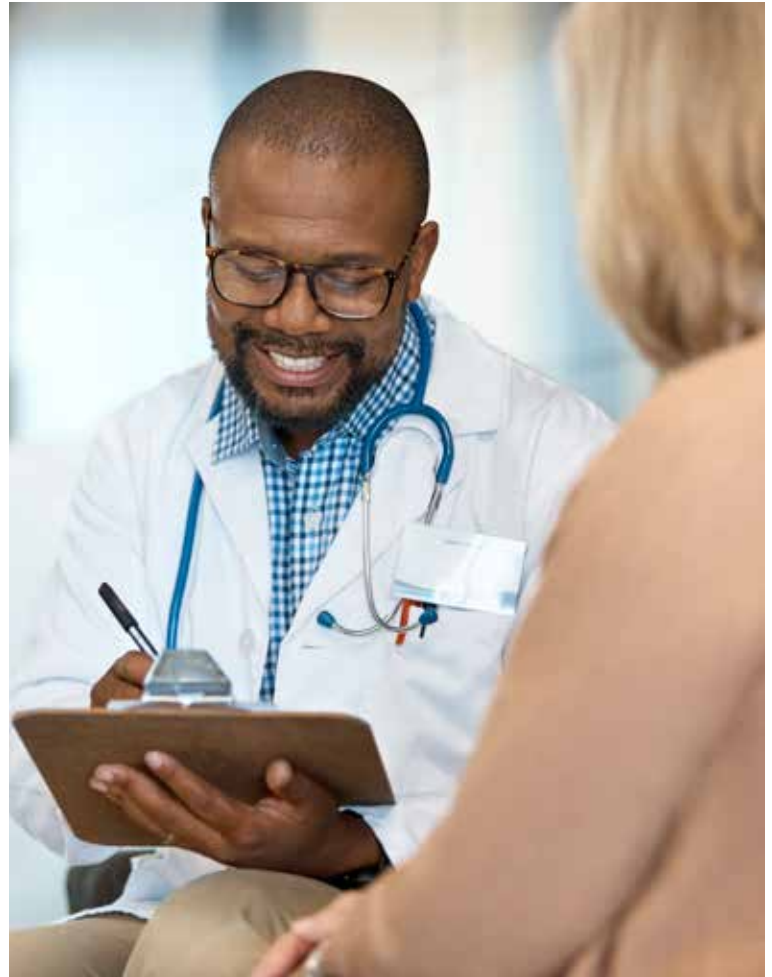
DAY OF SURGERY

CHECK-IN

You will be contacted by Bozeman Health one working day before surgery to inform you of your check in time and eating and drinking instructions. You may continue to drink clear liquids (water, clear sports drink) to stay hydrated even once you have stopped eating solid food. If you do not follow these instructions, your surgery may be cancelled. Check in times are based on patient's specific medical needs, age, and type of surgery. If you have any questions or concerns regarding your scheduled time, please call 406-414-1600.

DAY OF SURGERY

- Shower, using the CHG soap, before coming to the hospital. (see page 10)
- Wear clean, comfortable clothes.
- Do not wear any cream or lotion on the surgical area.
- Do not eat or drink anything (other than water or clear sports drink) including candy, cough drops, gum, and chewing tobacco/smoking.
- Take any medications as instructed at your Pre-Anesthesia Clinic appointment with your 20 ounces of water or clear sports drink. If you do not remember which medications to take, please call the Pre-Anesthesia Clinic at 406-414-4280.
- Bring this booklet with you.
- Bring a complete list of your current medicines, including prescriptions and over-the-counter, dosages, and times taken. Be sure to list any medications you are allergic to.
- Bring a bag with personal items including toiletries.
- Please leave all valuables at home as the hospital cannot be responsible for these items.



ARRIVING AT BOZEMAN HEALTH

When you arrive, park in designated patient parking areas. For your convenience, a map and driving directions are provided at the back of this guide.

Enter Highland Park Building 4, Entrance 8. Go to perioperative services on the second floor. In the perioperative services registration area you will be greeted and checked in for your surgery.



SURGERY PREPARATION

After you check in at registration, you will be directed to the surgical preparation area. A wristband will be applied at this time. If you have any allergies, an additional wristband will be applied. It is important for you to verify that all information on your identification bracelet is correct.

You will be asked to change into a surgical gown. Your clothes and any items you brought with you will be placed in a locker.

Just before surgery, a nurse will review your medical records, take your vital signs, perform a brief physical exam, clean the surgical site, and start an IV. The IV allows medication and fluids to flow directly into your bloodstream. We utilize preoperative antibiotics to reduce the risk of infection.

Your orthopedic surgeon and the anesthesiologist will visit you in the pre-op area prior to surgery. Your anesthesiologist will review your chart, discuss your anesthesia, and answer any questions.

FAMILY WAITING

Your family member or friend will be able to stay with you until you are ready to be transported to the operating room. At this point, they will be directed to a family waiting area where they will wait while you have your surgery. Once your spine surgery is complete, a member of the surgical team will contact your family member or friend. At this point, they will be able to speak with your surgeon to discuss your procedure.

THE OPERATING ROOM

Inside the operating room, you will be cared for by a team of physicians, physician assistants, nurses, and skilled technicians. You can expect to have compression sleeves placed on your calves in the operating room. These sleeves will squeeze your legs at regular intervals to circulate blood and to help prevent clotting. The OR is often cold and bright, but you will be provided with a blanket to keep you warm throughout the procedure. When you are settled on the operating bed, the anesthesiologist will make you comfortable for the procedure. The total time required for surgery will be different from patient to patient depending on the complexity of your procedure.

PAIN MANAGEMENT

WHAT TO EXPECT

It is important to control your pain following surgery. When you are in a lot of pain, you will be less likely to do the things you need for recovery such as eating, drinking, walking, and taking deep breaths.

The amount of pain and discomfort you experience depends on multiple factors. Your physicians and nurses will do everything possible to relieve your pain and discomfort using medications and other techniques.

During the first day and over the next few days you will start taking pain medications by mouth. Arrange to take your pain pills approximately 30 minutes prior to doing your exercises to help control the soreness that often accompanies activity in the first few days after surgery.

You can help us by letting your health care team know your pain rating. Controlling pain will help ensure you continue to play an active role in your recovery.

PAIN MEDICATION

Our goal is for patients to be opioid free after two months following surgery. Your surgeon will not refill your opioid medications after six weeks without an in-person visit. Our care team will work to reduce your pain and therefore reduce the need for prolonged postoperative opioid pain medications.

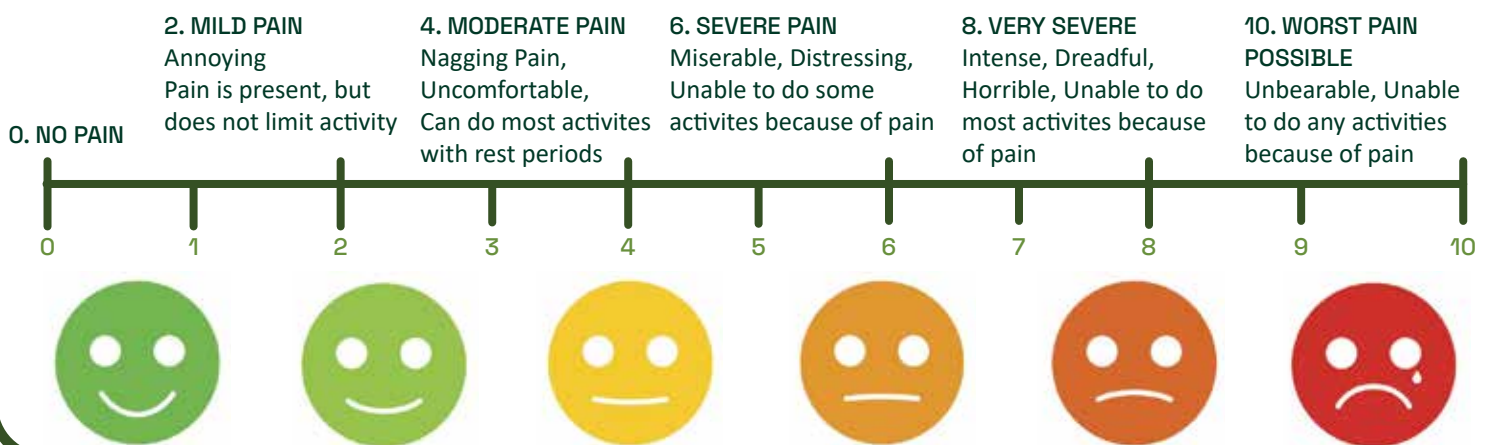
Be sure to take your pain medications by mouth with food. You may not drink alcohol or drive while taking prescribed pain medication.

SIDE EFFECTS OF OPIOIDS

- **Addiction**—patients taking frequent pain medication after three months have a 50% increased chance of addiction at two years following surgery.
- **Constipation**—drink plenty of water and eat high-fiber foods (fruits and whole grains). You will be instructed to take an over the counter stool softener. Exercise and walking also help prevent constipation. If you do not have a bowel movement within two days, there are other medications that can assist with this; please ask.
- **Nausea or vomiting**—there are medications to help control or prevent this.
- **Drowsiness**—this usually goes away in a few days after you get accustomed to the medication. Report severe drowsiness or confusion.
- **Itching**—may occur with certain medications; notify your nurse or doctor if this occurs.

PAIN ASSESSMENT SCALE

Please use this scale to indicate the level of pain at any given time.



RECOVERY IN THE HOSPITAL

POST OPERATION

After surgery, you will be transported to an area called the Post Anesthesia Care Unit (PACU) or recovery room. Your stay in the PACU will depend upon the effects of the anesthesia and pain control. Nurses will check your vital signs and monitor your progress. You will then be admitted to a hospital room.

WHAT TO EXPECT FROM YOUR NURSES

They will:

- Help you determine the need for pain medication.
 - Administer your regular medications as well as medication to prevent blood clots.
 - Monitor any side effects to medicines; don't forget to tell the nurse if you experience any nausea or itching.
 - Check your bandages and check drainage from your surgical site.
 - Remove incision drain and IV.
(the IV port will remain for any further need until you are discharged)
 - Encourage you to cough and take deep breaths, you will be instructed on and go home with an incentive spirometer to prevent post-operative pneumonia.
 - Assist you to the bathroom or commode.
 - Assist you to the chair or back to bed.
- Remember, please use the call light to request help from the staff to get back from the bathroom or in/out of bed and the chair.



DIET AND NUTRITION – AFTER SURGERY

Your discharge instructions will let you know if there are any diet restrictions you must make after surgery.

ACTIVITY AFTER SURGERY

Let comfort guide you. Moving frequently throughout the day is better than staying in one position. You will find that you are less stiff if you change positions as you feel the need to. Follow all precautions until instructed otherwise by your physician.

After your surgery, activity and movement are important to:

- Prevent blood clots from forming
- Assist in the return of normal bowel function after surgery
- Help you get back to your regular daily activities sooner
- Prevent lung infections such as pneumonia

BRACE WEAR

Always wear your brace as instructed by your surgeon.

NO BLT'S - NO BENDING, NO LIFTING, NO TWISTING!

For the first 4 to 12 weeks after your surgery, or until your health care team tells you otherwise, remember these important BLT basics:

- NO Bending: do not bend your spine
- NO Lifting: do not lift more than 10 pounds (a gallon of milk weighs about 9 pounds)
- NO Twisting: do not twist your back or neck

PHYSICAL THERAPY

Physical therapists are experts in the movement and function of the body. They can help people gain or regain the physical abilities they need for day-to-day functioning, working, or participating in sports or other activities.

What will I do with the physical therapist in the hospital?

- Learn exercises to improve your strength and range of motion.
- Practice using a walker to improve mobility.
- Work on restoring normal walking pattern.
- Ensure you are comfortable using stairs if applicable.

Following your hospital stay, outpatient physical therapy will start at 6 weeks post-operatively or when instructed by your surgeon.

EXERCISE

Safe activity and light exercise will help speed your recovery (do not sweat):

- Walking is the best exercise the first few weeks after surgery
- Take frequent walks each day and advance the distance as tolerated
- Avoid steep hills and rocky uneven terrain



BED MOBILITY - LOG ROLLING

The following information defines what is termed a “log roll” to protect your spine while it heals. This is the best way to maintain a neutral spine position while getting in and out of bed.

- Getting into bed: from sitting, lower yourself onto your side while raising legs at the same time.
- Getting out of bed: from your side, move legs off the bed as you push yourself up into a sitting position.
- Rolling in bed: bend your knees and move your shoulders and hips together to avoid twisting.
- Pillows: use a pillow between your knees when rolling, sitting up or lying down. This will help maintain the proper alignment of your hips and knees. Use a pillow under your knees when sleeping on your back, or between your knees when sleeping on your side.



Example of Log Rolling With Assistance



Scan the QR code to watch a video about the log rolling technique.
Spine Surgery - The Logroll Technique - YouTube

SITTING

Avoid prolonged sitting (microdiscectomy) and follow these simple recommendations:

- Avoid low seats and chairs that roll or swivel
- **Microdiscectomy** – reclined 45 degrees or less x 2 weeks
- **Fusion** - sit up straight and avoid slouched, rounded shoulder postures x 2 weeks

LIFTING MECHANICS

- Avoid heavy lifting.
- With any necessary lifting, keep weight close to the body and lift with your legs.
- Do not lift more than 10 pounds.

Lifting Mechanics - Good vs Bad



BAD



GOOD



BAD



GOOD

The Diagonal Lift

Squat, head up, back arched, feet spread one foot ahead as you lift.



TRANSITIONING HOME

There are certain goals you must reach so that you can be safely discharged from the hospital, and your medical team will work with you to help you reach these goals and plan for this transition.

Please coordinate any private home care, home health care, or outpatient services with your provider prior to your scheduled procedure, including obtaining any durable medical equipment. A Case Manager will be available to assist you with any additional discharge needs that may arise during your stay in the hospital.

GENERAL DISCHARGE CRITERIA

- Tolerate the diet your physician prescribed to you.
- Drink all of the liquid your body needs without feeling sick.
- Pass gas.
- Manage your pain with oral pain medicine only.
- Get out of bed and walk without help.

Everybody meets discharge criteria at slightly different times. Different surgeries and different surgical approaches may need more or less time in the hospital. Please talk with your surgeon about expectations for your surgery.

You will need to arrange for a responsible adult to drive you home. To make your ride more comfortable, your driver should bring pillows, slide your seat back, and recline the seat slightly.

MEDICATIONS YOU MAY GO HOME WITH:

- An opioid medication for pain management
- A blood thinning medication to help prevent blood clots
- A muscle relaxant for muscle spasms
- A stool softener to prevent constipation

These prescriptions and instructions will be given to you during the discharge process from the hospital. Resume your home medications as instructed by your physician.





WHAT HAPPENS WHEN I LEAVE THE HOSPITAL?

OPTION ONE | HOME WITH OUTPATIENT SERVICES

- Follow-up appointments at surgeon's office.
 - Physical therapy at clinic of your choice.
- Best option if you have:**
- Good mobility
 - Help with transport
 - Help at home

OPTION TWO | HOME WITH HOME CARE SERVICES

- Nurse comes to your home to check incision and assist with medications.
 - Physical therapy at your home to instruct in post-operative exercises.
- Best option if you have:**
- Help at home, but still have limited mobility.
 - Limited help with transportation.

RECOVERY AT HOME

GENERAL TIPS

- Initially, you may need lots of rest breaks. Plan your days to include times to rest.
- Be sure to get dressed every day, this will help you to feel better.
- Resume as much personal care as possible within your recommended precautions. This will help increase your confidence and independence.
- Eat well balanced, healthy meals.
- Gradually resume the hobbies or social activities you enjoy as long as they are within your recommended movement precautions.

BATHING AND SHOWERING

- Have someone help you the first few times you shower, until you feel sure about your safety.
- Use a shower chair or tub transfer bench for in your tub or shower. This will increase your safety and help you save your energy. Be sure not to twist while entering or exiting the tub or shower.
- Follow your surgeon's instructions regarding the care of the incision. It is important NOT to soak in water until your surgeon tells you otherwise.

TOILETING

- Use a raised toilet seat or a bedside commode over your toilet or grab bars at home. Avoid 'plopping' during transfer.
- Use of a toileting aide for post toilet cleaning/wiping will allow increased ease and cleanliness whilst preventing twisting or bending during this activity.

DRESSING

- Wear loose-fitting clothes so that you do not twist your upper body when you put them on and take them off as well as to increase ease for dressing.
- If it is hard for you to reach your feet by crossing your feet up to your knee, you can use a sock aid, long-handled reacher, or a long-handled shoehorn for putting on and taking off your pants, socks, and shoes.
- Sit down while completing lower body self-cares and clothing management.
- If you have one leg that is less mobile, dress that leg FIRST.

DAILY LIVING NEEDS

- Arrange your house so that frequently used items are easily accessible. Place items between knee and shoulder level for easier access.
- Keep living areas and walkways free of clutter and well lit, and put away throw rugs for at least 4 weeks.
- Listen to your body when doing activities, if you start to feel increase in pain and/or fatigue, then take a break.

SELF-CARE AND HOME MANAGEMENT

Gradually resume your normal routine while following these precautions:

- Avoid highly strenuous household tasks the first week or so and incorporate proper posture and body mechanics into your activities of daily living.
- Do not pull anything tight over your head or collar (ie: turtle neck top).
- Avoid hunched over positions when washing your hands, brushing your teeth, shaving, or applying make-up.
- Keep meals simple and arrange your kitchen so that frequently used items are close to counter top level.

MENTAL WELLNESS AFTER SURGERY

- Be patient with yourself!
- It is normal to feel frustrated, stressed, tired, or depressed after a major injury or surgery. Some people feel they are not as sharp mentally. Do not make yourself do mentally challenging tasks. Talk with your health care provider if you have these feelings and feel overwhelmed by them.



RECOVERY AT HOME (CONTINUED)

PHYSICAL ACTIVITY

Being overaggressive with your therapy may lead to increased pain and swelling.

- It is vital that you do ankle pumps and walk for 10-15 minutes every few hours.

This will help prevent blood clots.

WOUND CARE INSTRUCTIONS

- Always clean your hands with soap and water or an alcohol-based hand rub before and after caring for your surgical incision(s).
- Do not allow pets too close to your surgical incision(s).
- Do not apply any ointments or lotions unless specifically instructed to do so by a provider.
- No pools, baths, or soaking of the surgical incision(s) until instructed to do so by your surgeon.
- Family/friends who are visiting should clean their hands with soap and water or an alcohol-based hand rub before and after visiting.

WHEN CAN I DRIVE?

- Resuming driving is up to your surgeon's discretion.
- Your return to driving will be dependent on how often and what medication you are on. You should NOT drive while taking any narcotic pain medication.
- Plan to rely on other means of transportation until you have been cleared to drive.
- Limit driving following surgery, even as a passenger (due to sitting, twisting for seatbelt, etc.).



WHEN CAN I RESUME MY NORMAL ACTIVITIES?

Participating in as much of your personal care as possible will increase your confidence and independence as well as supplement your exercise program.

During your follow up visit, check with your surgeon about when to return to specific athletic activities.

IMPORTANT REMINDERS

- Avoid wet and slippery areas, and be very cautious around children and pets as they can be unpredictable.
- Listen to your body and rest when you need to. Do not allow yourself to become fatigued.

LIFE AFTER SPINE SURGERY

TRAVELING

When traveling long distances, you should attempt to change position or try to stand every hour. Some of the exercises, like ankle pumps, can also be performed should you need to sit for long periods of time. Traveling is not recommended prior to 6-weeks after surgery, check with your surgeon to establish a safe timeline.

EXERCISES AND ACTIVITY

Exercise and maintaining an active lifestyle are important parts of health. Most patients after surgery are able to enjoy many activities, though some should be avoided. In general, high impact exercises, heavy weight lifting, or contact sports, are not recommended. Participating in these activities, or activities like them, may damage your surgery area or cause it to wear down much more quickly. Low impact activities like swimming, walking, and gardening are encouraged.



DENTAL CARE/ANTIBIOTICS

You must take care to prevent an infection of your surgery area. Depending on your risk factors, antibiotics may need to be taken before any dental procedure, including routine cleanings. Check with your surgeon to determine if you will need a prophylactic antibiotic prior to any dental cleaning or procedure.

HOW TO PREVENT POTENTIAL COMPLICATIONS

All surgical procedures have some risks. Although advances in technology and medical care have made the procedure relatively safe, these risks do exist. Risks of complications should be considered carefully before you decide to have surgery. We encourage you to discuss the potential risks with your orthopedic surgeon, primary care provider, and your family.

Every measure will be taken by our team of experts to minimize the risks and avoid complications. Although complications are rare, they do sometimes occur. We will do our very best to avoid the most common risks which include:

SURGICAL SITE INFECTION

After surgery, an infection can develop in the part of the body where surgery took place – this is called a surgical site infection (SSI). Most patients who have surgery do not develop an infection. Although rare, SSIs can be serious. We want all patients to be aware of the possibility of an SSI and help prevent them. Patients with chronic health conditions, like diabetes or liver disease, or patients who take corticosteroids, are at higher risk of infection after any surgery. Superficial wound infections are usually treated with antibiotics. Deeper infections inside may require additional surgery.

Some common SSI symptoms include:

- Cloudy fluid draining from your surgical wound.
- Fever.
- Pain, redness, and warmth around the surgical area.

As your body heals, it is usual to see some redness and swelling at your incision. Do not be alarmed.

If you are concerned about redness and swelling associated with pain, fever or cloudy fluid draining from your incision, please call your doctor for further instructions.

BLOOD CLOTS

Deep vein thrombosis (DVT), or a blood clot in your leg, is a possible complication of spine surgery. A blood clot that travels from your leg to your lungs is called a pulmonary embolus.

It is very important that you follow instructions to prevent blood clots:

- Take your anticoagulant medication as directed.
- Wear your TED stockings (compression socks) as directed after your surgery.
- Minimize time in bed after surgery, take walks several times a day.

SIGNS OF A BLOOD CLOT IN YOUR LEG (DVT):

- Swelling of foot, ankle, calf, or thigh that does not resolve with elevation.
- Pain, heat, and/or tenderness in leg or calf.

If you develop any of the above signs, please notify your surgeon's office.

SIGNS OF A PULMONARY EMBOLUS:

- Sudden chest pain.
- Rapid or difficulty breathing.
- Shortness of breath.
- Sweating.
- Feeling lightheaded or passing out.

If you develop any of the above signs, this is an emergency and you must call 911 right away.



HEMATOMA

Bleeding into the surgery site can occur either immediately after surgery or at a later time. This is accompanied by acute pain and swelling and is sometimes confused with infection.

NERVE AND BLOOD VESSEL INJURIES

Damage to the surrounding structures including nerves and blood vessels are possible but extremely rare. More commonly there is numbness in the area of the incision which usually, but not always, resolves in 6-12 months. Do not be surprised if you have some small residual numbness in one or more areas around your incision.

WOUND HEALING

Sometimes the surgical incision heals slowly, particularly if you take corticosteroids, smoke*, or have a disease that affects the immune system, such as diabetes.

* Smoking can cause serious complications, and quitting before undergoing spine surgery is strongly encouraged. Talk with your orthopedic team or your family physician if you need help with smoking cessation.

WEAR

Your spine surgery may contain a mechanical device that will wear over time. The rate of wear may depend on your age, weight, and activity level.

REDUCE YOUR RISKS

You can help reduce your risks of many of these complications by:

- Reducing or eliminating the use of tobacco, if applicable.
- Being compliant with managing your diabetes, if applicable.
- Maintaining a healthy diet.
- Using good hand washing techniques.
- Performing your exercises as directed by physical therapy.
- Limiting high impact activities.

COMMON QUESTIONS

WHAT TIME IS MY SURGERY?

Bozeman Health will call you one business day before surgery to review instructions and verify your check in time. If you do not have a surgery time by 3 p.m. one business day before your surgery, call 406-414-1600.

WHAT ARE MY EATING INSTRUCTIONS BEFORE SURGERY?

Bozeman Health will call you one business day before surgery to review eating and drinking instructions. If you do not follow the instructions, your surgery may be cancelled.

WHAT MEDICATIONS CAN I TAKE THE DAY OF SURGERY?

During your Pre-Anesthesia Clinic appointment, you will be instructed on which medication to take morning of surgery. If you do not remember which medications to take, please call the Pre-Anesthesia Clinic at 406-414-4280.

WHEN CAN I SHOWER?

Your surgeon will give you specific showering instructions based on your type of surgery.

HOW LONG DO I HAVE TO WEAR MY COMPRESSIONS STOCKINGS?

Wear compression stockings on both legs for 2 - 3 weeks.

WHEN DO MY STITCHES OR STAPLES COME OUT?

If absorbable sutures are not used, staples or sutures will be removed in 2 - 3 weeks at your surgeon's office.

HOW DO I GET MORE PAIN MEDICATION?

Give your surgeon's office TWO DAYS NOTICE. Call their office and leave your name, date of birth, doctor, Pharmacy, name of medication, and strength. Some medication cannot be called in to your pharmacy and the prescription will need to be picked up.



WHEN CAN I DRIVE?

There are several factors to be taken into account when resuming to drive. Discuss this with your surgeon.

WHEN CAN I FLY ON AN AIRPLANE?

4 - 6 weeks following surgery is recommended.

WHEN TO CALL WITH QUESTIONS OR CONCERNS

WHEN TO CALL YOUR SURGEON

A moderate amount of bruising, swelling, and redness can be expected after spine surgery. If you experience any of the following, you should contact your surgeon's office:

- A fall.
- Pain not relieved by medication or pain that is getting worse.
- Thick yellow drainage or bleeding from the incision site.
- Excessive swelling that persists.
- Increased redness around your incision.
- A temperature over 101 degrees F. (38.3 degrees C)
- Any unexpected problems, concerns, or questions.

MEDICATION REFILLS

Give your surgeon's office TWO DAYS NOTICE. If you need a refill of your pain medication, please call your surgeon's office, 8 a.m. to 5 p.m. Monday through Friday, as most pharmacies are also open during these hours and will be able to fill your prescription in a timely manner. Some medication cannot be called in to your pharmacy and the prescription will need to be picked up.

Please plan ahead for weekends and holiday closures.

IMPORTANT PHONE NUMBERS

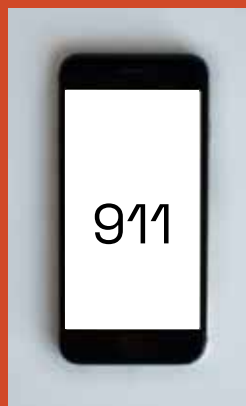
**Bozeman Health Deaconess
Regional Medical Center**
406-414-5000

Pre-Anesthesia Clinic
406-414-4280

**Spine + Joint Institute
Nurse Navigator**
406-579-2799

Patient Financial Services
406-414-1015

Bridger Orthopedic
406-587-0122



CALL 911 OR GO TO THE EMERGENCY ROOM IF YOU:

- Have severe abdominal pain.
- Have severe chest pain.
- Are short of breath or have trouble breathing.
- Or if you have any other severe problems.

DURABLE MEDICAL EQUIPMENT VENDORS

BOZEMAN	HOURS	BUY	RENT	LOAN	NOTES
BOZEMAN SENIOR CENTER 406-586-2421	Monday - Friday 8:30 a.m. - 4 p.m.			X	Must be at least 50 years old You do not have to live in Bozeman for loan equipment
BRIDGER ORTHOPEDIC 406-556-9115 406-556-9105	Monday - Friday 8 a.m. - 5 p.m.	X	X		Delivery available to hospital
PRICE RITE PHARMACY AND MEDICAL EQUIPMENT 406-587-0608	Monday - Friday 9 a.m. - 6 p.m. Saturday 9 a.m. - 5 p.m.	X			Delivery available Call for details
BLUE BIRD MEDICAL SUPPLY COMPANY 406-585-2860	Monday - Friday 9 a.m. - 5 p.m.	X	X		Delivery available Call for details
PACIFIC MEDICAL, INC. 406-698-2296	Monday - Friday 9 a.m. - 5 p.m.	X			Delivery available to Bozeman, Belgrade, and Livingston
COMMUNITY HOME OXYGEN ROTECH HEALTHCARE, INC. 406-586-1262	Monday - Friday 9 a.m. - noon 1 - 4 p.m.	X	X		Delivery available Call for details
SURROUNDING AREAS		BUY	RENT	LOAN	NOTES
BELGRADE SENIOR CENTER 406-388-4711				X	Limited items
BIG TIMBER PIONEER MEDICAL CENTER 406-932-4603				X	Ask for hospice
BUTTE - HARRINGTON SURGICAL SUPPLY 800-345-9517		X	X		Delivery available Call for details
HARLOWTON SENIOR CENTER 406-632-4360				X	Limited items
LIVINGSTON SENIOR CENTER 406-333-2276				X	Limited items
LIVINGSTON WESTERN DRUG 406-222-7332		X	X		\$1 delivery in Livingston
MADISON VALLEY MEDICAL CENTER 406-682-6605				X	Limited items
RED LODGE SENIOR CENTER 406-446-1826				X	Limited items
THREE FORKS SENIOR CENTER 406-285-3235				X	Limited items
WHITE SULPHUR SPRINGS SENIOR CENTER 406-547-3651				X	Limited items

DURABLE MEDICAL EQUIPMENT*



FRONT WHEELED WALKER AND TREKKING POLES
Standard walker with two front wheels and two back slider legs.



ELASTIC SHOELACES
Heavy-duty elastic shoelaces don't need special lacing or tying.



SHOEHORN
16.5 or 18 inches with curved handle to provide secure grip.



SOCK AID
Slip on socks without completely bending over. Continuous loop is great for one-handed users.



STANDARD RAISED TOILET SEAT
Raised seat makes it easier to sit and rise from toilet. Installs easily onto round toilet bowls.



LOCKING RAISED TOILET SEAT WITH ARMRESTS
Comfort and stability with armrests for safety and support.



REACHER

This lightweight aluminum reacher makes it possible to grasp things more than an arm's length away without undue straining. Trigger action jaws close tightly to grab and hold things and a special pulling lug and magnet combination brings small objects toward you.



COMPRESSION STOCKING DONNING AID
Used for putting on tight compression stockings if needed.

*Equipment shown for representational purposes only. Merchandise is subject to stock on hand at the vendor of your choice.



SAFETY FRAME

Heavy-duty frame provides extra support for those whose knees, hip or back make it hard to sit or rise.



BEDSIDE COMMODE

This can be used as a standard bedside toilet, an elevated toilet seat, or safety rails over the toilet.



BATHTUB TRANSFER BENCH

The bathtub transfer bench makes it safer to step in and out of the bathtub and lets you bathe with confidence.



HEAVY-DUTY BATH AND SHOWER SEAT

Adjustable, durable seat with drainage holes.



GRAB BARS

Prevent falls in the bathroom and around the home. Sizes vary. Recommend installation by a qualified professional.



COMFORT WIPE AIDE STICK

Self-assist toilet aid for bathroom hygiene.

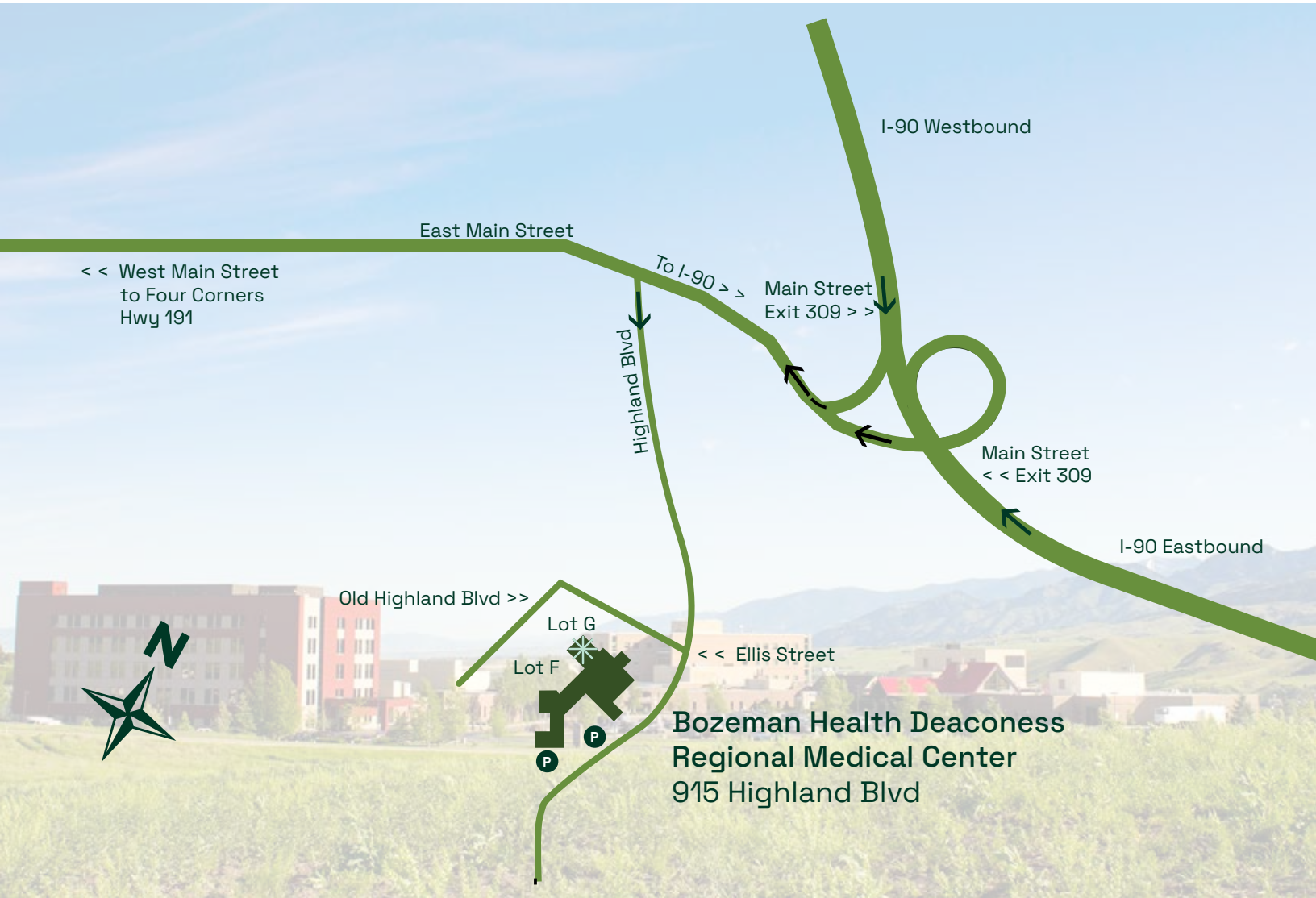
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- Molnlycke Health Care (2016). CHG How To. Retrieved from <http://www.molnlycke.us/antiseptics/general-skin-cleansing/CHG/>
- CDC (n.d.) Frequently asked questions: Surgical Site Infections. Retrieved from http://www.cdc.gov/HAI/pdfs/ssi/SSI_tagged.pdf
- American College of Surgeons (2015). Quit smoking before your operation. Retrieved from <https://www.facs.org/~media/files/education/patient%20ed/quitsmoking.ashx>

DRIVING AND PARKING INFORMATION

BOZEMAN HEALTH DEACONESS REGIONAL MEDICAL CENTER

915 Highland Blvd, Bozeman, MT 59715



* **Surgical Services** - Building 4, Entrance 8, Floor 2
On the day of your surgery, park in Lot F or G

Pre-Anesthesia Clinic - Building 4, Entrance 8, Floor 2



BozemanHealth.org