



Your Hip Fracture Guide

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ORTHOPEDICS
SPORTS MEDICINE

Welcome to Sanford Health Orthopedics

We are honored to care for you. We hope this information helps you recover from your hip fracture. This book is a guide. Your surgeon, nurses, or therapists may change some information in this book to meet your needs. If you have questions, please call and ask any one of your healthcare team to get your questions answered.



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Your Orthopedic Healthcare Team

Your healthcare team helps get you back on your feet by preparing you for surgery and recovery. You and your family are important members of the care team. Please let us know if you need anything. We have many team members who work with you and your coach for a successful recovery. Your team may include the following:

- **Orthopedic surgeon** performs your hip surgery and manages your care.
- **Resident** (a doctor in training) may assist your surgeon as part of your care team.
- **Physician Assistant** may assist the orthopedic surgeon with your surgery and helps in managing your care.
- **Nurse Practitioner** may assist the orthopedic surgeon with your surgery and helps in managing your care.
- **Anesthesiologist** gives you medicine during surgery to prevent you from feeling pain.
- **Medical doctor/hospitalist** may help in managing your care.
- **Nursing staff** will care for you before, during, and after your surgery. They will help keep you comfortable and safe while you are with us.
- **Physical Therapists (PT)** will guide you through an exercise program to improve your strength, range of motion, and walking. They will teach you how to use a walker or other appropriate walking device and how to go up and down stairs safely.
- **Occupational Therapists (OT)** teach you the best and safest ways to do daily activities such as:
 - Getting dressed
 - Getting in and out of a chair, bed, tub, or shower
 - Getting on and off the toilet
 - Doing household tasks such as cooking, cleaning, and pet care
 - Helping you choose equipment needed during your recovery
- **Case management team** will help plan your move from the hospital to your home or next level of care. They will also arrange for any equipment or services you will need.
- **Pharmacist** will oversee your home and hospital medicine. If needed, they will teach you about your medicine before you leave the hospital.

Other team members may include dietitians, chaplains, lab technicians, transporters, and respiratory therapists. The healthcare team works together to help you recover as quickly as possible.

Things to Consider Having Your Family Bring to the Hospital

Personal Items

- Cases for your glasses, dentures, and/or contact lenses. Label the containers with your name to keep them safe when not in use.
- Things that help you feel comfortable and support your healing. Some examples may be music, pictures, or religious material.
- Loose, comfortable clothes.
- Walking shoes.

Personal Medical Equipment

- If you use a CPAP machine for sleep apnea, bring the machine and cord. Also, bring your CPAP tubing, mask, and settings.
- Devices you use to walk at home such as a cane, walker, or brace.

Options to Protect Your Valuables

Send your valuables (for example checkbook, wallet, credit cards, large amounts of cash, jewelry, and sentimental items) home with your family or ask your nurse to place your valuables in the hospital safe. You will be spending time in therapy and away from your room. You are responsible to keep track of your items.

About Your Hip

Knowing about your hip and how it works will help you to understand about your hip fracture. Your hip is one of the largest weight-bearing joints. When your hip is healthy, it helps you to walk and turn.

A Healthy Hip

Your hip is made of two parts, the head of the long bone of your thigh (femur), and the cup (socket) in the pelvic bone. This is called a ball and socket joint. They work together to make sure there is smooth motion and function.

A healthy hip is made up of the following parts:

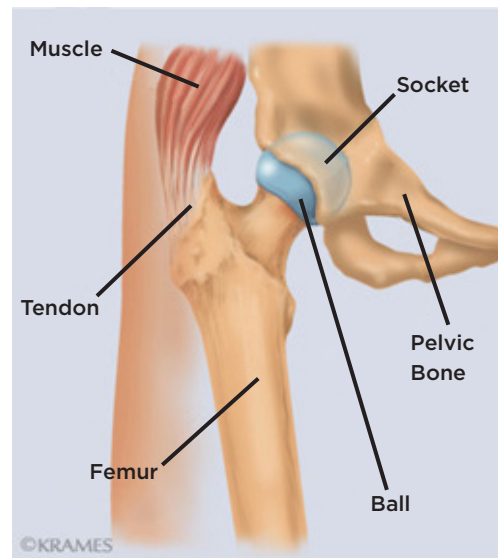
- **Cartilage** – a slippery, strong flexible tissue. It is found where the bones meet. The cartilage helps the bones to glide over each other when the hip joint bends.
- **Tendons** – tough bands of tissue that attach the muscles to the bones.
- **Muscles** – are needed to help move and support the hip joint.

Hip Fracture

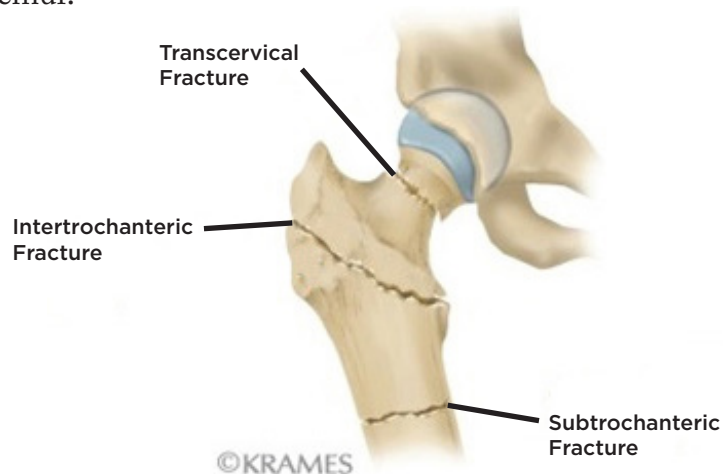
A hip fracture is a break in the upper part of the femur (thigh) bone. Sometimes an injury can be caused by something as simple as losing your balance and falling. A fall may cause a hip fracture or the hip may break first, causing a person to fall.

The hip can fracture in many places. Most often, the fracture occurs in the upper part of the femur. In rare cases, you can also have more than one type of fracture at a time:

- **Transcervical (or Femoral Neck) Fracture** (trans-ser vi-kal | frak chur) – A break across the top of the femur, just under the ball that fits into the socket. This type of fracture can stop the blood flow to the joint.
- **Intertrochanteric Fracture** (in ter-tro kan-ter ik | frak chur) – A break down through the top of the femur.
- **Subtrochanteric Fracture** (sub-tro kan-ter ik | frak chur) – A break across the long part of the femur.



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Before Surgery

It is important to find out about your fracture. X-rays are most often done to see if the hip is broken and the type of fracture. The orthopedic surgeon will use X-rays to decide:

- If you need surgery
- The type of surgery that is best for you

In a few cases, X-rays may not show the fracture. If the hip continues to hurt and the doctor thinks that you have a hip fracture, a CT scan, sometimes called CAT scan, is most often done. CT uses special X-ray equipment and computers to take pictures.

If needed, an MRI may be done.

The MRI scanner uses magnetic waves to take pictures of the hip bones.

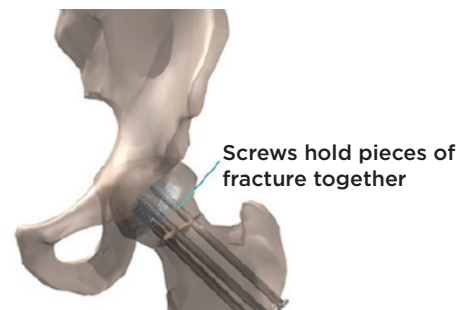
Treatment Options

There are many ways to treat the different types of fractures. Most hip fractures are treated in one of these ways:

- Metal pins
- Metal plate and screws
- Metal rod and screws (IM nail)
- Replace the femoral head (ball and stem)
- Replace the femoral head (ball and stem) and the acetabulum (socket)

Metal Pins

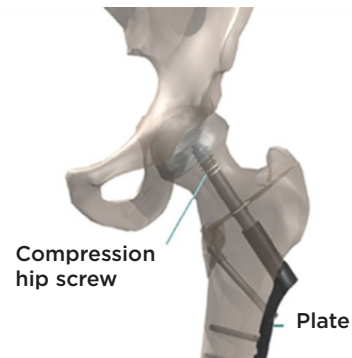
Fractures through the neck of the femur, if the bones stay in the correct position, may need only two or three metal pins to hold the two pieces of bone together. This is called a hip pinning.



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Metal Plates and Screws

Some hip fractures happen below the femoral neck. They often are the hardest type of fracture to treat because there is more than one break. Several pieces of broken bone must be held together. A plate on the outside of the bone and screws are used to hold the pieces in place.



Intramedullary (IM) Nail

A rod is placed down the middle of the bone and screws are used to hold the rod in place.



Artificial Replacement of the Femoral Head

(Partial hip replacement – hemiarthroplasty [hem e ar thro-plas te])

When the hip fractures through the neck of the femur and the ball is completely broken off, the blood supply to the femoral head may have been damaged. Most surgeons will recommend removing the ball and replacing it with a ball made of metal. The stem is placed on the inside of the bone to hold the ball in place. The socket of the hip joint is left in place.

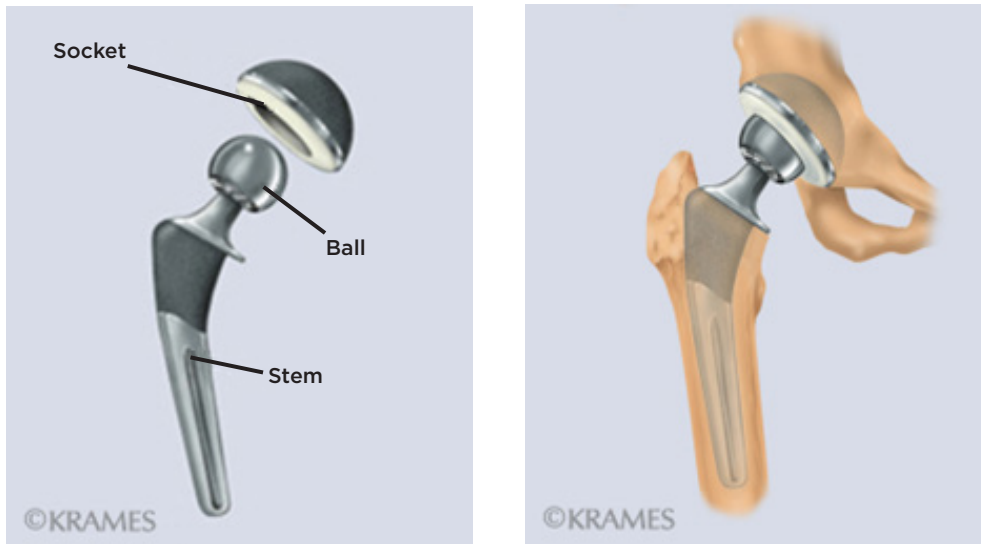


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Artificial Replacement of the Femoral Head and Acetabulum

(Total hip replacement)

There may be times when both surfaces of the joint need to be replaced. In a total hip replacement, the socket and the ball of the hip joint are both replaced giving you a new joint.



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After Surgery

Your Role

When it comes to recovering from surgery, much of the work is up to you. Your healthcare team will help as much as they can, but you have the biggest role in making your surgery successful. You will need to take care of your body after surgery. Following your doctor's orders before and after surgery will make a big difference in your recovery. Your doctor may have given you instructions to limit or stop putting weight on your leg. It is very important to follow the weight restrictions you were given to make sure your hip heals correctly.

In Your Hospital Room

After surgery, you will be taken to a hospital room where your family or support person can join you. You will begin moving around and sitting up on the edge of the bed as soon as possible. Your plan of care will be reviewed with you. You will be watched closely to keep you safe.

Equipment Used in the Hospital

Here is some of the equipment that may be used:

- An IV line to give fluids and medicine
- Oxygen tubing and oxygen monitor
- An incentive spirometer to help you breathe deeply and prevent respiratory infections like pneumonia
- An ice therapy machine or ice pack to reduce pain and swelling
- A sequential compression device (SCD) to help blood flow in your legs and prevent blood clots
- A commode chair or raised toilet seat

Pain Management

Having a hip fracture can be a painful process. Our goal is to help manage your pain. You will be asked to rate your pain on a scale of 0 to 10 (10 being the worst). Your surgeon will decide which type of pain medicine is best for you. You will be given pain medicine that has been ordered by your surgeon. When your pain is well managed, you are better able to perform your daily activities. Tell your nurse if your pain is not controlled well by this medicine.

Pain Medicine After Surgery

It is important to work with your healthcare team for good pain management. When you begin therapy, your nurse will give you a pain pill about 30 minutes before your session. Tell your nurse or surgeon about:

- Your pain. Do not wait until your pain becomes severe.
- The pain control methods or medicines that have helped you in the past.
- Any concerns you have about taking pain medicines.

Other Methods For Pain Management

Here are other ways to have good pain control:

- Using cold therapy or ice
- Changing your position or walking
- Listening to music
- Using integrative therapies such as aromatherapy, acupressure, guided imagery, or the music relaxation channel on the television
- Anything you have found helpful at home

Preventing Falls During Your Hospital Stay

Our goal is to keep you safe from a fall. After surgery, you are at a high risk of falling.

Falls can happen because of:

- Changes in your balance caused by the surgery
- Using new equipment like walkers or crutches
- Taking pain medicine

Call, Don't Fall

Do not get up without help.

Call the nurse before you get out of bed and when you are done in the bathroom. We may use a bed alarm during your stay to remind you to call for help. Staff will check on you often to keep you safe. A fall may result in a longer stay in the hospital or even another surgery. Remember, the hospital is not your familiar environment. You may be connected to cords, pumps, or other equipment. Even if you no longer need therapy, you still need to ask for help to get up or walk.

Preventing Infection

Infection can be a serious problem after surgery. You can help prevent infection by:

- Cleaning your hands with soap and water or hand sanitizer. Clean your hands:
 - Before touching your incision (surgical cut) or changing your dressing
 - After using the toilet or blowing your nose
 - After doing laundry, housework, or yard work
 - After petting or caring for animals
- Making sure your healthcare team washes their hands before and after they take care of you.
- Making sure your family and friends wash their hands.
- Brushing your teeth at least 2 times a day. Bacteria from cavities or gum disease can be a source of infection. **It is important to talk with your surgeon about your dental care after having surgery.**
- Being aware of any cuts, scrapes, sores, or redness. These could be a path for germs to get into your system.
- Recovering from colds or sinus trouble. This is another common place for germs to be in the body.
- Treating bladder infections. If you have cloudy urine, your urine smells strong or it burns when you pass your urine, you may have a bladder infection. This will need to be treated before surgery. Tell your surgeon if you have any of these symptoms after surgery.

Care of Your Incision

Most often, it takes about 2 weeks for your incision to heal enough to stay closed. If you have sutures or staples, they will be removed about 2 weeks after surgery. Over the next 6 to 8 weeks, your incision may feel tight and itchy, which is part of normal healing. **It is common to have more swelling and pain 4 to 7 days after surgery**, which is often after you leave the hospital.

After about a week, swelling and pain will get better day by day. You will continue to have some swelling over the next 6 to 12 months.

To Care For Your Incision:

- Keep your dressing clean and dry.
- You may shower (consider a shower chair). Refer to the instructions you were given.
- Do not soak the hip or take baths until your surgeon tells you it is okay.
- Wear loose clothing that is easily washed and does not rub or irritate the incision.
- Never dab lotion, ointment, powders, or perfume on the incision.

Preventing Pneumonia

Take deep breaths every hour while you are awake to clear the anesthesia from your lungs and help prevent pneumonia. If you have an incentive spirometer, use it as directed. You will start this in the hospital. You will also sit up in and get out of bed to help prevent pneumonia. You will need to continue these activities after discharge until you are walking around about every hour during the day.

Preventing Blood Clots

A deep vein thrombosis (DVT) is a blood clot that can form in a leg vein after hip fracture repair surgery. A piece of the clot can break off, travel through the blood stream to the lung, and can cause death. Your doctors **may** tell you to use:

- A sequential compression device (SCD) that improves your blood flow by gently squeezing and releasing your leg or foot.
- Compression stockings (TED hose) or ACE wraps.
- Medicine to prevent clotting.
- Activity to help increase circulation:
 - Ankle pumps while lying in bed
 - Walking often

Preventing Constipation

A side effect of taking pain medicine is constipation. Decreased activity can also lead to constipation. To avoid becoming constipated:

- Gradually increase your intake of fiber-rich foods such as fruits, vegetables, and whole grains.
- Drink 8 or more 8 oz. glasses of fluids each day.
- Stay as active as you can.
- Consider drinking prune juice each day.
- Take a stool softener or laxative as instructed by your provider. Many of these are available over-the-counter at your local store. If you have questions, ask your doctor or pharmacist.

If constipation problems continue, call your doctor. Check with your doctor or nurse before giving yourself an enema.

Rest or Sleep

After surgery, you may have a hard time sleeping. Taking your pain pills around bedtime controls your pain so you can stay asleep. Rest will help you get your strength back more quickly. Here are some tips to help you rest:

- Go to bed at the same time each night.
- Stop and rest for a few minutes after activity.
- Take short naps or rest periods when you are feeling tired.



Quitting Tobacco Use

Tobacco use, whether in cigarette, e-cigarette, pipe, cigar, or chew form greatly increases the risk of complications from surgery. If you use tobacco **now** is the time to quit. Your immune system, your circulation, your airways, and your lungs are damaged by tobacco use.

Reasons to Quit

- Your recovery may go better. Tobacco raises your chances of having problems after total joint replacement surgery. Those who use tobacco have an increased risk of:
 - Bones not healing
 - Pain needing more narcotic use
 - Medical complications after surgery (Examples: Blood clots, increased blood pressure, increased heart rate , and risk of infection)
 - Osteoporosis
- You will lower your risks of heart attack, stroke, many forms of cancer, and lung disease.
- You will feel better and breathe easier.

Resources to Help You Quit

Quitting is hard, but do not give up. It may take more than one try to quit for good. It is important to have a plan. Ask your doctor, nurse, respiratory therapist, or pharmacist for help.

- National Quit Line (800) QUITNOW (784-8669) For Deaf and Hard of Hearing Callers: Relay 7-1-1
- Freedom from Smoking Online: www.ffsonline.org
- National on-line website: www.smokefree.gov
- Guide to Quitting Smoking: www.cancer.org

Maintaining Healthy Bones

Nutrition

Good nutrition helps wound healing. Vitamins in fruits and vegetables and protein in meat and fish will build new tissue and prevent infection. It is important to get enough calories and protein in your diet to heal.

Your Appetite

For a few weeks after surgery, you may notice that you do not have an appetite or that food tastes different. Your appetite will improve over time. Calories are needed for healing and for energy.

- If your appetite is poor, eat smaller meals instead of large ones. Eating smaller portions 5 or 6 times a day may help you get the nutrition that you need. Try for 3 meals and 2 snacks every day.
- Try a nutritional supplement, such as protein bars or protein shakes, for a snack.
- Eat something before physical therapy.
- It is important to drink plenty of fluids such as water, juice, and non-caffeinated beverages.

Eat a Balanced Diet

The My Plate website can help you choose the best types and right amounts of foods to eat. Your nutrition needs may be different depending on your gender, age, and activity level. Visit www.choosemyplate.gov to find specific guidelines for you.

Why You Need Calcium

Calcium is important to prevent osteoporosis. If you have osteoporosis, your bones can become weak and break easily.

Healthy habits can affect how well the body is able to use calcium.

- Exercise helps the body to use calcium and makes the bones stronger.
- Your body needs vitamin D for healthy bones. Your doctor may recommend Calcium and Vitamin D supplements to maintain your calcium levels.
- Ask your doctor about screening for osteoporosis.



Preparing for Discharge

After surgery, all patients will have rehabilitation to strengthen and increase movement in their joint. Every patient is different. Rehabilitation may vary. Your surgeon along with your healthcare team members will visit you in the hospital to discuss what level of care is best for you.

Outpatient Rehabilitation

Outpatient rehabilitation services are available when you are able to return home but need additional therapy to improve your strength, function, and activities of daily living.

Home Health Care

Home health care is a service that allows a nurse or therapist to come to your home to help with your rehabilitation. Home health care services are ordered for patients who are unable to leave their home for continued therapy.

Inpatient Rehabilitation Facility

An inpatient rehabilitation facility may be used if you need more care for your hip following surgery. With a discharge goal of returning home, your doctor, nurses, and therapists will work with you to gain strength and skills to take care of yourself.

Skilled Nursing Facility

A Skilled Nursing Facility (SNF) is for patients who cannot return home and need further rehabilitation. When your doctor feels you are ready for SNF level care, your case management team will help in making the transition.



Leaving the Hospital

- Remember to ask for a pain pill before you leave the hospital. This will make the ride home more comfortable.
- Plan to wear loose-fitting street clothes that do not have tight elastic at the waist or ankles.
- Sit in the front passenger seat of the car and recline the backrest a little.
- Always wear your seatbelt.
- If you are traveling a long distance, plan to get out of the car and stretch every hour. This will keep you from getting too stiff and will help prevent blood clots in your legs.
- When you are discharged, you can expect to be given
 - Written instructions for how to care for yourself and when to call the surgeon
 - Prescriptions for pain and blood thinner medicine as ordered by your surgeon
 - Follow-up appointments
 - Do not drive until your surgeon tells you it is ok to do so.

When to Call Your Surgeon

Call your orthopedic clinic if:

- Your lower leg or toes feel numb, tingly, cool to the touch or are pale
- You have a fever over 101 degrees Fahrenheit (38.3 degrees Celsius)
- Your incision:
 - Has increased redness
 - Is hot to touch
 - Is more painful than it has been
 - Oozes new drainage or smells bad
 - Bleeds enough to come through your bandage
- Your pain medicine is not managing your pain
- You have side effects from your medicine such as an upset stomach, throwing up, redness, rash, or itching
- You have pain or swelling in the calf of either leg
- The edges of your incision come apart
- You have any questions or concerns about your health

If you experience chest pain, heart palpitations (faster than normal heartbeat), or trouble breathing,

Call 911

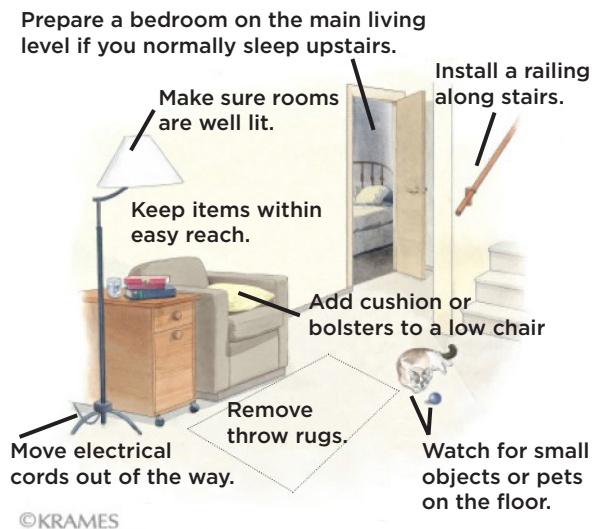
Preventing Falls

Make your home safer and more comfortable for your recovery. Ask a friend or family member to help you. It is important to do what you can to lower your risk of falling.

Home Safety

Prevent falls and other injuries by making a few simple changes around your home.

- Always keep your cell phone or cordless phone with you.
- Keep your walker, cane, or other assistive walking device within reach at all times.
- Use chairs with straight backs and sturdy arm rests which make it easier to stand.
- Raise the seat height of a low chair by adding a cushion.
- Clear clutter from pathways so you do not fall.
- Ask someone to help clean up spills.
- Remove throw rugs.
- Tape down electric cords or tuck them behind furniture.
- Use a night-light or have a light source in every room.
- Move the items you use most often to counter height to avoid excess bending or reaching.
- Ask others to help
 - Clean your house.
 - Do your laundry.
 - Get groceries - many grocery stores will deliver an order right to your door. Contact your local grocery store for more information.
 - Prepare meals.
- Tie a bag to your walker to carry your items.
- Wear shoes that fit and will not fall off your feet when you walk. Do not walk around in your socks.



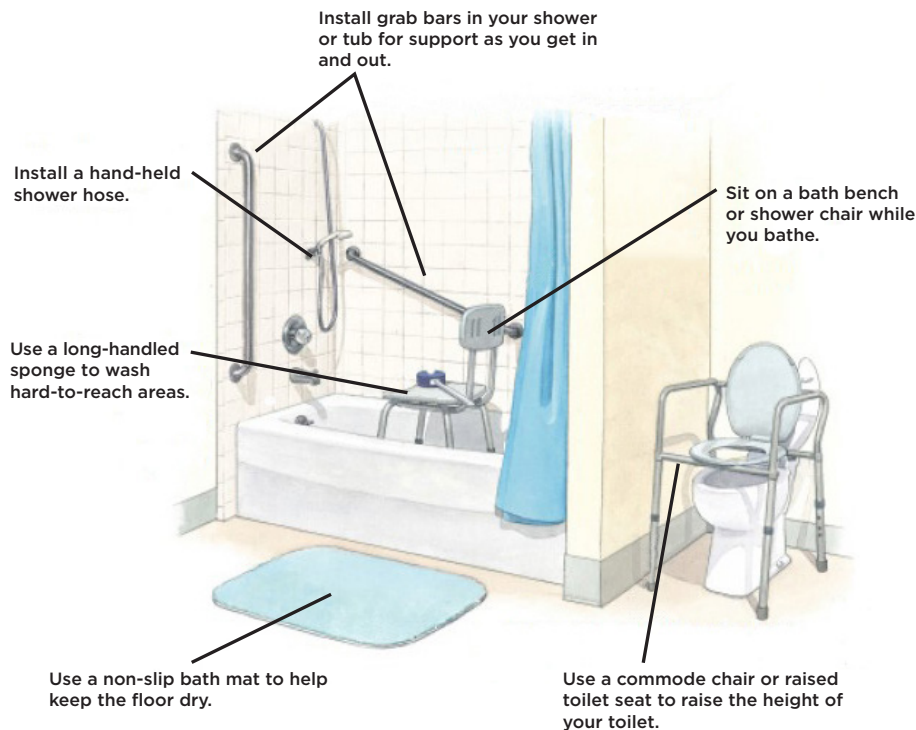
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Bedroom

- Sleep on a bed that you can get in and out of easily.
- Consider installing a bedrail to make getting in and out easier.
- Consider having a bedroom on the main level.

Bathroom Tips

- Prevent slips and falls by installing railings and non-slip surfaces.
- Check existing grab bars for strength and stability, and repair if needed.
- You and your therapist may discuss safe ways to get in and out of your tub or shower and how to raise the height of your toilet seat.
- Make bathing easier by using a shower hose, liquid soap, a long-handled sponge, and a bath bench or shower chair without a back. That way you will not have to bend at the hip to bathe.
- Watch out for hazards, such as wet floors.
- Dry off in the shower to prevent bringing water out onto the floor.



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Stairs

- Arrange things so you do not have to use the stairs often.
- Make sure stairs have handrails that are fastened to the wall.
- Fix loose or uneven steps.
- Cover bare wood stairs with nonskid strips. If there is carpet, be sure it is attached.

Outdoors

- Try not to walk on uneven sidewalks or ground.
- Make sure outside stairs have a handrail that is securely fastened.
- When stepping off a curb, be aware of its height.
- You may want to use your cane or walker if the weather is bad, such as on windy or rainy days or when there is snow on the ground.
- Ask for help to add more outdoor lighting if needed.
- Watch for pets that could trip your feet, jump on you, or lie in your walking paths.
- Plan for a pet sitter or dog walker if needed.
- Ask for help with yard work or snow removal.
- Decide which of your vehicles you can get in and out of the easiest. Be sure you have enough legroom.



Hip Fracture Exercises

Do each exercise 10 to 20 times, 1 to 2 times each day.

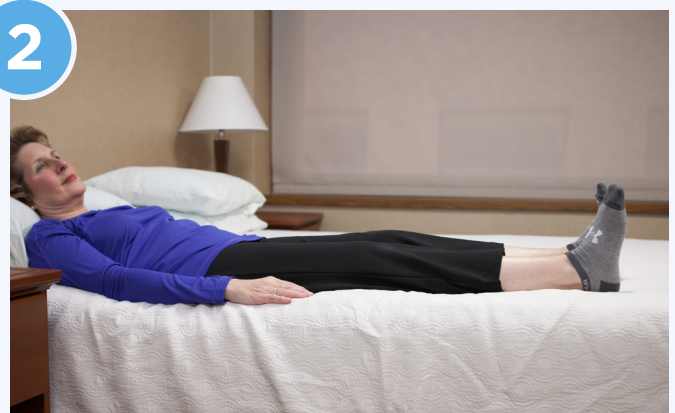
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Ankle Pumps

Pump your ankles up and down as far as you can.

2



Quad Set

Tighten the muscles on the top of your surgical thigh, pushing the back of your knee down into the bed. Hold for 5 seconds.

3



Hamstring Set

Bend your surgical knee slightly. Dig your heel into the bed and pull back like you would take a shoe off. Hold for 5 seconds.

4



Gluteal Set

Squeeze your bottom together. Hold for 10 seconds.

5



Heel Slide

Slide your surgical heel towards your buttock bending your knee as far as you can. Hold for 5 seconds. Use a sheet or elastic leg lifter to help you. For ease, use a cookie sheet or plastic bag under your heel.

6



Hip Abduction

(Only do this exercise if your surgeon or therapist told you to). Slide your surgical leg out to your side and back to the middle. Keep your toes pointed to the ceiling.

7



Knee Straightening (Lying)

Place a towel roll or coffee can under your surgical knee. Lift your foot off the bed by straightening your knee. Hold for 5 seconds. Make sure the knee remains on the roll.

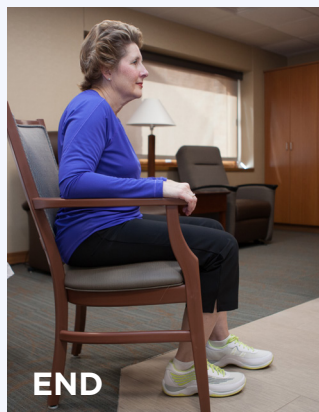
8



Knee Straightening (Sitting)

Sit on a chair that will not roll or bed. Scoot back so your thigh is fully on the chair. Lift your surgical foot to straighten your knee fully. Hold for 5 seconds. Use a sheet or elastic leg lifter to help if needed.

9



Knee Flexion (Sitting)

Only do this exercise if your surgeon or therapist told you to.

Sit with your surgical foot resting on the ground. Slide your foot back and forth bending it as much as you can. Hold for 5 seconds. Use a cookie sheet or plastic bag to help.

Plan for the Day

About every 1 to 2 hours, walk a distance that you are able. Follow the instructions from your healthcare team about how often to do your exercises. Elevate your surgical leg and ice your hip as you were taught by your healthcare team.

Time	Exercises	Elevate and Ice
6 a.m.		
7 a.m.		
8 a.m.		
9 a.m.		
10 a.m.		
11 a.m.		
12 p.m.		
1 p.m.		
2 p.m.		
3 p.m.		
4 p.m.		
5 p.m.		
6 p.m.		
7 p.m.		
8 p.m.		
9 p.m.		
10 p.m.		



Checklist Before You Leave the Hospital

Check off the items on the list below when you know the answers. Ask your nurse or doctor if you need more information.

- When to Call the Surgeon
- Medicine Safety
 - The names of my medicine
 - When and how to take each medicine
 - Common side effects of my medicine
 - What to do about side effects
- Pain Control
 - How to take my pain medicine
 - Side effects of my pain medicine
 - Other ways to help manage my pain
- Food and Drink
 - What foods I can eat
 - How much liquid I should drink
- Edema (swelling) Management
 - Techniques to manage swelling

- Deep Vein Thrombosis (DVT) Prevention
- Incision
 - Signs and symptoms of an infection
 - How to care for my incision
 - When my stitches or staples should be removed
- Activity Safety
 - Lifting
 - Driving
 - Bathing
 - Walking
 - Sex
 - Work restrictions (limits) and time off from work
 - Getting in and out of bed
 - Getting in and out of a chair
- My Recovery
 - My health condition or surgery
 - Follow-up appointments with my doctor or surgeon
 - Lab work that I need and where to have it done
 - Tools to stop smoking or using tobacco
 - The importance of washing my hands and avoiding sick people – preventing infection and getting sick
 - How to prevent blood clots and constipation
 - The importance of rest and how often to rest
 - Community support resources
- Emotions
 - You may have feelings of sadness or depression after surgery. These emotions are common.
 - Call your doctor if these feelings do not go away. Call 911 if you feel like hurting yourself or someone else.

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