

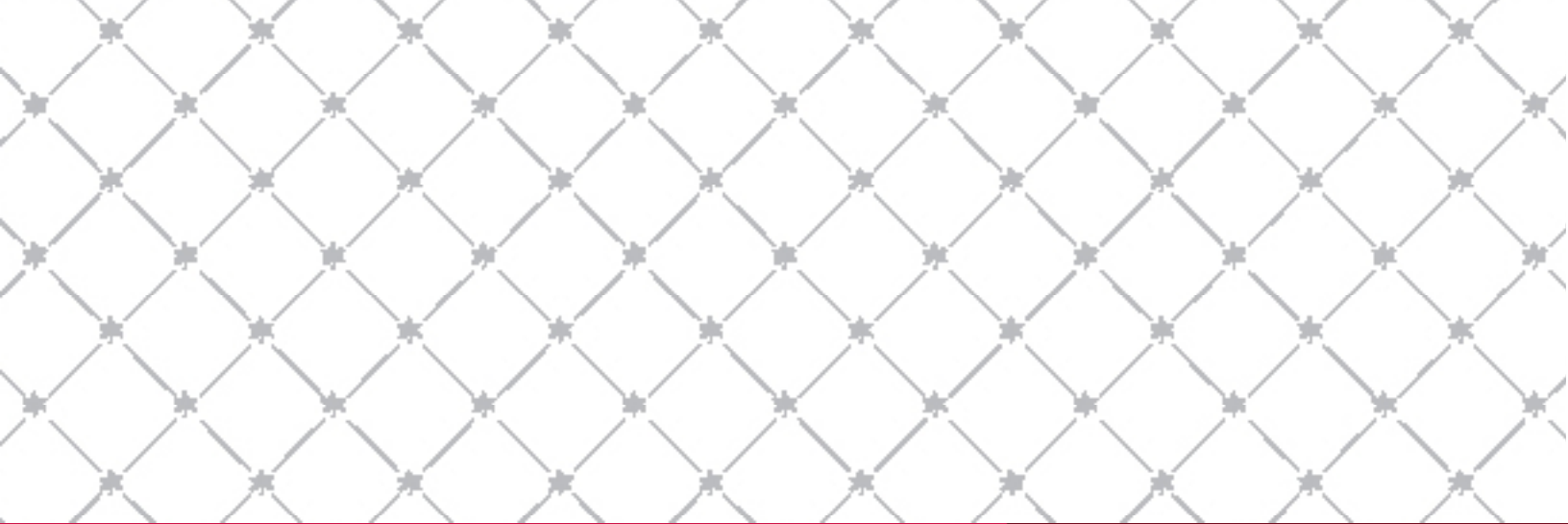


# Spine Surgery



THE OHIO STATE  
UNIVERSITY

WEXNER MEDICAL CENTER



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This is for informational purposes only. Talk with your healthcare provider if you have any questions about your care.

For more health information, contact the Library for Health Information at 614-293-3707 or [health-info@osu.edu](mailto:health-info@osu.edu).

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Thank you for choosing to have your spine surgery at The Ohio State University Wexner Medical Center.

Please review the information in this book to help prepare for your surgery. We want you to ask questions about anything that is unclear or that you would like to know more about.

**For a digital copy of this book, please visit [go.osu.edu/pted5171](https://go.osu.edu/pted5171).**

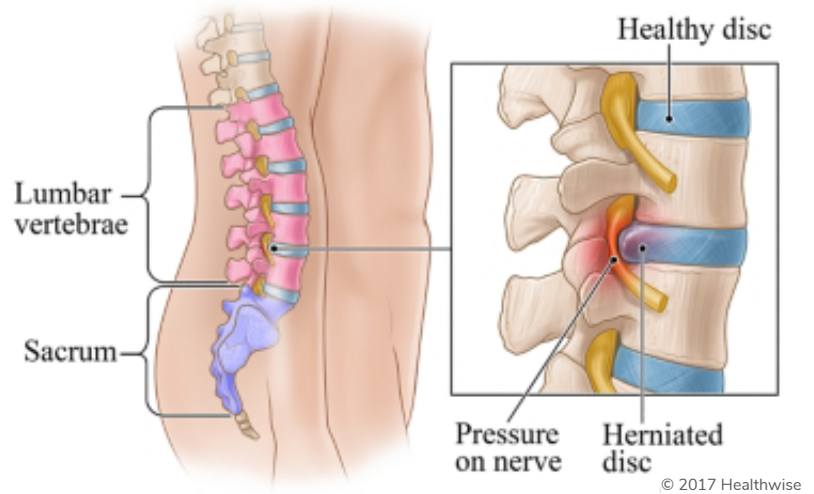
# Learning About Spine Surgery

There are different surgeries for the spine. Listed here are some common types. Your healthcare provider will discuss your specific surgery with you.

## Microdiscectomy

Microdiscectomy is surgery to remove part or all of a bulging or damaged (herniated) disc in the spine. A herniated disc in the low back (from the first lumbar vertebra to the sacrum) is called a lumbar herniated disc. If it irritates or presses on the spinal nerves, it can cause pain and numbness in the buttock and leg.

Surgery is done to stop the pressure on the nerves. This may help with pain and numbness, and help you to move better. It will also help prevent further damage. Some people notice that their symptoms improve very soon. But your back may feel stiff and sore for a few weeks.



## Lumbar laminectomy

A lumbar laminectomy is surgery to ease pressure on the spinal cord and/or nerves of the lower spine. This is also called decompression surgery. The doctor makes a cut, called an incision, in the lower back. Then the doctor takes out pieces of bone that are squeezing the spinal cord and nerves. The doctor may also take out other tissues. Many people have less pain soon after surgery. But your back may feel stiff and sore for a few months.

## Spinal fusion for thoracic or lumbar spinal stenosis

Laminectomy is the most common type of surgery done to treat lumbar (low back) spinal stenosis. This is also called decompression surgery. This surgery is done to relieve pressure on the spinal nerve roots caused by age-related changes in the spine. It also is done to treat other conditions, such as injuries to the spine, herniated discs, or tumors. In many cases, reducing pressure on the nerve roots can relieve pain and allow you to resume normal daily activities.

In some cases, spinal fusion (arthrodesis) may be done at the same time to help stabilize sections of the spine. Spinal fusion is surgery that joins, or fuses, 2 or more vertebrae together. The joints will no longer be able to move. Often human bone or bone matrix is used to make a bridge between the vertebrae to be joined. Metal rods, wires, or screws are often attached to the vertebrae. This will hold them together until new bone grows between them.

Spinal fusion is major surgery, usually lasting several hours. It involves making an incision in your back, belly, or side. You can expect your back to feel stiff and sore after surgery.

## Cervical disc replacement/arthroplasty

Cervical disc replacement, also called cervical arthroplasty, involves a small incision in the neck. During the surgery, the surgeon removes the disc and other tissue, making more room for the nerves. A metal disc is inserted between the vertebrae to “replace” the disc and maintain the space and alignment.

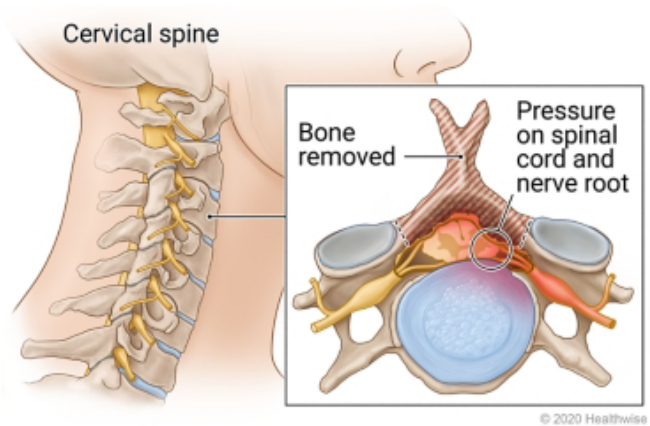
## Anterior cervical decompression and fusion

This surgery involves a small cut (called an incision) in the front of the neck. During the surgery, the surgeon removes pieces of bony covering and other tissues (which can include discs) that are squeezing the spinal cord and nerves. In some cases, small pieces of bone or small plates and screws will be used to hold the spine in place after the tissue is removed.

## Cervical laminoplasty

A cervical laminoplasty is a surgery done to relieve pressure on the spinal cord or nerves through an incision in the back of the neck, called a posterior approach.

During the surgery, the bone lying over the spinal cord, called the lamina, is partially cut on the right and left sides. This creates a hinge on 1 side of the lamina and a small opening on the other side. The lamina is held open by a spacer made out of bone, metal, or plastic. It is like a door being held open with a door stop. This increases the space for the spinal cord and takes the pressure off of it. The spinal cord can move away from whatever was compressing it and the spinal fluid can then flow around the spinal cord more normally.



## Posterior cervical spinal fusion

Cervical spinal fusion is surgery that joins 2 or more of the vertebrae in your neck. When these bones are joined together, it's called fusion. After the joints are fused, they can no longer move. During the surgery, the surgeon makes a cut, called an incision, on the back of your neck. The doctor uses bone to make a “bridge” between your vertebrae. This bridge may be strengthened with metal plates and screws. In most cases, the surgeon uses human bone or bone matrix. It is normal to have stiffness and soreness in the neck after this surgery.

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# Your Care Team

Our goal is to provide you with personalized care and service to help prepare you for your upcoming spine surgery. Your surgeon and healthcare team will discuss what to expect with you.

**Orthopedic/Neurosurgery Surgeon:** Your surgeon guides your care from the time you see them in the office, through your surgery and hospitalization, and during your follow up care.

**Advanced Practice Providers (APPs):** APPs help the surgeon with your care and may assist during surgery. You may also see the physician assistant (PA) or nurse practitioner (NP) at your follow up appointments.

**Resident/Fellow:** A resident/fellow is a licensed physician who works in a specialty area of medicine and who is supervised by your surgeon or consulting doctor.

**Anesthesiology Team:** This care provider will discuss your anesthesia with you and answer any questions you may have. Members of your anesthesiology team will speak with you before your surgery.

**Nursing Team:** Nurses will monitor your condition during your recovery and hospital stay. They will give you pain medicine when you need it. They will also help with normal daily activities such as bathing, grooming, getting into a chair for meals, and going to the bathroom. If you need anything, please let them know.

**Physical Therapy Team (PT):** Physical therapists will focus on walking, balance, and strength. They will work with you while you are in the hospital.

**Occupational Therapy Team (OT):** Occupational therapists help teach and guide you to complete your everyday home activities and will offer suggestions for making your home environment safe.

**Care Management Team:** Your care manager and social worker will work with you and your family, surgeon, and care team to coordinate a safe plan for your transition to the next level of care. This may include arranging for durable medical equipment, home healthcare, or skilled rehabilitation. Your care manager also coordinates any necessary communication and authorization with your insurance company.

**Pharmacist:** The hospital's pharmacist offers education regarding your medicines. They keep a close watch on the medicines you receive while in the hospital.

**Hospitalist:** In addition to your surgeon, you may also be seen by a physician who works in the hospital with admitted patients.

# Financial Issues

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## Check with your insurance

Your health insurance provider may require pre-authorization for this surgery. **Contact your insurance company and talk to the staff in your surgeon's office.**

**Please be prepared to pay any co-insurance or deductible as requested by Ohio State Wexner Medical Center.**

If your insurance has less than 100% coverage, we ask that you pay a deposit of \$300 before the procedure.

A representative from the hospital will contact you to pre-register you for your surgery. If you have not received a call by 2 days before your surgery date, please call our Pre-Registration Department at 614-293-8200. The representative will be able to discuss both your doctor and hospital coverage and charges.

If your coverage is considered out of network, you will likely not qualify for financial aid. **Please find out if you are in network or out of network early in the process.**

If you have MyChart, you can log on and complete a pre-registration questionnaire.

## Using Bureau of Worker's Compensation as payer

Patients that plan to use the Bureau of Worker's Compensation (BWC) as their payer source for surgery must notify Registration, the clinic nurse, and the surgery scheduler as soon as possible.

Please note that your surgery cannot be scheduled until your BWC claim for surgery is approved.

## Financial aid

We will work with you and your family to help you get the care that you need.

If you do not have health insurance or cannot pay your bill, we encourage you to call our financial counselors at 614-293-2100. A staff member will be able to help check if you might qualify for aid.

They can help:

- Complete applications for government programs.
- Describe other programs that may offset costs.
- Figure out a workable payment plan for the cost of your treatment.

The financial counselor can also help you with options related to the Affordable Care Act.

Ohio State Wexner Medical Center offers a sliding scale financial assistance program based on federal poverty guidelines that would be offered if you qualify.

# Preparing for Surgery

Review these instructions as soon as you get them, so you are well prepared for your surgery. This can help you to have a better recovery. Follow these instructions to keep your surgery on schedule. Call your doctor's office if you have any questions.

## Pre-admission testing visit

You will be scheduled for some tests to check that you are ready for surgery. You will have a physical exam within 30 days of surgery. You will also have blood tests, a chest X-ray, and maybe an electrocardiogram, also called an ECG or EKG, to check your heart. Your surgeon might ask that you complete labs and chest X-ray only without a physical exam.

You will have a nasal swab to test for MRSA/MSSA, which can live in the nose and cause no symptoms. If your test is positive, you will be given a prescription for mupirocin nasal ointment. Apply the medicine in each nostril twice a day for 5 days.

You may be advised to stop certain medicines, such as blood thinners, non-steroidal anti-inflammatory, and certain medicines for autoimmune conditions. You may have a visit with a provider (doctor or advanced practice provider) 1 month before surgery to go over the surgery and your recovery.

**If you have a cardiologist**, please make an appointment with your cardiologist before surgery to discuss the upcoming surgery and any needed updates to your cardiac testing.

## Weeks before surgery

### Important Medicine Changes

- **You will review your medicines at pre-admission testing.** Be sure to include all prescriptions, over-the-counter medicines, herbal products, or vitamin supplements you take. You may need to stop or change certain medicines. **The pre-admission testing providers or your primary care provider should approve stopping the listed medicines.**
- **Do NOT** take ibuprofen (Advil or Motrin), meloxicam (Mobic), diclofenac (Voltaren), naproxen (Aleve or Naprosyn), or Excedrin for **5 days** before surgery. Acetaminophen (Tylenol) is okay to take up until the day of surgery.
- **If you take aspirin or medicines that contain aspirin**, ask your doctor if you need to take a different pain medicine before your surgery.
- **If you take a medicine to thin your blood**, ask the doctor who ordered this medicine if it is safe for you to stop taking it before your surgery. They may tell you to stop taking it before your surgery OR your doctor may tell you to keep taking it. Make sure that you understand exactly what your doctor wants you to do.
- **If you have had a stent**, especially a stent in your heart or brain, **DO NOT STOP** taking your blood thinner medicine until you are instructed by the doctor who placed the stent.

**Below is a list of common blood thinner/stent medicines:**

- apixaban (Eliquis)
- clopidogrel (Plavix)
- dabigatran (Pradaxa)
- edoxaban (Savaysa)
- enoxaparin (Lovenox)
- fondaparinux (Arixtra)
- heparin
- rivaroxaban (Xarelto)
- ticagrelor (Brilinta)
- vorapaxar (Zontivity)
- warfarin (Coumadin, Jantoven)

- **If your surgery date gets changed, and you had stopped or changed your medicine to prevent clots**, call your doctor. You may need to restart the medicine while you wait for your surgery to be rescheduled.
- **Do not take oral medicine (pills) for diabetes the morning of your surgery.**
- **If you take any of these oral medicines listed below**, stop taking for the following number of days before your procedure:

Medicine	Number of days to stop taking before procedure
▸ ertugliflozin (Steglatro)	4 days
▸ bexagliflozin (Brenzavvy) ▸ canagliflozin (Invokana) ▸ dapagliflozin (Farxiga) ▸ empagliflozin (Jardiance) ▸ sotagliflozin (Inpefa)	3 days
▸ semaglutide (Rybelsus)	1 day

- **If you use one of these injection medicines**, stop taking before your procedure as listed below:

Medicine	When to stop taking before procedure
▸ dulaglutide (Trulicity) ▸ exenatide (Bydureon BCise, Byetta) ▸ liraglutide (Saxenda, Victoza) ▸ semaglutide (Ozempic, Wegovy) ▸ tirzepatide (Mounjaro, Zepbound)	<ul style="list-style-type: none"> <li>▸ If you use the injection daily: do not use on day of procedure</li> <li>▸ If you use the injection weekly: stop taking 1 week (7 days) before the procedure</li> <li>▸ If you use the injection weekly for <b>weight loss only</b>: stop taking for 2 weeks (14 days) before the procedure</li> </ul>

- **If you take phentermine (Adipex), phentermine/topiramate (Qysmia), or naltrexone/bupropion (Contrave)**, please contact your prescribing provider to taper off the medicine before your procedure. These medicines should be stopped slowly by taking smaller doses over time as directed by your provider.
- **Stop hormone replacement or birth control pills** for 4 weeks before and 4 weeks after surgery, unless you have been given other directions from your surgeon.

- **DO NOT take herbal medicines** such as fish oil (omega-3), garlic, glucosamine-chondroitin, ginkgo, ginseng, probiotics) or vitamins (including multivitamins) for 2 weeks before surgery, unless you get other directions from your surgeon. Most vitamins and herbal supplements may be started again when you return home. Please refer to your After Visit Summary for details.

## Bone Health and Nutrition

If your surgeon spoke with you about your bone health, we recommend that you start taking a liquid protein drink to increase your nutrition and bone health. This may include, but is not limited to, Boost, Ensure, or powered protein. You may need to take this up to 3 times a day in addition to your daily meals. Lab tests may be done to evaluate your nutrition before surgery.

Below are general recommendations, but speak to your healthcare provider about your specific needs.

### Recommended calcium intake:

- People with male anatomy: 1000 mg a day for age 20 to 70, and 1200 mg a day for 71 or older
- People with female anatomy: 1200 mg a day for age 20 or older

### Recommended vitamin D intake:

Based on your 25-hydroxy D test results, the following vitamin D international units daily (IUD) are recommended:

- 25-hydroxy D total level 25 to 30 ng/mL: vitamin D3: 1000 IUD (25 mcg)
- 25-hydroxy D total level 15 to 24 ng/mL: vitamin D3: 2000 IUD (50 mcg)
- 25-hydroxy D total level less than 15 ng/mL: consider asking for a referral to an endocrinologist (doctor specializing in treating the endocrine system)
- Your surgeon may also order a DEXA scan (bone density test) if needed. This includes:
  - People with female anatomy who are:
    - 65 and older
    - Post-menopausal
    - Younger than 65, based on risk factors or if osteoporotic fracture present
  - People with male anatomy who are:
    - Age 70 or older
    - Age 50 to 69, based on your risk factors
    - Age 50 or older who have had a fracture as an adult (to diagnose and determine degree of osteoporosis)

## Other Health Issues

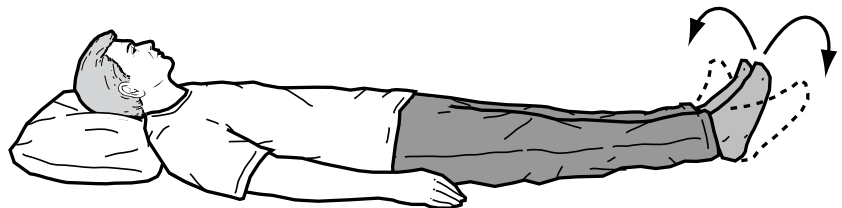
- **If you get sick with a cold, sore throat, cough, or fever, or you have any infection before your surgery, call the office right away.** Your surgery may need to be rescheduled until your infection is treated to avoid your spine getting infected.
- Have good eating habits and control your weight. If you are overweight, losing weight can make your recovery and rehabilitation easier.
- Avoid constipation. Talk to your doctor if you have had problems with constipation. If you have not had a bowel movement for a few days before your surgery, check with your doctor about a laxative or enema.

## Practice Your Exercises to Work Your Leg Muscles

- Do these exercises to strengthen your leg muscles and help prevent blood clots.
- Right after surgery and for the first 1 to 2 weeks, it is recommended you complete these exercises 10 times every hour you are awake.
- Do these exercises **lying on your back**. Exercise both legs. **Repeat each exercise 10 times, 2 to 3 times each day**, or as directed by your doctor, therapist, or nurse.
- **Breathe in as you tighten your muscles and out when you relax them.** This helps keep your muscles relaxed. Breathe in normally when you hold a position.
- Continue these exercises after surgery, until you become more active.

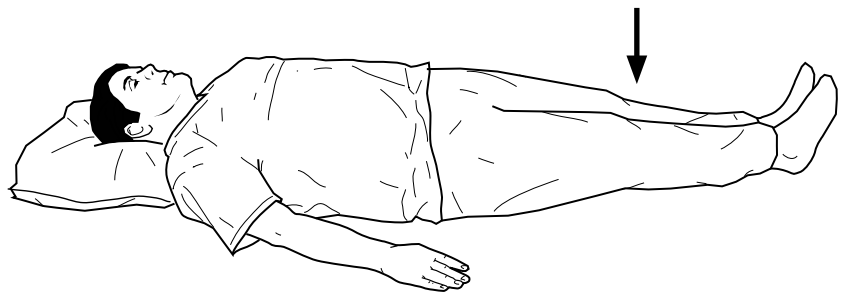
**Ankle Pumping:** Strengthens your calf muscles in your lower leg.

1. Bend your ankle, pulling your foot up toward your head.
2. Push your foot back down, away from you as far as possible, like you are pushing on the brake pedal of a car.



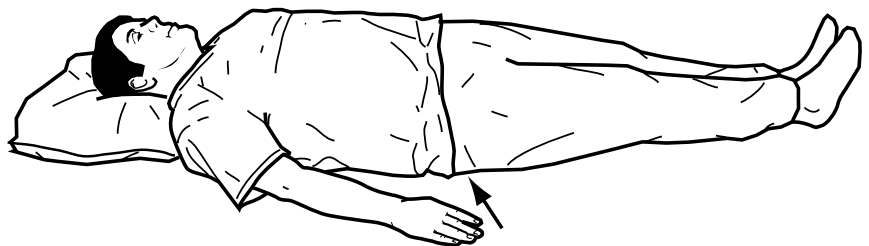
**Quad Setting:** Works your upper leg or thigh muscles.

1. Tighten the muscles of your upper leg.
2. Keep your knee straight and push your knee down into the bed. To get the idea, have someone place a hand under your knee. Push your knee down into the person's hand.
3. Hold for a count of 5, and then relax and repeat.



**Gluteal Sets:** Works your buttocks muscles.

1. Squeeze your buttocks together.
2. Hold for a count of 5, and then relax and repeat.



# Plan Ahead for Care After Surgery

Our goal is to have you go home after surgery. You will need some help to move around safely when you first leave the hospital after surgery. It is easier to arrange things before you have your surgery.

## Plan for help

**You should have someone with you for at least the first week after your surgery.**

Ask your family and friends to be available to help:

- Give you a ride home from the hospital
- Get you in and out of the car
- Help you with bathing and exercising
- Get you into and out of bed
- Do laundry and light housekeeping
- Deliver groceries and assist with meals
- Get you to your follow up appointments
- Collect your mail
- Care for your loved ones or pets

## Prepare your home

- Refill any regular medicines that will run out in the weeks after surgery.
- Have a list of emergency phone numbers located by your phone or a poster on your refrigerator.
- Consider setting up a temporary bedroom on the same floor as your bathroom and kitchen to avoid multiple trips up and down steps.
- Prepare a room with all your equipment on the first floor, if possible.
- Arrange your furniture to have wide, safe walkways throughout your home.
- Remove clutter or throw rugs from the floor that may cause you to trip and fall.
- Clear away any foot stools, electrical cords, or other items on the floor that could trip you.
- Rearrange your kitchen to have those items you use often within easy reach.
- Shop for frozen or canned food that will be easy to prepare.
- Put non-skid strips or pads in your bathtub or shower for safety.

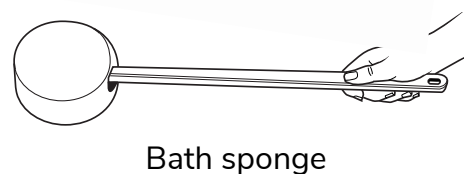
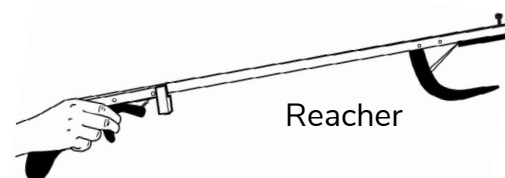
## Buy adaptive equipment

You may need several pieces of equipment to make your daily activities easier and safer after surgery. Other pieces of equipment may be useful based on your specific needs. When you are ready to discharge after surgery, your care manager/discharge planner may review any needed equipment.

Most of the equipment is not covered by insurance, but **check with your insurance company to see what may be covered**. You may be able to get some of the equipment from your local drug store or medical supply store. Your clinical care manager or social worker will be able to help you with this. Your therapist can teach you how to use the equipment before you go home.

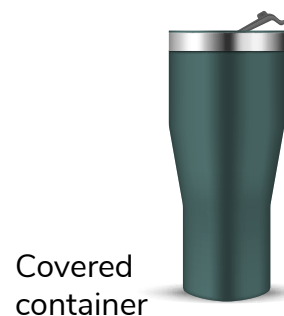
## Items you may need:

- Front wheeled walker: Helps you to be safe when standing up and moving.
- Bedside commode: A portable toilet.
- Raised toilet seat: Attaches to your toilet seat to raise the height.
- Cushion: Used to raise the seat height of a chair, car seat, or other surfaces.
- Reacher: Used to pick up items off the floor and to help with dressing.
- Long handled bath sponge: Helps you reach hard to reach areas when bathing.
- Shower chair or bench: Allows you to sit for your safety while you are in the tub or shower.
- Dressing stick: Used to help put on pants, skirts, pull up zippers, and other things. Has a hook on 1 end and a pusher on the other.
- Sock aid: Helps you put on socks without having to bend forward so much.
- Long handled shoe horn: Allows you to put shoes on while sitting or standing.
- Elastic shoe laces: Makes it easier for you to slip in or out of your shoes.
- Some patients may need a hospital bed when they first get home. Talk to your surgeon and physical therapist about your needs.



## Be safe at home

- Use an apron with pockets or attach an apron to your walker to carry things.
- Carry hot liquids in covered containers.
- Slide objects along the counter top instead of carrying them.
- Do not sit in swivel chairs.
- Use a reacher to reach objects on the floor or high up in the cupboards.



# Nicotine Use and Policy

You have been asked by your surgeon to **stop all nicotine use at least 6 weeks prior to surgery**. Nicotine products include but are not limited to: cigarettes, electric cigarettes, vaping, chewing tobacco, snuff, and nicotine cessation products (such as the patch, gum, mints, and lozenges). **You may have a nicotine test before surgery and your surgery may be canceled if it is positive.**

## Why quit

- Stopping all nicotine products will help with your wound healing, reduce the risk of infection after surgery, and help with bone fusion healing.
- Oxygen is needed for wounds to heal well. Just 10 minutes of smoking can decrease the amount of oxygen in tissue for up to 1 hour.
- Wound healing is harder in homes with a smoker because the dressings absorb smoke.

## Tips to help you quit tobacco

- Set a quit date. This is the day that you officially stop using tobacco.
- Get rid of all ash trays, lighters, spit cups, and tobacco products in your home, car, and at work.
- Tell others you are quitting. Having support is key to successful quitting.
- Try the “4 D’s”:
  - Delay. See if you can wait 5 minutes before lighting up. Even a few minutes can help a craving to pass.
  - Deep breathe. Count to 5 for each breath in and each breath out. Repeat 10 times.
  - Drink fluids. Drink liquids throughout the day to help clear nicotine from your body. Try to drink 8 (8-ounce) glasses each day.
  - Do other activities to keep busy. Take a walk, read a book, play a game, or talk to a friend. Try to keep your hands and your mind busy.
- Talk to your doctor, nurse, or pharmacist about medicines or other ways that can help.

## Quit resources

Talk to your doctor about a cessation program. You can also get help with these resources:

- Ohio State Smoking Cessation Clinics: 614-293-0932
- Ohio Tobacco Quit Line: 800-QUIT-NOW (784-8669)
- Quit for Life program from the American Cancer Society: 800-227-2345
- American Lung Association: 800-586-4872
- Ohio Partners for Smoke Free Families: [ohiosmokefreefamilies.org](http://ohiosmokefreefamilies.org)
- Quitting Tobacco Use Book: [go.osu.edu/pted3430](http://go.osu.edu/pted3430)

# Getting Your Skin Ready for Surgery

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Because germs live on everyone's skin, there is a chance of getting an infection when your skin is cut during surgery. To reduce the chance of infection, clean your skin with a special soap called **4% chlorhexidine gluconate or CHG**. You may be given or you will need to buy an 8-ounce bottle or larger. Ask your pharmacist where to find it in the drug store. It is often with the first aid supplies.

- **Do not shave for 1 week (7 days) near the site for your surgery cut.** Shaving with a razor can irritate your skin and make it easier to develop an infection. If needed, the hair on the site will be trimmed with electric clippers before you go to the operating room.
- CHG soap does not bubble and lather like most soaps.
- Be careful not to get CHG into your eyes, nose, mouth, or ears. If you do, rinse well with clean water.

## Shower with CHG as directed

Follow **the steps on the next page for how to shower with CHG soap.**

- **You need to take 2 showers using CHG.** Wash your whole body from the neck down with CHG soap the night before, and then again the morning of your surgery. Use 4 ounces ( $\frac{1}{2}$  cup) of CHG soap each time you shower.
- Be sure to **wash for 5 minutes and pay special attention to your back.** Be sure to wash the back of your neck, under your arms, your belly button, private parts, and your legs down to your toes.
- **Do not scrub too hard.**
- If you tested positive for MRSA/MSSA, you will need to shower with CHG daily for 5 days before surgery (5th day is the morning of surgery).

Please call your surgeon's office if you have any questions.

## If you are not able to shower

If you do not have a shower or if you are not able to get into the shower, do a sponge bath with CHG soap instead.

1. First, bathe with a washcloth and regular soap. Rinse with clean water.
2. Wet a clean washcloth and apply 4 ounces ( $\frac{1}{2}$  cup) of CHG soap to your whole body from the neck down for 5 minutes. Pay special attention to the part of the body where the surgery will be done.
3. Rinse well with another clean washcloth and plain water.
4. Pat yourself dry with a clean, dry towel.

**Do not use this soap after surgery.**

# How to shower with CHG soap

**1** Wash your hair as usual with your regular shampoo and then wash your body with regular soap.  
Rinse well.

**2** Wet a clean washcloth. Turn off the shower.

**3** Apply some CHG soap to the wet washcloth.

**4** Use the washcloth to wash your whole body **from the neck down**.  
Keep adding more CHG and continue to wash for **5 minutes**.

**5** Turn on the shower water and rinse your whole body well.

**6** Pat yourself dry with a **clean** towel.

**7** Put on **clean** clothes.

**8** **Note:** On the **morning of surgery** when you finish showering, **do NOT** put on hair or skin care products, deodorant, or make-up. **Do NOT** wear jewelry to the hospital or surgery center.

# Having Surgery

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## Starting night before surgery

Please **DO NOT** eat or drink anything after midnight before your surgery.

## Surgery arrival time

You will get a call 1 or 2 days before your surgery to tell you what time to arrive. If your surgery is scheduled for a Monday, you may be called on Friday. Please **arrive on time**, so we can prepare you for surgery.

## Pre-operative holding area

When you arrive in the pre-op holding area, or ambulatory surgery unit (ASU), the nurse will talk to you and give you a gown to change into for surgery.

- Your clothes are put into a bag and placed in a locker for safe keeping.
- Your blood pressure, pulse, temperature, and breathing rate will be checked. Other blood tests may be done if needed.
- Your nurse will swab your nose with a Betadine swab so please notify the nurse if you have an iodine allergy.
- A needle will be used to place a small tube, called an IV catheter, into a vein to give you fluids before, during, and after surgery.
- Dentures or partial plates, contact lenses, eyeglasses, hearing aids, and other items should be removed before surgery. Nail polish, make-up, jewelry, and any hair clips must also be removed.
- The anesthesiologist will come in to talk to you and have you sign a consent form.
- You will be asked to write your initials on the skin over the area that will have surgery. This is part of our safety checks.
- Your hair will be covered with a paper hat.

- Your family can stay with you in the pre-operative holding area or ambulatory surgery unit. The nurse will tell your family where they can wait while you are in surgery.

## Operating room

You will be taken into the operating room and all staff will wear gowns, caps, and masks. The room lights will be bright and the room will feel cool.

A nurse in the operating room will greet you and check your ID band. You will be asked some questions. A safety strap will be put over you, so you stay on the table. Staff will talk to you to let you know what they are going to do next.

You will be given medicine through your IV by anesthesiology to keep you free of pain and asleep during your surgery.

You may have a tube placed into your bladder to drain urine during surgery. This tube will be removed the day after surgery.

After your spine surgery is done, your surgeon will close the incisions and a dressing will cover the site.

Your surgery may take a longer or shorter time than you and your family were told. Your family can check a board in the waiting area to see where you are. After surgery, the surgeon will talk with your family.

## PACU

You will wake up in the Post-Anesthesia Care Unit (PACU), also called recovery. Your vital signs, oxygen level, and incision site will be checked. X-rays may be taken after recovery or the next day, depending on your surgery. You may be in PACU for many hours before going to your hospital room.

# Care After Surgery

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## Your care team

A team of doctors, advanced practice providers (APPs), registered nurses (RNs), patient care assistants (PCAs), physical therapists (PTs), and occupational therapists (OTs) will work with you after surgery.

- The nurse will check you, provide treatments and medicines, and teach you about your incision and other care.
- The PCA will help with your care and some procedures.
- The PT will teach you how to get out of bed and exercises to help your recovery.

**Use the call light for help to get out of bed.**

## Visitors

- For their health protection, children under the age of 12 should not visit.
- All visitors must wash their hands before entering or leaving a patient's room to reduce risk of infection. Use soap and water in the patient room or the alcohol-based hand sanitizer near the door.
- Please do not visit if you are ill.
- We ask that visitors are limited to 2 at a time.
- Isolation precautions must be followed. If there is an isolation sign on the patient's room door, see the patient's nurse before entering the room.
- If you have an adult visitor who plans to stay overnight, talk with the nurse. You may have to sign in at the nurse's station as an overnight guest. Only 1 adult is able to stay overnight.
- Visitor policies may change based on patient health and safety needs.

## Do not leave the unit

For your safety, we ask that you **stay on the nursing unit**, unless you are being taken to a test or procedure.

- If you want to leave the nursing unit for any reason, be sure to check with your nurse each time before you leave.
- Please return to the unit within 15 minutes. Let the nurse know when you are back to the room.

## Be a partner in your care

- **Be sure to tell your nurse right away if you feel sicker or have a new pain or problem, or if you feel something is just not right.**
- Ask if you have questions or concerns. Please ask if anything is different from what you were told to expect.
- Ask a family member or friend to be with you and to be your advocate. They can be an extra set of eyes and ears to watch and hear about your care to help you understand.
- Be sure to share all your health concerns and treatments with your doctor and care team. You may not think it is important, but it may help us to give you the safest care.
- Sharing information about your health once is often not enough. Many people may be involved in your care and you may need to let them know about you to help keep you safe.
- Be sure you get the results of any test or procedure. Ask your doctor or nurse when and how you should get the results.
- Make sure you, all your visitors, and anyone giving you care practice good hand cleaning. It is the best way to protect you from an infection.
- Look at medicines you are given to be sure they are correct and the right amount. If you are not sure what medicines you are being given, ask what they are and what they are for.
- Tell the staff if you are given food or drinks that you are not supposed to eat.
- If your ID wristband comes off, please let the staff know, so it can be replaced. You will be asked your name and your ID should be checked before you get medicines and some treatments.
- Learn what you can about your care.

Asking a question again is never a problem when safety and your health are at stake.

Refer to the **Patient and Visitor Guide** for more information.

## We will help you get out of bed or out of the chair

- **We will help you to get out of bed, so you do not fall.** Medicines that you take, some treatments, and just being in bed more can cause you to be weak and may cause dizziness. Cords and lines from equipment being used for your care can get pulled or trip you.
- **Always call us to get help getting out of bed or out of the chair or bathroom.**
- Never lean on or use an IV pole for support when you are walking.
- You will be taught how to use your walker to help you get around.

# In Hospital Care and Treatments

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## Diet

You will progress to a regular diet, unless you are having nausea. Protein, calories, and fluids will help you heal and recover more quickly.

## IV fluids and antibiotics

- You will receive fluids into your veins through the IV after surgery. The IV will stay in place until you are eating and drinking fluids after surgery.
- When you are able to eat, your IV will be capped off, so you will not need to have the tubing attached at all times.
- You can expect receive antibiotics to prevent infection for the first day after surgery. Most patients will not be given antibiotics to take at home.

## Surgical drain and incision

- There may be a drain tube. These are tubes connected to a collection device outside your body. The drain lets extra blood and fluid drain out of the wound, so the incision can heal. The fluid will be removed and measured by the nursing staff. Your doctor will decide when your drain should come out.
- Your incision may have staples, sutures, absorbable sutures, or glue.
- If you have sutures or staples, they will be removed in 2 to 3 weeks.
- Your incision will be covered with a dressing.
- Your nurses will teach you and your caregiver how to care for your incision at home.

## Preventing blood clots

During and after surgery, your limited ability to walk and move around can cause your blood circulation to be sluggish or slow and blood clots can develop. To prevent blood clots, your treatment may include:

- **Compression wraps on your legs.** These wraps attach to a small pump that pumps air in and out to increase the circulation in your legs. They will gently squeeze and relax while you are in bed to prevent blood clots. Keep them on whenever you are lying in bed during the hospitalization.
- **Medicine**, called an anti-coagulant or blood thinner.

## Bed exercises in the hospital

Therapists will visit you in your room. They will assist you to sit on the edge of the bed and teach you how to stand and use your walker. They will give you a list of exercises to do, show you how to do them, and tell you how often they should be done.

These exercises will help you stretch and strengthen your muscles and are an important part of your rehabilitation.

## Getting out of bed

- In the days after surgery, staff will get you up to sit in a chair to have your meals. This is part of your therapy and ordered by your surgeon.
- Remember: **DO NOT get out of bed for any reason without a staff member helping you.**

# Using Your Incentive Spirometer

## Breathing Exerciser

**Do your breathing exercises 10 times every hour when you are awake each day.**

Use your incentive spirometer, also called a breathing exerciser, to help you take deep breaths to open the air sacs in your lungs after surgery. This can help reduce the chance of developing breathing problems, like pneumonia.

Continue these exercises at home for 2 to 3 weeks or until your cough is dry.

### Steps for use

1. If possible, sit up straight. It may help to sit on the edge of a chair or your bed.
2. Hold the incentive spirometer upright.
3. Breathe out, and then close your lips tightly around the mouthpiece. Take in a slow deep breath through your mouth.
4. As you take a deep breath, the piston in the clear chamber of the incentive spirometer will rise. Breathe in slowly to allow the air sacs in your lungs time to open. Your incentive spirometer has an indicator to let you know if you are breathing in too fast.
5. After you breathe in as deeply as you can, hold your breath for 3 to 5 seconds. Set the goal indicator tab at the level that you reached.
6. Take out the mouthpiece and breathe out slowly. Relax and breathe normally for a few seconds until the piston returns to the bottom of the chamber.
7. Repeat these steps a **total of 10 times**. If you start to feel light-headed or dizzy, slow down your breathing and give yourself more time between the deep breaths.
8. After the 10 deep breathing exercises, **take a deep breath and cough to clear the mucus from your lungs.**



# Managing Pain

You can expect to have pain around your incision. You may also have pain and soreness in other areas of the body due to positioning during your surgery. There are many different ways to manage pain after surgery. The goal is to keep the pain down to a level that you are able to take part in activities such as bathing, walking to the bathroom, and therapy, and to rest and sleep.

## Pain control after surgery

Pain medicines do not work the same for everyone and it can take time to find what works best for you. The nurses will monitor your pain and your response to pain medicine, and contact your doctor as needed. Try to be patient as they work to find the best medicine combination for you. The first few days after surgery can be hard, but the pain does go down as you recover.

If you are having pain, please talk to your nurse and they can tell you what medicines you have taken, what options are available, and when you can take them next.

- You will be asked about your pain often. You will be asked to rate your pain on a scale of 0 to 10 with 0 being no pain and 10 being the worst pain.
- Your doctor will order medicine to help control your pain. Taking your pain medicine as ordered by your doctor will bring you the most relief as your body heals.
- You may need to take your pain medicine before your exercises or activity to improve your recovery.
- Our goal is to get your pain level to a 4 to 6 out of 10, so you can work with therapy.
- You will have pain after surgery. It will be more the first 2 to 3 weeks. We will prescribe medicines to help control pain, but you will still have mild pain after taking medicines.
- We will provide prescriptions for medicines at discharge, including pain medicines. If you need a refill before your 2 week visit, please call the office. We are unable to refill prescriptions on the weekend or at night.
- You will need over the counter acetaminophen (Tylenol) 500 mg tablets after surgery. You will be taking 1000 mg every 8 hours after surgery once you get home.

## Non-Drug Pain Control

Many patients find using other treatments helps to reduce the need for pain medicines. Some of these options may include:

- Activity:** Start moving as soon as possible after surgery if your doctor says it is okay. Moving helps your breathing and digestion, and helps you heal faster. Moving and being active can help lessen pain over time.
- Cold:** Cold can help lessen some types of pain. Talk to your surgeon if this is recommended for you.
- Deep breathing:** Taking slow, deep breaths can help you relax and lessen pain.

- ❑ **Distraction:** Focus your attention on something other than pain. Playing cards or games and talking and visiting with family may relax you and keep you from thinking about the pain. Watching TV or reading may also be helpful.
- ❑ **Music:** Whether you listen to music, sing, hum, or play an instrument, music can help you relax and help you breathe more deeply and slowly. It can also increase your energy and help change your mood.
- ❑ **Aromatherapy:** Uses essential oils to help support emotional, physical, or spiritual well-being. People who use aromatherapy may use oils in different ways, such as breathing in essential oils by using a room diffuser. Some use them with other products on the skin.
- ❑ **Relaxation techniques:** Stress and anxiety can make pain worse and may slow healing. Since it is hard to avoid stress, it can help to learn how to control it. Some ways to help you relax:
  - Use extra pillows and blankets to stay in a comfortable position.
  - Make sure the room is the right temperature for you.
  - Ask your support person to massage your back, hands, or feet to lessen your pain.
  - Try placing a cool cloth on your hands or face.
  - Close your eyes and imagine yourself in a place you find relaxing. Think about sounds or sights that you enjoy.

### Relaxation Resources

- Listen to free audio recordings for guided imagery, mindfulness practices, and relaxation techniques at [wexnermedical.osu.edu/integrative-health/resources](http://wexnermedical.osu.edu/integrative-health/resources).
- Books and compact discs (CDs) of relaxation exercises can be found at libraries or bookstores.
- You may find apps for your electronic device, such as your phone or tablet.

## Talking about your pain

**Tell your healthcare team as much as you can about your pain.** Share with them:

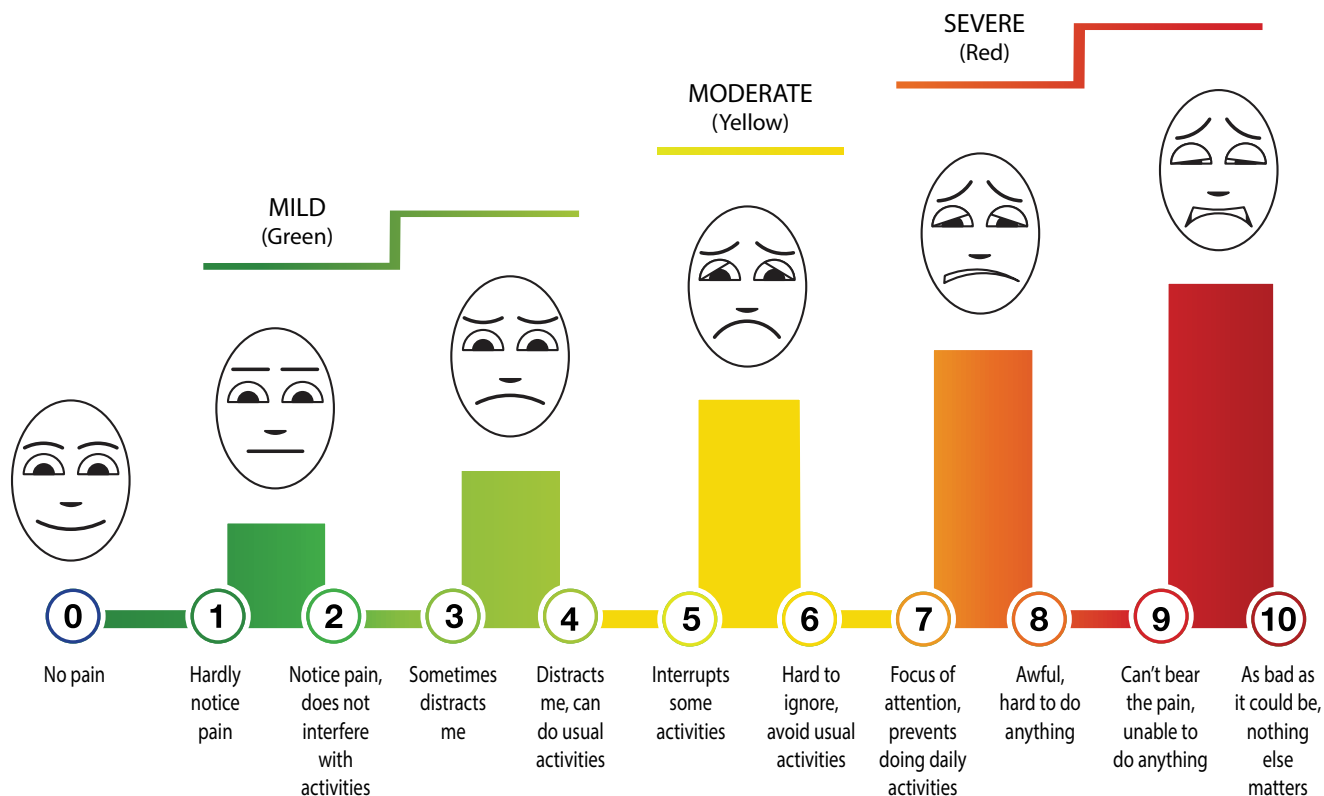
- **Location:** Where does it hurt?
- **Intensity:** How strong does the pain feel?
- **Duration:** How long do you feel the pain? How often does the pain occur?
- **Causes:** What makes the pain worse?
- **Relief:** What helps the pain?
- **What the pain is like:** Is it burning? Sharp? Dull? Stabbing? Spasms? Aching?

## Pain rating

How do you experience pain? Pain is personal and different for each person. We will ask you to use a pain rating scale to help us understand your pain and to set goals for pain control. You will be asked about your pain often. **Any time you have pain, tell your healthcare team.**

Use the scale and choose the number (0 to 10), description, or face that best matches the pain you feel now.

## Defense and Veterans Pain Rating Scale



Defense & Veterans Center for Integrative Pain Management v 2.0

### Pain medicine policy

**Pain management is important for your recovery. We want you to know about our policy on prescription pain medicines.**

- Your primary care doctor is responsible to manage your pain until surgery.
- If you have been on narcotic treatment for pain before surgery, your pain will likely be more difficult to control after surgery. Talk to the doctor who has been providing your narcotic medicine about reducing or eliminating your narcotic use before surgery.
- Patients treated by our spine surgeons may only receive narcotic pain medicine from 1 provider.
- After surgery, you will be given a prescription for pain medicine, based on your surgery.
- Our surgeons will manage your pain for 2 to 6 weeks, depending on your surgery.
- If you have a pain management provider, you will return to that provider for follow up in about 2 to 6 weeks, depending on the type of surgery you had.

## Pain after returning home

- Our goal is to get your pain level to a 4 to 6 on a 10 point scale so you can work with therapy.
- You will have pain after surgery. It will be more the first 2 to 3 weeks. We will prescribe medicines to help control pain, but you will still have mild pain after taking medicines.
- We will provide prescriptions at discharge for medicines, including pain medicines. If you need a refill before your 2 week visit, please call the office.

## Pain medicine refills

- Pain management will be addressed during your office or clinic visits.
- Be sure we have your correct pharmacy information. Only 1 pharmacy can be used for your pain medicine refills.
- **Ohio law does not allow more than a 7 day supply** of narcotic pain medicine.
- Should you need a refill between office visits, you will need to **allow 48 hours** for this to occur.
  - Under no circumstances will your prescription be refilled on a walk in basis in clinic or during weekend hours.
  - **You must call during clinic hours only, and before noon on Fridays.**
  - We do not refill prescriptions at night, on holidays, or over the weekend.
- Prescriptions are most often sent electronically to the pharmacy. In some cases, you will need to either pick up the hand written prescription at the office or the prescription may be mailed to you.
  - If your prescription is lost or stolen, a police report would be required to issue a new prescription.
  - If a prescription gets mailed and gets lost in the mail, we will not issue a new prescription.

## Risks of narcotic medicines

- Nausea or upset stomach
- Constipation
- Sexual dysfunction
- Depression
- Fatigue
- Increased sensitivity to pain
- Addiction and drug tolerance

If you have questions, please contact your surgeon's office.

# Physical and Occupational Therapy

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## Role of your therapists

After your surgery and while you are recovering in the hospital, you will be seen by therapists from our physical and occupational therapy team. These therapists will:

- Teach you how to safely get in and out of bed or a chair.
- Show you how to use a walker or cane.
- Determine what adaptive equipment you may need after you are discharged from the hospital.
- Help you get started doing exercises to regain your flexibility, balance, and strength.
- Assist you in adjusting activities of daily living while you are healing, such as bathing and dressing.
- Educate you on your plan for safety, exercises, and conditioning for your rehabilitation.
- Answer any questions that you have about your rehabilitation both in the hospital and following discharge from the hospital.

## Options for rehabilitation

Therapists are involved in discussions with your physician and care manager to assist you in making the safest decision for where you will recover after leaving the hospital. Your options following discharge include:

- Going home
- Going home with home health (depending on your surgeon's preferences)
- Going to a rehabilitation facility for a brief time (if insurance approves) where you will get daily therapy

## Starting formal physical therapy

- Formal physical therapy usually begins 6 weeks after surgery, but this may be later depending on what type of surgery you had.
- Therapy may be done close to your home at any location you choose.
- You will be given a formal prescription with instructions for your therapist.

# Discharge from the Hospital

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## Rehabilitation facility

You may require care 24 hours a day following your surgery. Your care team may recommend a short term place for you at a local rehabilitation facility. At the facility, you will receive therapy several times a day, along with needed skilled nursing services.

If your medical and therapy team recommend a rehabilitation facility, your care management team will assist with facility and insurance coordination. If you are not approved or do not qualify for a rehabilitation facility, your care management team will help you navigate a home discharge plan.

## Home healthcare

Home healthcare involves skilled healthcare workers coming into your home for a short time to provide care in addition to the care your family and friends are giving you. If your surgeon recommends this service, this may include physical therapy, occupational therapy, and registered nurses for dressing changes and wound care. Home healthcare may be a good option for you if you are able to walk around your home, but are not able to leave home for long periods of time.

Your care manager will provide you with a list of home health agencies in your area. The chosen home healthcare agency will also coordinate with your insurance company to authorize a first visit to assess you, called an initial home healthcare assessment, based on your plan's coverage.

# Home Exercise Plan

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**Your goal is walking 30 minutes twice a day.** If your activity level was low before surgery, you may have to start with 5 minutes and increase how long you walk over time. Let your comfort level be your guide.

Please continue your bed exercises (may be done on couch or recliner) and incentive spirometer (you may take this home from the hospital) every hour you are awake.

**Please do not do any exercises that involve your core for at least 6 weeks.** Your core muscles are in and around your torso and help move, support, and stabilize your spine, trunk, and pelvis. They include muscles that make up your pelvic floor, mid and lower back, and abdomen.

# Home Care Instructions

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## Incision care

Most incisions are closed with skin glue or sutures or staples.

- Check your incisions at least 2 times each day for signs of infection. Contact your surgeon's office if you have:
  - Fever greater than 101 degrees F (38.3 degrees C)
  - Drainage from the wound
  - Opening of the wound
  - Increased redness and/or tenderness
- You have a bandage, also called a dressing. Change the bandage each day for 5 days starting on day 2 after surgery (day of surgery is day 0).
  - Use a sterile 4 X 4 gauze with paper tape or island dressing.
  - Always wash your hands before changing your dressing to help stop infection.
- If you have Steri-Strips, allow them to fall off on their own. If they haven't fallen off in a week, have your support person wash their hands and then peel them off.
- If you have sutures or staples, you will need to return to the office 10 to 14 days after surgery to have them removed. This may be done by a visiting nurse, family physician, or at the facility you are at for rehabilitation.
- The skin glue will look shiny and it sometimes will stick to your clothes. Cover it with a dry gauze pad and secure with tape as needed to prevent irritation.
- Check your skin often for signs of redness or swelling. Tell your doctor if you have more pain, numbness or tingling, or redness that does not go away.

- You may apply an ice pack to the surgery site for 20 minutes 3 times a day for comfort and to reduce swelling, if your surgeon recommends it. It is not recommended that you use heat or a heating pad after surgery.
- If you had your incision closed with plastic surgery, you will follow their instructions for incision and drain care.

## Wearing a brace or collar

- If you are given a brace or cervical collar after surgery, review the instructions for how to put it on and when you may take it off.

## Bathing/showering

- Keep your wound clean and dry.
- You may be able to shower 5 days after surgery, if your wound has been dry and without drainage at least 48 hours.
- When you are allowed to shower is up to your surgeon. Please refer to your After Visit Summary you receive at the time of discharge.
- You can wash your hair while you are in the shower.
- Keep your incision dry and out of the direct stream of water for the first 3 weeks.
- After your shower, pat the wound dry.
- Do not submerge your incision in a hot tub, bathtub, or pool until you are told it is okay.

## Medicines

- Prescribed medicines should be taken only as directed. Take all medicine with food in your stomach unless otherwise directed. If you experience any abnormal reaction to the medicine, discontinue the medicine and contact our office.
- As your pain lessens, you should decrease the amount of pain medicine you are taking. We suggest you substitute the narcotics with over the counter Tylenol as your pain lessens.
- Do not stop taking your narcotics abruptly since this may cause withdrawal side effects.
- Narcotic pain medicines will not be refilled after normal working hours (8:30 a.m. to 4:30 p.m., Monday through Friday) or on weekends. Please allow 24 hours for refill of any medicines.
- Do not drive while taking narcotic medicines.
- Do not drink alcohol beverages while taking prescription pain medicines.
- You should resume the medicines you were taking before surgery after you get home, unless otherwise instructed. If you have any questions regarding these medicines, please contact your doctor.
- If you are prescribed stool softeners, take them as directed.

## Dental care after surgery

It is best to avoid elective dental work for a period of time after spine surgery. Please ask your surgery team for recommendations.

### For patients who had a fusion:

- DO NOT take anti-inflammatory medicines such as aspirin, ibuprofen (Advil), or naproxen (Aleve) as they are known to inhibit bone healing, unless told to take by your doctor.
- DO NOT smoke or use other tobacco products for at least 3 months (ideally quit altogether) since nicotine hurts wound and bone healing. Using products that have nicotine significantly increases your risk for wound and fusion problems.

## Prevent blood clots

- Do your exercises every hour.
- You may be given a prescription for an anti-coagulant, also called a blood thinner, to prevent blood clots from forming. This medicine is often taken for 30 days, but your doctor will decide how long you need to take it.
- **While you are on anticoagulant medicine, do not take more aspirin or products with aspirin than what you are told by your doctor.**

## Waterbeds

Do not use a waterbed after surgery until your doctor approves.

## Activity

- Avoid bending, twisting, pushing, pulling, or lifting more than 5 to 10 pounds. A gallon of milk weighs about 8 pounds.
- **Walk twice a day for 30 minutes total using a walker or cane as needed. When possible, your goal is to walk a total of 60 minutes in 1 day (NOT all at once).**
- Avoid sitting or standing for more than 30 minutes at a time for the first 2 weeks.
- If you were provided a brace, please wear it as instructed by your doctor.
- **Do not do exercises that involve your core** until you are cleared by your surgeon.

## Sitting

- Avoid sitting longer than 30 to 60 minutes at a time. Get up often to walk and change your position.
- During long car trips, stop every 30 to 60 minutes to get out of the car and move around. These breaks prevent stiffness and swelling, which could cause blood clots to form.

## Climbing stairs

During the first few weeks at home, limit climbing stairs to 1 round trip a day. Follow the directions for stairs provided in this book.

## Recommended activities

- **Exercises taught by your physical therapist and walking** are good activities to start.
- Do not do any sports until you have your doctor's okay. Talk to your doctor about the sports you may be interested in.
- Do not use exercise equipment, whirlpools, or spas until approved by your doctor.

## Activities to avoid

Your back can be damaged or worn out by rough treatment. Exercise to keep your muscles and ligaments strong.

There are activities that may cause more stress on your back and should be avoided. These include:

- Jogging or running
- Contact sports
- Activities that use your core, or the middle area of your body
- Racket sports
- Lifting objects weighing over 5 to 10 pounds

## Water walking

When your doctor feels that your incision is well healed, often 6 weeks after surgery, water walking may be recommended. Do not walk in water until you have your doctor's permission.

If you have access to a pool, water walking can be relaxing and strengthens the muscles in your hips, knees, and legs. Enter the pool to chest high water. Hold onto the side of the pool and walk for 15 to 20 minutes. Repeat 3 to 5 days each week.

## Sexual activity

- Many patients are concerned about safe positions for sexual intercourse following surgery.
- It may take several weeks before you feel ready for sexual activity. Do NOT resume sex until cleared by your surgeon.
- A few tips before engaging in sexual activity:
  - Take a mild pain medicine about 20 to 30 minutes before sex. This can help prevent minor aches. Avoid taking medicines so strong that it masks pain.
  - Have pillows and rolled towels nearby. They can be used for body support.
  - Relax. Do a few easy stretches within a safe range of motion.
  - Communicate. Your partner should know about any precautions you may have. Be open with your partner about your level of comfort, your concerns, and your anxieties.
  - Patient on bottom and partner on top is typically safest after spine surgery.
  - Pillows can be used under the knees for support and comfort.
  - Use pillows for support.

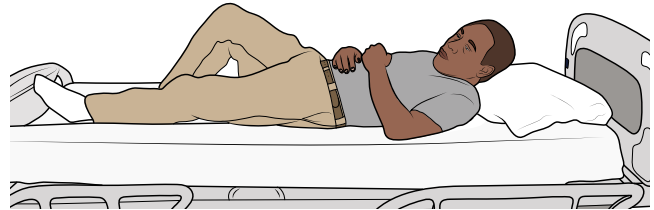
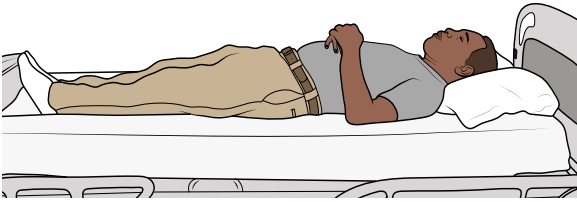
# Getting in and out of bed

## General tips:

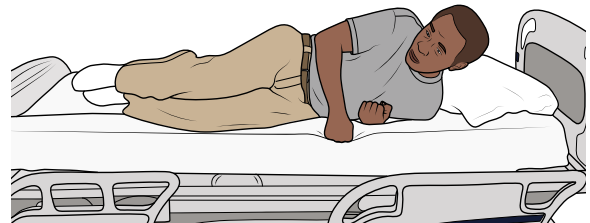
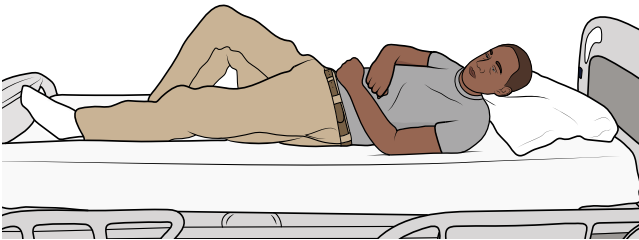
- Do not sit straight up from a lying position, as if doing an ab crunch.
- Use bed rails to give you something stable to hold onto when getting in or out of bed.
- Keep your shoulders in line with your hips.

## Getting out of bed:

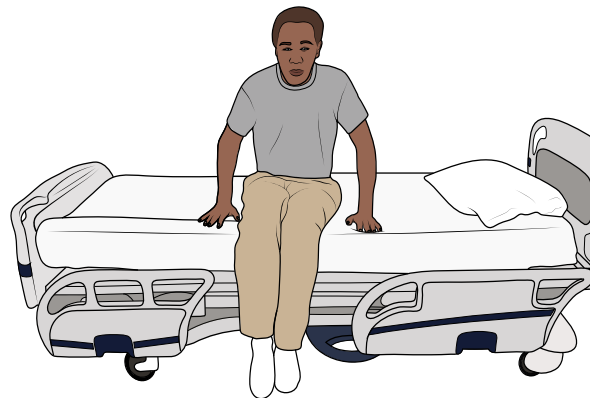
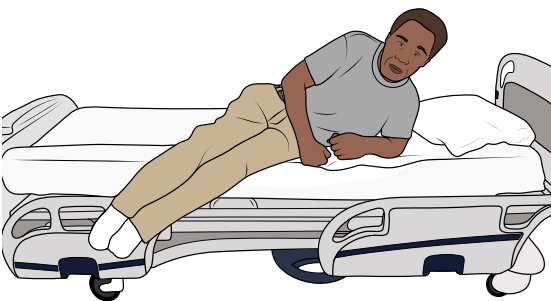
1. While laying on your back, reach your arm across your body and bend the knee that is opposite the side you will roll to.



2. Push your foot into the bed to help you roll onto your side. Hold onto a bed rail, if you have one. Push up with your hand and arm as you gently move both feet off the bed.



3. Place your hand firmly on the bed or grab the bed rail to move into a sitting position.



## Getting into bed: (follow the pictures in reverse order)

1. Sit at the edge of the bed.
2. Lean onto your arm and elbow.
3. Use your own movement (or momentum) to bring your legs up onto the bed.
4. Once your legs are on the bed, lie down on your side, and then roll onto your back.

## Call your doctor right away

As your incision heals, check it every day. Please report any of these signs to your surgeon's office:

- Bleeding, drainage, redness, or swelling from your incision area.
- Severe swelling in the arms or legs.
- Feeling of flu-like symptoms. These are nausea, general body aches, or temperature over 101 degrees F (38.3 degrees C) for longer than 24 hours.
- Severe headache associated with vomiting or light sensitivity.
- Any change in sensation of your arms, hands, legs, or feet (e.g., increase in numbness, tingling, and pain).
- Any loss of bladder or bowel control.
- Urinary tract infection, such as a fever, burning when urinating, or needing to urinate more often.
- Increased leg pain, swelling, warmth or redness, increased heart rate, shortness of breath, or chest pain).
- Not able to walk on your heels or toes, numbness/tingling, weaknesses of the arms or legs, or loss of bowel or bladder control.

**If you experience pain, swelling, and/or redness behind your knees or calves, go to your nearest emergency department as these can be symptoms of a blood clot in your legs.**

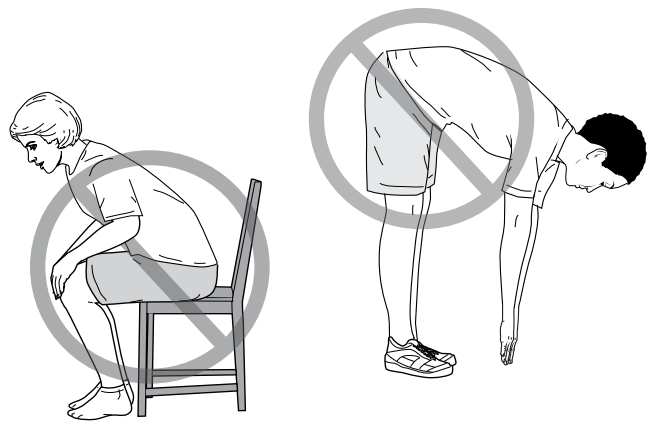
**CALL 911 or go to your nearest emergency department if you: have shortness of breath, are not able to swallow, or have chest pain.**

# Back Precautions After Spine Surgery

Certain positions and movements should be avoided during your recovery after spine surgery, called spinal precautions. This will help to control your pain and prevent injury as your back heals. Your doctor or others on your care team will tell you when it is safe to resume these activities. Overall, this is bending, lifting, or twisting, which you may remember more easily as “no BLT.”

## No bending

- Do not reach, stoop, or bend forward at the waist more than 90 degrees.
- Do not bend from side to side. Be sure to avoid resting in a position that has you bent to the side.

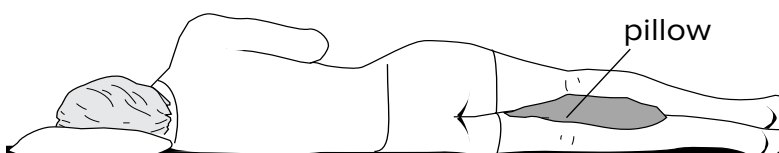
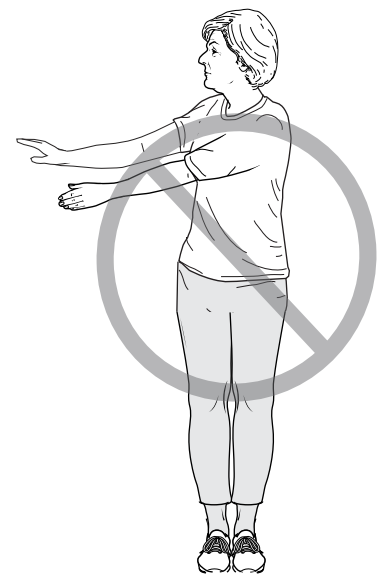


## No lifting

Do not lift anything heavier than 5 to 10 pounds. A gallon of milk weighs about 8 pounds. Hold things close to your body. Do not bend forward or squat down to pick up items off of the floor.

## No twisting

- Do not twist your spine when turning. Shift your feet to turn your whole body instead.
- Log roll to turn over in bed.
- Place pillows between your knees to keep your legs apart. This helps to keep your hips, pelvis, and spine in alignment.



# Nutrition and Wound Healing

**Surgical wounds and pressure sores** are two types of wounds that occur in patients. A surgical wound is from an incision during a surgery or for a test. Pressure sores (pressure ulcers or decubitus ulcers) happen for different reasons, such as not moving enough, poor nutrition, or poor circulation. **Good nutrition is needed to help heal both types of wounds.**

## To help your wounds heal, follow these healthy behaviors

### Increase the amount of calories that you eat

- Talk to your healthcare provider about the amount of calories you should eat.
- Eat 4 to 6 small meals a day.
- Eat a variety of healthy foods to support wound healing. Your healing body needs: protein, the amino acid L-arginine, vitamin A, vitamin C, and the mineral zinc. A balanced diet naturally contains these nutrients.

### Increase your protein intake

- Your body needs extra protein to heal.
- Eat foods rich in protein with every meal and snack.
- Good sources of protein include: meat, poultry, fish, eggs, dairy, beans, nuts, and soy foods.
- **Eat at least 2 to 3 servings each day.** A serving equals 2 to 3 ounces of meat, 1 cup of cooked beans, 1 egg, or 2 tablespoons of peanut butter.
- Protein supplements, like ready-to-drink nutrition beverages, can help you get enough protein. Ask your provider for recommendations.

### Get enough of the amino acid L-arginine

- L-arginine helps your body make protein.
- Good sources of L-arginine include: fish, red meat, poultry, pork, soy, whole grains, beans, and dairy products. The best sources are meat like poultry and pork.
- Most patients get enough L-arginine if they **eat at least 2 to 3 servings of protein a day.**

### Get enough vitamin A

- Good sources of vitamin A include: eggs, sweet potatoes, carrots, peas, broccoli, kale, spinach, collard greens, liver, pumpkin, winter squash, cantaloupe, apricot, papaya, and mango.
- **Eat at least 1 serving a day.**

### Get enough vitamin C

- Good sources of vitamin C include: citrus fruits, orange juice, tropical fruits, such as guava, papaya, and mango, red and green peppers, broccoli, spinach, collard greens, strawberries, tomatoes, and peas.
- **Eat at least 1 serving a day.**

### Get enough of the mineral zinc

- Good sources of zinc include: meat, poultry, some seafood, like lobster and crab, liver, eggs, milk, whole grains, tofu, and fortified cereals.
- **Eat 1 to 2 servings a day.**

## Ask your provider if you need to take supplements to support wound healing

- For most patients, eating a balanced diet naturally provides enough nutrients. In some cases, your provider may recommend that you take an L-arginine or zinc supplement.
- After your wound has healed, talk to your provider about taking a daily multivitamin for your age and gender.

## Drink plenty of fluids unless directed otherwise by your provider

- Drink at least 64 ounces a day. Remember to drink a glass of water or milk with each meal and snack to get enough fluids.

## Manage your blood sugar

- High blood sugar makes it harder for your wounds to heal. Check your blood sugar level as directed if you have diabetes or if you have a history of high blood sugar.

## Sample menu to support wound healing

Meal or Snack	Food
Breakfast	2 scrambled eggs cooked in 1 teaspoon olive oil
	1 to 2 slices whole wheat toast with 1 teaspoon butter
	1 cup sliced strawberries or orange
Snack	1 container Greek yogurt with less than 10 grams of sugar
Lunch	½ sandwich with:
	3 ounces baked meat or poultry
	1 slice cheese
	Tomato, onion, and lettuce
	1 teaspoon lite mayonnaise
	1 cup sliced vegetables, such as bell peppers and carrots with:
	¼ cup hummus
1 small orange	
Snack	1 cup cottage cheese
	½ cup pineapple chunks
Dinner	4 ounces beef chuck roast
	1 cup cooked broccoli with 2 teaspoons olive oil or butter
	1 medium baked sweet potato
Snack	¼ cup any type of nuts
	1 cup diced cantaloupe

This sample menu may not meet all of your calorie, protein, vitamin, and mineral needs. Different amounts of these nutrients may be needed based on your age, gender, medical condition, and the severity of your wound. **Please discuss your diet and supplements with a dietitian or other healthcare provider.**

# Using Your Walker

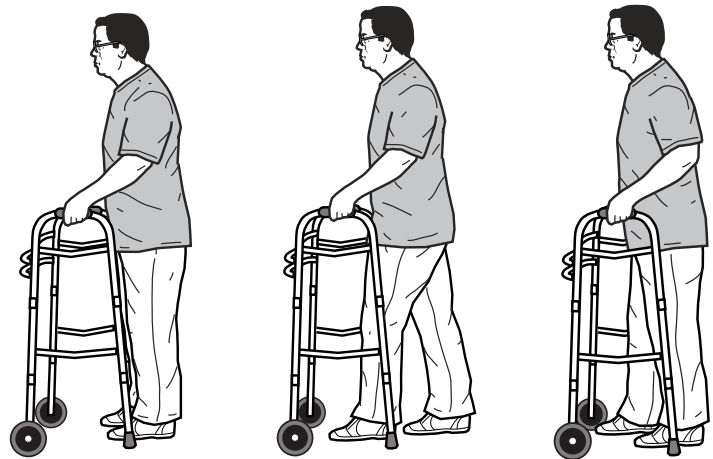
## Standing with a walker

1. Slide your hips forward to the edge of the bed, chair, or toilet seat.
2. Use your arms to push down on the edge of the bed, chair arms, or toilet seat to lift yourself up.
3. Shift your weight and move your hands to the hand grips of the walker.
4. Do not pull yourself up with the walker because you may fall backwards.
5. Make sure you are steady and balanced before taking a step.



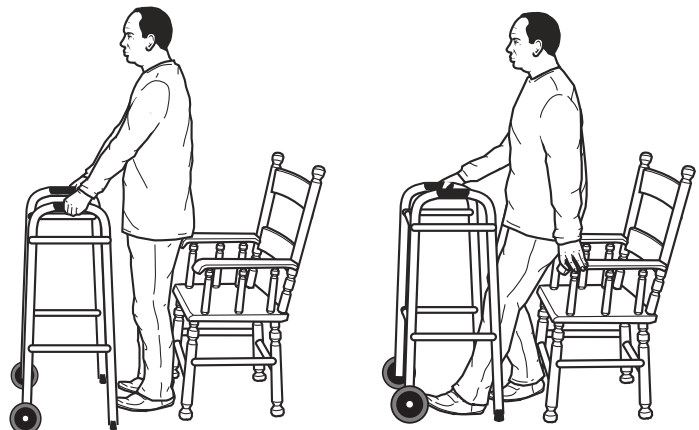
## Walking with a walker

1. Push the walker an arm's length and walk into the walker.
2. Do not take big steps that place you too close to the walker. There should be space between you and the walker at all times. If you are too close, you may lose your balance.
3. Hold your head up and look straight ahead. It is tempting to watch your feet, but more tiring, and you may run into something.
4. Be sure to walk slowly.



## Sitting with a walker

1. Slowly back up to the chair, bed, or toilet until you feel it against the back of your legs.
2. Let go of the walker and reach back for the chair arm, bed, or toilet seat.

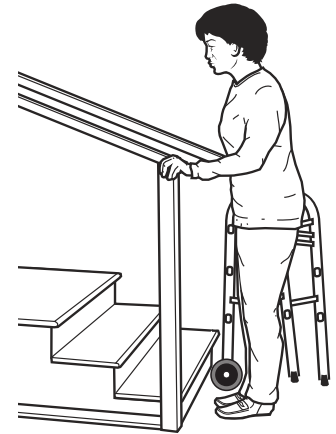
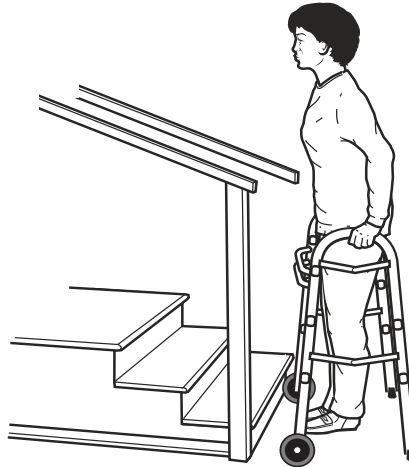


## Going up stairs with a walker

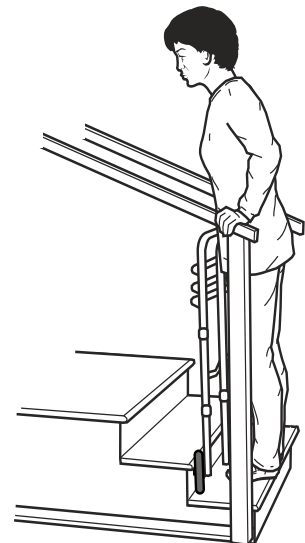
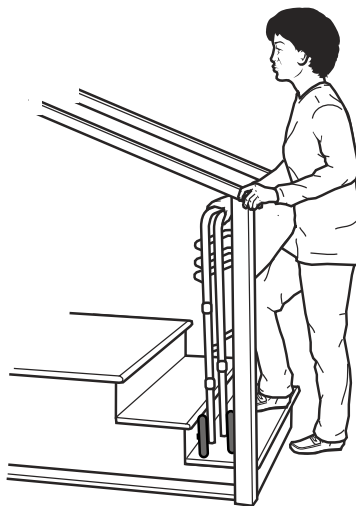
Your therapist will recommend if a walker is recommended to use on the stairs or not.

Always remember when climbing stairs, use the rail and take your time. Start with the leg that seems the strongest going up and the weaker leg going down. When going up and down stairs with a walker, you also should have a sturdy handrail.

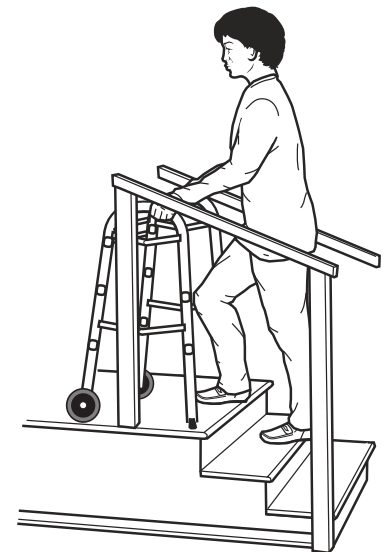
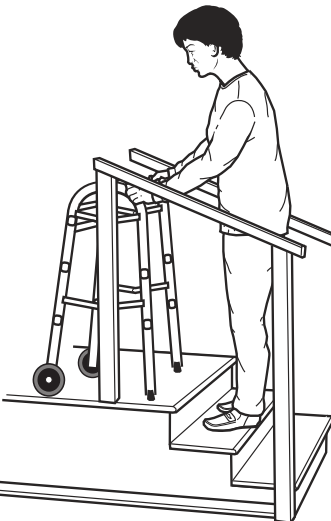
1. Approach the stairs and place your feet about 6 inches from the first step.
2. Fold the walker and place it in 1 hand. Place the other hand on the rail.



3. Lift the folded walker and set it to the back of the step.



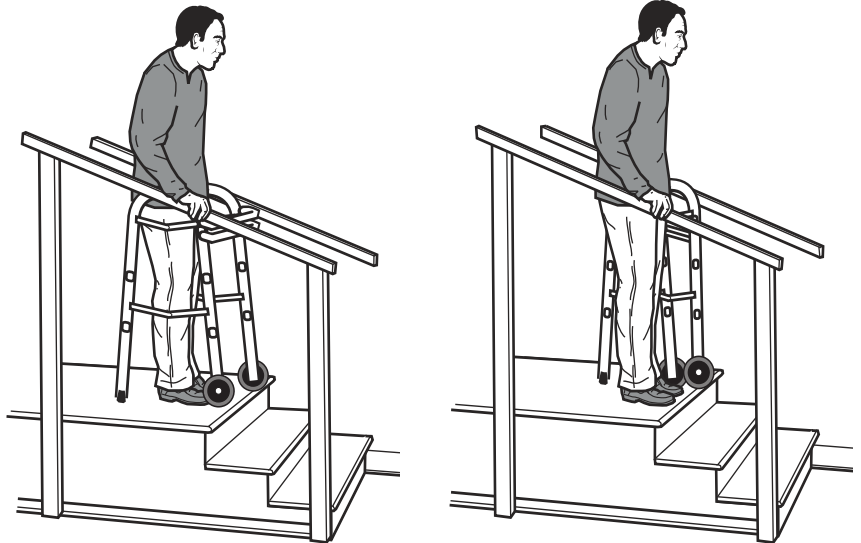
4. Step up first with your stronger leg, and then bring up your other leg.



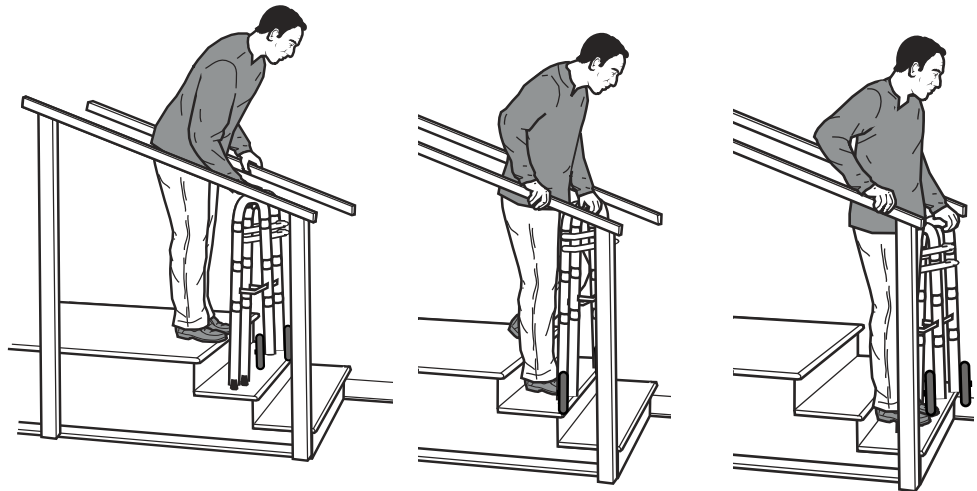
5. At the top of the stairs, unfold the walker and set it on the landing. Make sure that you hear the walker click into the locked position. Place both hands on the walker.
6. Step up first with your stronger leg, and then bring up your other leg.

## Going down stairs with a walker

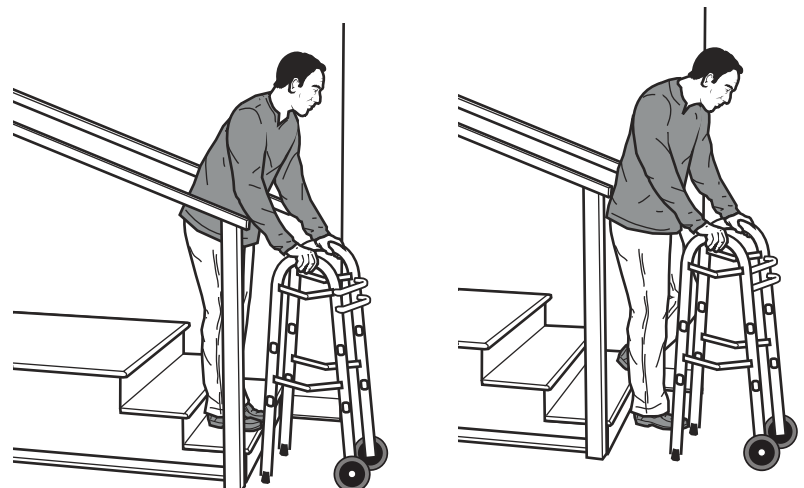
1. Approach the stairs and place your walker about 2 inches from the top step.
2. Fold the walker and place it in 1 hand. Place the other hand on the rail.



3. Set the folded walker down and to the front edge of the step.
4. Step down first with whichever leg seems weaker, and then bring down your other leg.

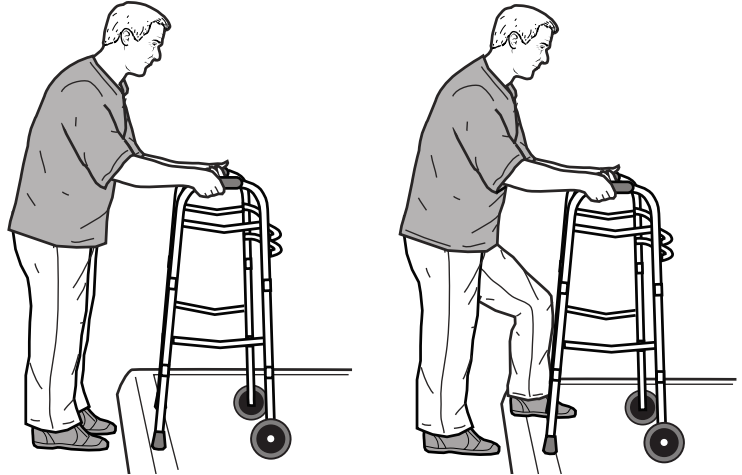


5. At the bottom of the stairs, unfold the walker and set it on the landing. Make sure you hear the walker click into the locked position.
6. Place both hands on the walker. Step down first with your weaker leg, and then with your stronger leg.



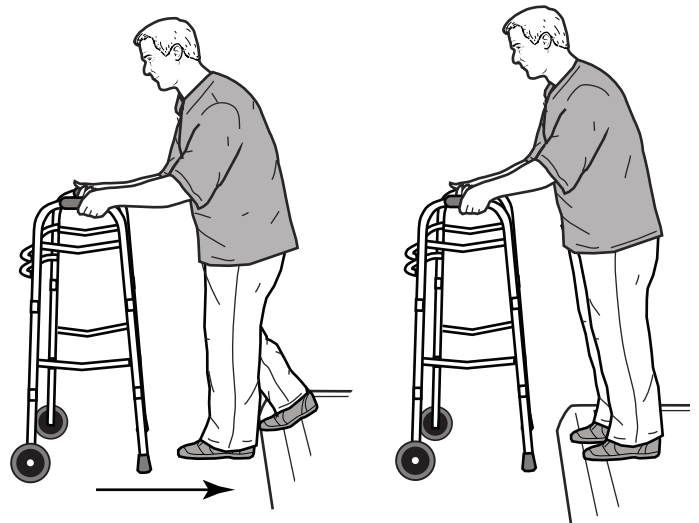
## Going up a curb with a walker: forward method

1. Walk straight up to the curb. Put all 4 legs of the walker on the curb.
2. Push straight down on the walker when stepping up with whichever leg seems stronger then step up with weaker leg.



## Going up a curb with a walker: backward method

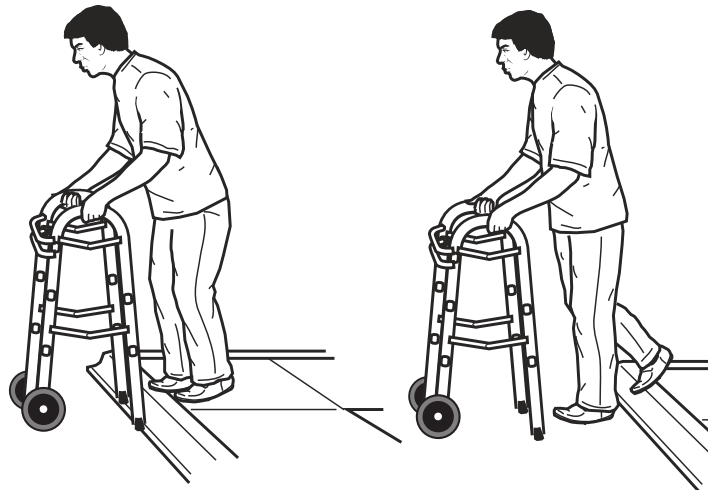
1. Walk up to the curb and turn so your back is to the curb.
2. Step up on the curb with whichever leg seems stronger, then step up with weaker leg.



## Going down a curb with a walker

1. Walk up to the edge of the curb. Put all 4 legs of the walker on the ground below.
2. Step down first with whichever leg seems weaker, and then bring down your other leg.

**Never go down a curb backwards.**



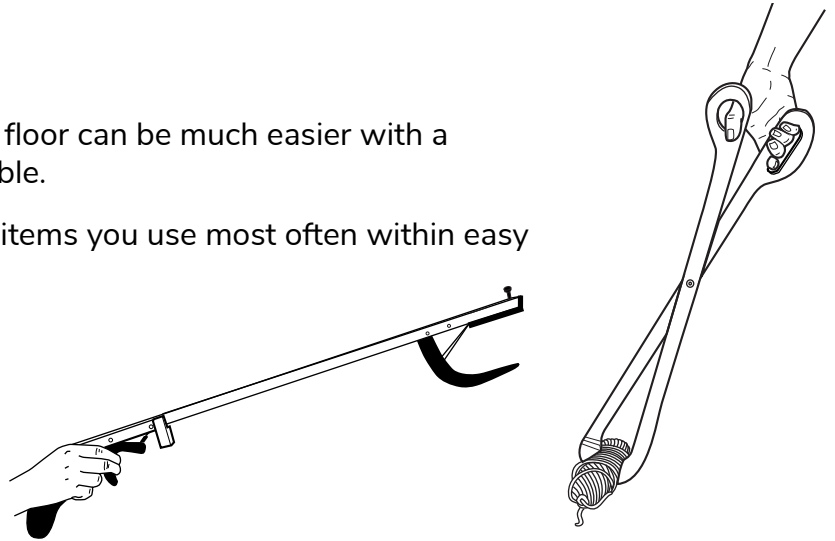
# Using Equipment in Daily Activities

Having some devices may help you with putting on your clothes, shoes, and socks.

## Reacher

Getting things from cabinets or off the floor can be much easier with a reacher. There are various types available.

- Rearrange your cupboards to have items you use most often within easy reach.
- If you cannot get an item with your reacher, ask someone for help.



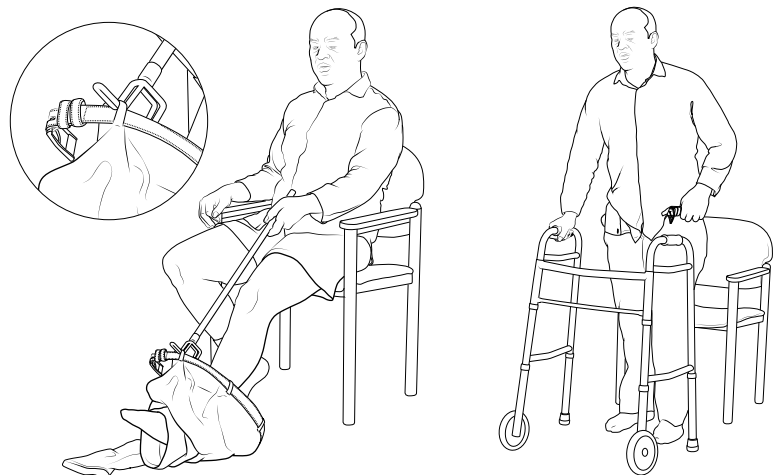
## Dressing

Having some devices can help you with putting on your clothes, shoes, and socks.

- Wear slip-on shoes or use elastic shoe laces.
- A long handled shoe horn will help you put shoes on or take stockings and socks off.
- A **dressing stick** may be used to put on pants.

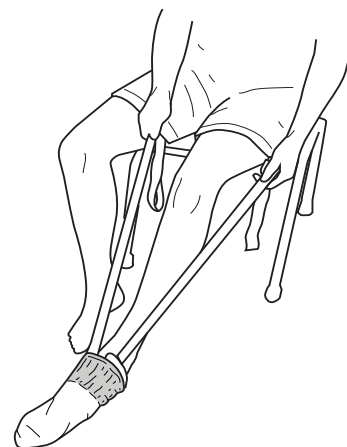


- ▶ Use the hook to catch the waist of underwear or pants.
- ▶ Place whichever leg seems weaker into the pants first when dressing, and take it out last when undressing.
- ▶ Pull the pants up over your knees.
- ▶ Stand with the walker in front of you and pull your pants up.



- Socks and stockings are easier to put on with a **sock aid**.
  - Slide the sock or stocking onto the sock aid. Be sure the heel is at the back of the plastic and the toe is tight against the end.
  - Secure the sock in place with the notches on the plastic piece.
  - Holding the cords, drop the sock aid out in front of your foot.
  - Slip your foot into the sock and pull it on.
  - Release the sock from the notches on the plastic piece, using your dressing stick or reacher.

To take the stocking or sock off, use the hook on the dressing stick or the reacher to hook the back of the sock down over your heel and push the sock off your foot.

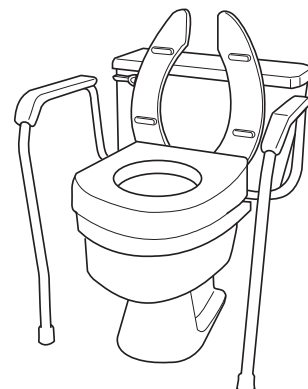


## Getting in and out of bed

- A hospital bed may be needed at home. Your physical therapist, occupational therapist, nurse, or care manager will talk with you about this if needed.
- Some people find it helpful to wear silky material pajamas to help them slide more easily on the sheets.

## Using the toilet

- A raised toilet seat may make it easier to stand up.
- Clean yourself as you usually do, being careful not to twist too much.



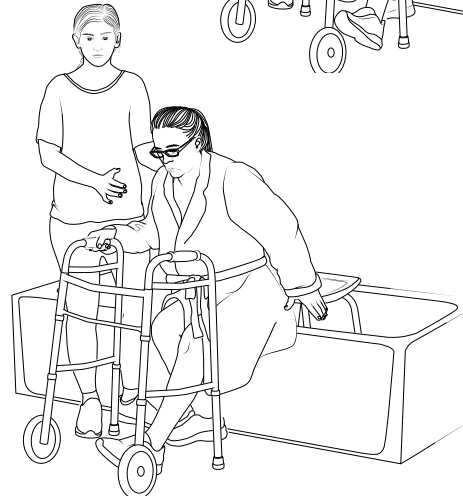
## Bathing

**Do not sit down into a bathtub, pool, or hot tub for 6 to 12 weeks or until cleared by your surgeon.**

- Have someone help you the first time you bathe at home.
- You may sponge bathe at the sink until you are comfortable or have help to shower.
- If you have a walk-in shower or tub shower, you may stand and shower as long as you feel steady and balanced.
- If you need to sit to bathe, you will need a **shower bench**. Make sure the shower bench is placed firmly in the tub. Have someone adjust the height of the shower bench, so it is as tall as it can be to allow you to rest your feet on the floor of the tub when you are sitting.
- Always be sure to turn on the cold water first to avoid burning yourself.
- Have a secure place for your soap to not drop it. Try soap on a rope or a deep soap dish.
- For easier reaching, it may be helpful to use a long handled sponge or bath brush, and a portable shower hose.

## Using a shower bench

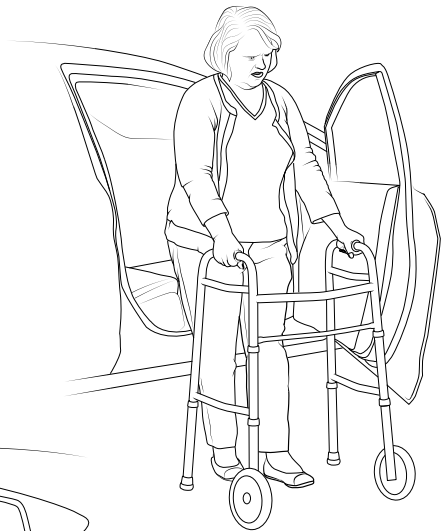
1. Place the shower bench firmly in the tub. Stand with your back toward the tub. Be sure you have someone with you to help you and to hold the bench steady, if needed.
2. Slowly lower yourself onto the shower bench, reaching back to grasp the shower seat. You may also step over the tub and sit on the seat facing the nozzle.
3. Slowly move your trunk around to face the nozzle, bringing your feet around, being careful not to twist too much.
4. Make sure you are in a safe sitting position.
5. To get out of the tub, place your feet flat on the floor before you stand.



## Getting into a car

Know how to safely get into the car. It is better to ride in a mid-size or large car with regular bench seats rather than bucket seats.

- Make sure you stop about every 30 to 60 minutes to get out and walk around, or at least shift your weight from 1 leg to another.
- The best choice after spine surgery is to ride in the back seat.



### To get into the back seat:

- First lower your bottom onto the seat that is part way reclined. Carefully turn without twisting, to get both feet in. You may want to have a pillow behind your back.



# Other Important Information

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## Short term disability or Family Medical Leave Act (FMLA) paperwork

- We will gladly complete FMLA or short term disability forms to cover the period right after your surgery.
- As the patient, you are responsible for obtaining the needed documents from your employer to provide to our office.
- Please allow 10 business days for our office to complete these forms. We also ask that you provide as much information as possible when you fax or drop off paperwork to the office.
- Please be sure to provide the best phone number to reach you, in case we have questions about your paperwork.
- You may also attach the FMLA paperwork as an attachment to an Ohio State MyChart message if you use MyChart.

## Contacting your surgeon and care team

- Office hours are Monday through Friday 8 a.m. to 4:30 p.m.
- Please refer to your After Visit Summary provided at discharge for the phone number to call or send a MyChart message to your surgeon, if you use My Chart.
- If using MyChart:
  - Do not use MyChart for emergencies.
  - Allow up to 72 hours for a response from the care team.
- If calling over the weekend:
  - You may be called by a resident physician.
  - It may take several hours for your call to be returned.

## Long term disability or Workers' Compensation

If you need long term disability forms, work capacity forms, or determination of permanent disability, we suggest that you are seen by Occupational Medicine.

- Proper completion of the paperwork needs a special set of skills and knowledge of the disability guidelines.
- Incorrect completion of the forms could impact your case in a serious way.

**If your case is covered by Workers' Compensation/Bureau of Workers' Compensation(BWC), our surgeons will not serve as your "physician of record." After a work injury, you should already have a doctor of record who will not change.**



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