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General Information
Welcome to Johnson City Medical Center's Hip Fracture Program

Did you know?
- Falls are more frequent in residents of nursing homes.
- Men have a 1 in 17 chance of having a hip fracture in their lifetime.
- More than 90 percent of hip fractures occur in adults who are 65 or older.
- There are 350,000 hip fractures per year in the U.S.
- Women are three times more likely to be hospitalized from a fall than men.
- Women have a 1 in 7 chance of having a hip fracture in their lifetime.

You or your family member has been admitted to Johnson City Medical Center. Our innovative Hip Fracture Program recognizes the fragility of the elderly patient and optimizes their treatment. It is an unfortunate fact that there is a 25 to 30 percent mortality rate within the first year for someone who falls and breaks his or her hip.

We are here to work with you to break this cycle. Hip Fracture Program team members are experienced, compassionate and ready to put their specialized skills to work for you. A fall resulting in a broken bone is a frightening event; however, you should feel confident you are in the best of hands.

The Hip Fracture Program is the first of its kind in the Tri-Cities and the only program in the region to provide prioritized and specialized care to elderly patients who have experienced a fracture. Our multidisciplinary team of board-certified orthopedic surgeons, medical physicians, physician’s assistants, physical therapists, occupational therapists, registered nurses, pharmacists, social workers and case managers work together daily to ensure the best possible outcome for our patients.

Dedicated teams, shorter time to surgery, earlier physical therapy and shorter hospital stays are the essential components of this program that help patients return to optimal levels of pre-injury function.

The Hip Fracture Program is involved in all aspects of the healing process following a fracture. Our program is involved from your initial presentation in the emergency department through the pre-operative preparation, surgical procedure and post-operative rehabilitation to your discharge from the hospital. We are also working with local skilled nursing facilities to continue your rehabilitation and recovery process.

Other features of our Hip Fracture Program:
- Access to physicians, nurses, case managers, social workers, physical therapists and occupational therapists who specialize in geriatric hip fractures
- Coordinated education for patients and family members
- Emphasis on rehabilitation and individualized care
- Participation by family and/or friends who serve as “coaches” in your recovery process

At Johnson City Medical Center, our mission as a community of caregivers is to bring loving care to healthcare. We strive to provide you with excellent clinical care and make your experience as pleasant as possible.

Hip Fracture Treatment
Treatment will depend on the location and the severity of the fracture. The severity of the fracture depends upon the intensity of the injury-causing event and the strength of the bone. More information about surgical treatment options is described later in this guidebook.

To relieve pain from the fracture, we use the most effective medications available and strive for early surgical treatment. Almost all hip and femur fractures in the elderly require surgery.
Hospital Care
The Coach’s Role

Having a support system in place after surgery is important. We recommend that you identify someone who will be available before and after your surgery to assist you in the process. We will be referring to this person as your “coach” or “VIP” (Very Important Partner). Your coach can be a spouse, family member neighbor or close friend.

The role of a coach is to:

• Attend therapy sessions when possible with the patient. Therapy is offered twice daily starting the day after surgery.

• Communicate with case management about the unique discharge needs of the patient (this may include a walker, commode or additional caregivers).

• Encourage patients to follow instructions given to them by their physician, nurse, therapist or other caregiver.

• Encourage the patient to participate in the full therapy process. Remember, all patients progress at different rates.

• Help build the patient’s confidence by offering him/her encouragement and support.

• Participate in the educational process. Fractures can be life-altering events for both the patient and his/her family.
What to Expect During Your Stay

Day of Admission

After a fall, patients either come through the emergency department or are admitted directly from a nursing or assisted living facility. As part of the admission process, you will be evaluated by an orthopedic surgeon and a hospital-based physician or primary care doctor to help you prepare for surgery to repair the broken bone. A health history will be obtained, including getting an accurate home medication list. An X-ray of your chest and affected bone will be taken, and blood samples will be collected. A Foley catheter will be inserted to drain the bladder, and intravenous fluids will be started.

One of the program’s primary goals is effective pain management. Before surgery, your pain will be managed with medicine followed by early surgical treatment. Most patients who are admitted to the program are evaluated by a physician and prepared for surgery to repair the fracture within 24-36 hours of admission.

Day of Surgery

Prior to surgery, you will not be able to eat or drink. You will be on bed rest until after surgery. At the appropriate time, you will be escorted to the surgery holding area for one hour, where you will see the anesthesiologist. Surgery will take approximately one and a half hours. Following surgery, you will be taken to a recovery area where you will remain for one to two hours. During this time, pain control will be established, your vital signs will be monitored and an X-ray will be taken of your repaired hip fracture. Total time in surgery is four to five hours.

The surgeon will talk with your family or coach when your surgery is completed to let them know how the surgery went. You will return to your room, where a nurse will care for you. Most of the discomfort occurs the first 24 hours following surgery. During this time, you will be receiving pain medication through your IV. You will probably remain in bed the first day.

Day 1 – After Surgery

• Vital signs will be taken every four to eight hours after surgery to monitor blood pressure, pulse, temperature and respiratory rate.
• A blood thinner and compression sleeves will be used to decrease the risk of blood clots.
• Blood work will be done to monitor blood levels after surgery.
• Continue to use the incentive spirometer and do breathing exercises to decrease the risk of pneumonia.
• Your diet will be advanced as tolerated to minimize nausea and vomiting.
• The Foley catheter will be removed to prevent the risk of a urinary tract infection and to promote mobility.
• Pain will be frequently assessed using a pain scale.
• Physical therapists will evaluate and treat you using individualized plans. Your mobility will be advanced as tolerated to increase your functional independence.
• A goal is to get up from the bed and move to a bedside chair to promote mobility and decrease risk of pneumonia.
• A physician will work with you and your family to determine rehabilitation needs after discharge from the hospital.
• A case manager will assist in planning hospital discharge and ordering any medical equipment that may be needed.
Day 2 – After Surgery

• Vital signs will be taken every eight hours and as needed.
• A blood thinner and compression sleeves will continue to be used.
• Blood work will be done.
• Breathing exercises will continue.
• Most patients can resume their regular diet.
• Pain will be regularly assessed using a pain scale.
• Physical and occupational therapists will continue treatment. Mobility levels will continue to be advanced as tolerated.
• Most patients will be up in a bedside chair for most of the day and will begin to walk using an assistive device such as a walker (when weight bearing is permitted).
• The medical physician, orthopedic surgeon and case manager will continue to make daily rounds.
• Rehabilitation options will be discussed and a placement plan will be developed to best suit your needs.
• In some cases, you may discharge home today if you are doing well and are moving safely with assistance from your coach.

Day 3 – After Surgery and Every Day Thereafter if Needed

• Vital signs will be taken every eight hours and as needed.
• A blood thinner and compression sleeves will continue to be used.
• Breathing exercises will continue.
• Pain will be regularly assessed using a pain scale.
• Physical therapy will continue. Mobility levels will continue to be advanced as tolerated.
• The medical physician, orthopedic surgeon and case manager will continue to make daily rounds.
• Rehabilitation options will be discussed and a placement plan will be developed to best suit your needs.
• Final rehabilitation and discharge plans will be implemented.
Physical and Occupational Therapy
You will start physical therapy the first day after surgery and participate in physical therapy daily. Early and daily mobilization after a fracture, either to a chair or to a standing position, is essential to begin recovering following your surgery. You will have physical therapy two times a day. You may also receive occupational therapy.

Occupational Therapy
Your occupational therapist (OT) will see you upon the request of your physician. Once evaluated by your OT, you and your OT will establish specific goals based on your specific needs. You will start mobilizing early with a focus on your ability to perform self-care needs independently such as dressing, bathing and toileting. Your OT may recommend specific adaptive equipment to assist you in your self-care to help you regain your highest level of independence. Adaptive equipment suggestions may include a bedside commode, shower seat, sock aid, reacher, long-handled sponge or extended shoehorn.
Discharge Process

Discharge Planning Process
Discharge planning starts within 24 hours of admission. Physical therapy evaluates the patient on post-op day one and makes recommendations per performance for inpatient rehab, a skilled nursing home, home health services or outpatient physical therapy. Case management and social worker follow and make arrangements based on decision of patient, family or POA.

Discharge Options for Fractured Hips
- Home healthcare services
- Inpatient rehab
- Outpatient physical therapy
- Skilled nursing facility

Inpatient Rehab
- All insurances will allow inpatient rehab if acceptable except United Healthcare (formally John Deere). This also includes AARP since it is owned by United Healthcare.
- Physical therapy recommendations

Skilled Nursing Facility
- Patients who come from a nursing home will return back to that facility if they are agreeable and if it has a skilled unit. If not, a skilled facility of the patient and family’s choice will be pursued.

Home Healthcare Services
- After a few weeks of home health, one can transition to outpatient therapy if applicable.
- Arranged at discharge to the facility of choice.
- Outpatient rehab
- Patients who wish to return home, have strong family support and qualify for home health will receive physical therapy visits three times a week.

Assisted Living
- Patients who reside in an assisted living facility cannot return until they are able to ambulate independently.

DMEs
- Insurance will not cover any items for the bathroom; for example, commode extender, shower chair and transfer bench.
- Patients will need a rolling walker and a 3-in-1 bedside commode. These items are covered by insurance.

Summary
- Case management and social worker follow and make arrangements based on decision of patient, family or POA.
- Discharge planning starts within 24 hours of admission.
- Physical therapy evaluates post-op day one and makes recommendations per performance for inpatient rehab, skilled nursing home, home healthcare services or outpatient physical therapy.
Post-Op Care
Caring for Yourself at Home

When you go home, there are a variety of things you need to know for your safety, your speedy recovery and your comfort.

Control Your Discomfort
• Change your position every 45 minutes throughout the day.
• Gradually wean yourself from prescription medication to Tylenol®. You may take two extra-strength Tylenol in place of your prescription medication up to four times per day.
• Take your pain medicine at least 30 minutes before physical therapy.
• Use ice for pain control. Applying ice to your repaired fracture site will decrease discomfort, but do not use more than 20 minutes at a time each hour. A bag of frozen peas wrapped in a kitchen towel makes an ideal ice pack. Mark the bag and return it to the freezer (to be used as an ice pack later).

Body Changes
• Pain medication that contains narcotics promotes constipation. Use stool softeners or laxatives such as milk of magnesia if necessary.
• You may have difficulty sleeping. This is normal. Don’t sleep or nap too much during the day.
• Your appetite may be poor. Drink plenty of fluids to keep from getting dehydrated. Your desire for solid food will return.
• Your energy level will be decreased for the first month.

Stockings (TEDS)
• Ask your surgeon when you can discontinue stockings. Usually, this will be done three weeks after surgery.
• If swelling in the operative leg is bothersome, elevate the leg for short periods throughout the day. It’s best to lie down and raise the leg above heart level.
• Notify your physician if you notice increased pain or swelling in either leg.
• Wear the stockings continuously, removing for one to two hours twice a day.
• You will be asked to wear special white stockings. These stockings are used to help compress the veins in your legs to keep swelling down.

Lovenox
Lovenox is a medication that you may be given to prevent a blood clot in your blood vessels. Your physician will prescribe your exact dose. It is given as a subcutaneous injection. You will be instructed on self-administration and possible side effects prior to your discharge from the hospital.
Nutrition

It is very important to maintain good nutrition following your surgery. Calorie and protein needs increase post-op due to increased needs with wound healing. Some good sources of protein include meat, chicken, fish, eggs, cheese, beans and peanut butter.

In addition to protein, it is important to maintain good iron stores. You may find that you have been prescribed an iron supplement. Taking your supplement with a vitamin C-containing food such as orange juice will significantly increase your absorption of iron. Cooking in cast iron pots and pans will also increase the iron content of foods. Likewise, tea and coffee will decrease your absorption of iron.

**Good sources of iron:**
Meat, fish, poultry, cream of wheat, Raisin Bran, kidney beans, pinto beans, molasses, prune juice and spinach.

**Good sources of vitamin C:**
Orange juice, strawberries, tomatoes, broccoli, cantaloupe, grapefruit, sweet potatoes, turnip greens, vegetable juice and brussels sprouts.

Calcium and vitamin D are important for the maintenance of healthy bones. Dairy products such as milk, yogurt and cheese are excellent sources of calcium. Other nondairy sources include calcium-fortified orange juice, tofu, canned fish such as sardines and salmon with bones, soybeans, and some leafy greens such as collard and turnip greens.

Calcium-fortified cereals are also a good source of calcium. Vitamin D is essential in promoting calcium absorption in the body. Vitamin D is absorbed by the skin through the sun. Dietary sources include vitamin D-fortified milk, fatty fish, liver and egg yolks.
Recognizing and Preventing Potential Complications
Confusion is the inability to think with usual speed or clarity. It is also characterized by difficulty focusing and feeling disoriented. It is not uncommon for some people to become confused during their hospital stay. The following things may increase the risk for confusion:

- Advanced age
- Being in unfamiliar surroundings
- Body fluid and electrolyte imbalance
- Decreased level of oxygen in the blood
- Excessive alcohol use
- Increased pain
- Infection or fever
- Low blood sugar
- Major surgery with anesthesia
- Poor vision/hearing
- Sleep deprivation
- Some medications

What are the signs of confusion?

As a family member or coach, you may notice the patient becomes inattentive, loses his or her perception of things and has a hard time with remembering. Some of the visual signs are:

- Memory lapses as to their name, where they are and why they are there
- Not acting like themselves; quiet, depressed and overly tired
- Restlessness
- Seeing things that are not there
- Sometimes, show aggressive behavior
- Staying awake at night; sleeping during the day
- Trying to get out of bed; wandering
The coach can help with patient confusion:

- Bring a few familiar items from home. A photo, a favorite comforter or pillow, or the patient’s own robe and slippers can help.
- Bring glasses, hearing aids and dentures to the hospital. Having necessities helps to keep things “normal.” Notify the nurse whenever you bring in personal items.
- If you detect new signs of confusion (memory or personality changes), you should report them to the nurse immediately.
- Stay with your family member as much as possible. During this period of confusion, relatives should try to arrange shifts so someone can be with the patient around the clock.
- When talking to your family member, state one simple task or fact at a time.

An important thing to remember is that when patients have an episode of confusion, they do not have good control over what they say or do. It is also common for people to not recall being confused after the episode has gone away. The best thing we can all do is recognize the disorder, treat the cause promptly and keep the patient safe until he or she recovers.

Blood tests to check for:
- Decreased blood count
- Decreased blood sugar level
- Electrolyte imbalance
- Infection
- Oxygen level

Urine tests to check for:
- Dehydration
- Infection

Chest X-ray to check for:
- Infection (pneumonia)
- Possible reasons for decreased oxygen

EEG, CT scan or MRI to check for:
- Changes within the brain

How long will the confusion last?
The length of time that the confusion will last varies with each individual depending on the variables causing the confusion. Usually, confusion goes away within hours or days. Occasionally, it can last longer. Your doctor may order additional testing if the confusion does not resolve quickly. Listed below are some of the tests that may be ordered.
Caring for Your Incision

- Keep your incision covered with a light, dry dressing until you do not have any drainage.
- Keep your incision dry.
- Notify your surgeon if there is increased drainage, redness, pain, odor or heat around the incision.
- Take your temperature if you feel warm or sick. Call your surgeon if it exceeds 101.5 °F for more than 24 hours.
- You may shower 24-48 hours after surgery, unless instructed otherwise. After showering, apply a dry dressing if incision is still draining.

Prevention of Infection

- Notify your physician and dentist that you have had a hip fracture.
- Take proper care of your incision as explained.
- Take prophylactic antibiotics when having dental work or other potentially contaminating procedures. This needs to be done for at least two years after your surgery.

Infection

Signs of Infection

- Change in color, amount and/or odor of drainage
- Fever greater than 101 °F
- Increased pain in hip
- Increased swelling, redness at incision site

Blood Clots in Legs

Surgery may cause the blood to slow and coagulate in the veins of your legs, creating a blood clot. This is why you take blood thinners after surgery. If a clot occurs despite these measures, you may need to be admitted to the hospital to receive intravenous blood thinners. Prompt treatment usually prevents the more serious complication of pulmonary embolus.

Prevention of Blood Clots

- Blood thinners such as Lovenox
- Compression stockings
- Foot and ankle pumps
- Walking

Pulmonary Embolus

An unrecognized blood clot could break away from the vein and travel to the lungs. This is an emergency and you should CALL 911 if suspected.

Signs of Pulmonary Embolus

- Confusion
- Difficult and/or rapid breathing
- Shortness of breath
- Sudden chest pain
- Sweating

Prevention of Pulmonary Embolus

- Prevent blood clot in legs.
- Recognize a blood clot in leg and call physician promptly.

A pulmonary embolus occurs when a blood clot travels to the lungs.
Hip Precautions

(If you need these special precautions, physical therapy will inform you.)

These precautions should be taken for the next three months, unless directed otherwise by your physician, to prevent dislocation.

AT ALL TIMES
- DO NOT cross legs
- DO NOT turn toes in or out
- DO NOT bend at the hip past 90 degrees

Dislocation

Signs of Dislocation
- Rotation/shortening of leg
- Severe pain
- Unable to walk/move leg

Possible Long-Term Results to Expect After a Fracture

Fractures can take three to six months to heal, and it may take up to a year or more to fully recover from your injury. Many patients who fracture a bone will be able to return to pre-injury levels of function and independence with proper care and rehabilitation.

However, some patients may not be able to return fully to pre-injury levels of function. This can be a significant life-changing event for some individuals.
More Information About Hip Fractures
The Anatomy of Your Hip

Hip fractures occur in three main areas:
- Femoral neck
- Intertrochanteric region
- Subtrochanteric region

The hip is one of your body’s largest weight-bearing joints. It consists of two main parts: a ball (femoral head) at the top of your thighbone (femur) and a rounded socket (acetabulum) in your pelvis.

The top of your femur is categorized into four main parts: the subtrochanteric region near the bottom of the hip joint, the intertrochanteric region in the middle of the joint, the greater trochanter at the top of the joint and the femoral neck that connects the femur to the femoral head. These regions are shown in the image below.
Types of Surgeries

The type of surgery you have depends largely on where your fracture has occurred. Some common procedures to repair hip fractures are described below.

**Hemiarthroplasty (Partial Joint Replacement)**
This is a common procedure performed on patients who have a femoral neck fracture. During this surgery, the broken ball of the hip is removed and replaced with a high-strength artificial ball. The images to the right show an example of the artificial device and where it is placed in the hip. An Austin Moore implant, a type of endoprosthesis, is the implant sometimes used in older patients with a femoral neck fracture who are less active or nonambulatory. It holds the advantage of less blood loss and operative time.

**Open Reduction Internal Fixation**
This is normally used for stable femoral neck fractures. In this type of treatment, the surgeon repositions (reduces) the bone fragments into their normal alignment, then inserts screws or attaches metal plates to the outer surface of the bone to stabilize the fracture.
Trochanteric Fixation Nail
This is commonly used for intertrochanteric and subtrochanteric fractures.

Total Hip Replacement Surgery
This surgery involves replacing all of the joint with artificial (usually metal) parts. A total hip replacement can be done if the hip joint area was already damaged before the fracture by arthritis or an injury and the joint was not working correctly. Total hip replacement is often done for femoral neck fractures when the blood supply to the top of the thighbone is damaged and there is a chance that the bone might die (avascular necrosis). It is also done when the fractured bones cannot be properly aligned.
Preventing Future Falls
What Causes Falls?

After you have recovered from a fracture, it is very important to prevent future falls and injuries. You can reduce the chances of another fall by understanding why falls happen, getting proper nutrition and making simple changes around your home.

Most fractures occur when a person falls. Falls may be the result of loss of balance, medication side effects, poor vision, impaired mobility, loss of strength, environmental problems and osteoporosis. Seniors are particularly afraid of falling, which causes them to restrict their activity level. This actually leads to further muscle weakness, poor balance and joint stiffness, subsequently increasing the chance of a fall. The best prevention against falling is remaining active and staying in good physical condition. A physical therapist should be consulted for assistance with an individualized program.

How can I prevent a future fall?

• Add adhesive, no-slip strips to bathtubs and bathroom floors.
• Consult a physical therapist for an individualized assessment and exercise program.
• Install grab bars near the bathtub and toilet.
• Make sure rugs stay in place with adhesive backings.
• Make sure you are getting proper amounts of calcium and vitamin D in your diet.
• Use nightlights in hallways, bathrooms and bedrooms.

Osteoporosis

One of the goals of the Hip Fracture Program is to educate the community about causes of fractures. This education includes screening for osteoporosis.

Osteoporosis means “porous bones.” As we age, our bone mass declines faster than new bone can form. As a result, bones can become susceptible to fractures. The loss of bone mass has no symptoms and usually causes no pain until a bone breaks. Spinal fractures can cause a loss of height, severe back pain and curving of the shoulders and spine.

Risk factors for osteoporosis include being female (especially if experiencing menopause), increased age, being of Caucasian or Asian descent, being deficient in calcium and vitamin D, inactivity, smoking and drinking alcohol, family history of osteoporosis, and some medications.

Preventing osteoporosis is not entirely out of your control. Regular exercise and a healthy diet, including calcium and vitamin D can help. If you smoke, quit, and ask your doctor about medications that could prevent osteoporosis such as estrogen.
Directions to Johnson City Medical Center

From the North: From I-26 East, take Exit 19 (State of Franklin Road, TN 381). Exit right onto State of Franklin Road. Proceed approximately three miles (crossing Market Street, US 11E). Johnson City Medical Center will be on your left.

From the South: From I-26 West, take Exit 24 (University Parkway, Elizabethton; US 321). At the stoplight, turn left onto US 321 South. This will be University Parkway. Proceed to State of Franklin Road at the 5th stoplight (following US 321) and turn left. After approximately one mile, Johnson City Medical Center will be on your right.

From the East: From US 321 South, proceed into Johnson City. This will become University Parkway just past I-26. Proceed under the interstate to State of Franklin Road (the 6th stoplight) (following US 321) and turn left. After approximately one mile, Johnson City Medical Center will be on your right.

From the West: US 321 North and US 11E North will become Market Street in Johnson City. Move to the right-hand lane and turn right at State of Franklin Road (TN 381 and US 321 North). Johnson City Medical Center will be on your left.
Welcome to Johnson City Medical Center

Our facility specializes in the diagnosis, treatment and care of people who have hip and knee problems. Your team includes physicians, physician assistants, patient care partners, nurses, and physical and occupational therapists specializing in total joint care. Our highly trained nurses, technicians, pharmacists and therapists are dedicated to making your experience as pleasant and productive as possible.

400 N. State of Franklin Rd.
Johnson City, TN 37604
423-431-6111
MountainStatesHealth.com/jcmc
What You Need to Know About Blood Transfusions

This teaching sheet is to inform you about the benefits, risks and alternatives to blood transfusion. When your physician orders a blood transfusion, she/he should explain the reason it is needed. The benefits of blood transfusion include maintenance of adequate oxygen levels and prevention of continued bleeding.

Source and Testing

Only blood that has been freely donated by volunteers is used for transfusions at Johnson City Medical Center.

The blood donor is tested for Hepatitis viruses B and C, syphilis, the AIDS antibody and other factors. This greatly reduces your risk of getting these diseases from a transfusion. The blood you will receive is cross-matched (or tested) against your own blood for compatibility. The cross-match can be done up to three days before the blood is transfused to you.

You will have a special armband placed on your arm when your blood is tested. Do not remove the armband until instructed by your healthcare provider. This armband is required to identify you at the time you are transfused. If this armband is removed before transfusion, another test for type and cross-match would have to be done before you receive blood.

Receiving Blood

Your healthcare provider will check your temperature, heart rate, blood pressure and breathing frequently while you are receiving blood. Each unit of blood will take 90 minutes to four hours to be given, depending on your doctor’s orders. You will receive an IV (intravenous) solution containing saline with each unit of blood.

Going Home After Receiving Blood

If you are going home the same day you receive blood, do not leave until your nurse or doctor tells you that you are ready to leave. Someone should drive you home in case you become ill. You may eat or drink as usual, but should delay participating in any potentially hazardous activities (climbing, swimming, etc.) for at least 24 hours.
Some mild reactions may be due to anxiety about the transfusion.

A mild allergic reaction to blood is the most common and is due to a reaction with the plasma in the donor’s blood. This can usually be promptly controlled with medication.

Rare, but severe, reactions may occur because your blood is not compatible with the blood you received. Almost all severe reactions occur very shortly after beginning the transfusions.

**Adverse Reactions – Infectious**

Today, infectious disease transmission through blood transfusion is extremely uncommon. Infectious diseases transmitted by transfusion can be Hepatitis B, Hepatitis C and HIV, which causes AIDS. The risk of becoming infected with Hepatitis B virus is estimated at less than 1 per 150,000 units, and the risk of receiving an HIV- or Hepatitis C-positive unit of blood through a blood transfusion is estimated at 1 per 2 million units.
Basics of Anesthesia

What types of anesthesia are available?
Decisions regarding your anesthesia are tailored to your personal needs.

Certain illnesses can potentially make one type of anesthetic better than another. For instance, a patient with emphysema would probably do better with a spinal.

Meanwhile, a patient with a bleeding disorder or on anticoagulants cannot have a spinal due to the risk of bleeding in the spinal canal.

The types available for you are:

GENERAL ANESTHESIA renders the patient unconscious for the duration of surgery. The patient is typically sedated prior to surgery and put to sleep once in the operating room and awakened in the recovery room.

REGIONAL ANESTHESIA techniques include spinal blocks, epidural blocks, and arm and leg blocks. Patients undergoing spinal block are also usually sedated prior to surgery, and the spinal is placed in the operating room. This involves sitting the patient upright on the operating table, numbing the skin low in the middle of the back, and with a small-diameter needle injecting a dose of local anesthetic, which begins to work almost immediately. Patients are then sedated for the rest of the operation and allowed to stay in the recovery room until most of the spinal has worn off.

Will I have any side effects?
Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options, as well as any complications or side effects that can occur with each type of anesthetic. Nausea or vomiting may be related to anesthesia or the type of surgical procedure. Although less of a problem today because of improved anesthetic agents and techniques, these side effects continue to occur for some patients. Medications to treat nausea and vomiting will be given if needed. The amount of discomfort you experience will depend on several factors, especially the type of surgery. Your doctors and nurses can relieve pain with medications. Your discomfort should be tolerable, but do not expect to be totally pain-free. The staff will teach you the pain scale (1-10) to assess your pain level.

What will happen before my surgery?
You will meet your anesthesiologist immediately before your surgery. Your anesthesiologist will review all information needed to evaluate your general health.

This will include your medical history, laboratory test results, allergies and current medications. With this information, together you will determine the type of anesthesia best suited for you. He or she will also answer any further questions you may have.
About Lovenox

Lovenox is an anticoagulant (“anti” means against and “coagulant” refers to clotting) that is used to help prevent the formation of blood clots in patients at risk.

Lovenox is given by injection, which can be done by you or an appropriate caregiver (your nurse will show you or your caregiver how to do this). In the hospital, you will get a Lovenox 30mg injection twice a day. When you are discharged, you will have Lovenox 40mg injections daily for 10-20 days depending on your surgery.

Your doctor will determine how long you will need to take this medication. DO NOT change your dose or stop taking this medication unless instructed by your doctor.

How Lovenox Should Be Taken

- It is important to take Lovenox at the same time every day. If you need to, mark the calendar as you take it to remind yourself that you have taken it for the day.
- Take only the amount of Lovenox prescribed for you.
- Continue the injections for exactly the number of days specified by your doctor.
- Look at your old injection sites for the following: redness, pain, warmth, puffiness, discoloration of the skin or oozing, which could be signs of infection or skin reaction.
- If you forget to take your dose, DO NOT double your dose the next day, but take your regularly prescribed dose.
- Lovenox should be stored at controlled room temperature, 59˚ F to 77˚ F.
- Accidental overdose may result in severe bleeding, which cannot be treated at home. If you suspect that you have used too much Lovenox, it is important to call your doctor immediately, even if you have not observed any unusual symptoms. Your doctor can make a decision on proper treatment.

Special Instructions While on Lovenox

- Brush your teeth with a soft toothbrush to avoid scratching your gums. Inform your dentist, dental hygienist or any other doctor treating you that you are taking Lovenox.
- Inform the doctor if you are planning any dental work or any surgical procedure while you are taking Lovenox.
- Use an electric razor for shaving rather than a straight-edge razor.
- Avoid scratching the skin, which might break the surface or irritate it.
- Wear gloves when gardening. Be careful when you use sharp items such as knives or power tools.
- Always wear shoes or slippers to protect the soles of your feet. Never trim corns, calluses or nails with a sharp knife or razor blade.
- To prevent falls, place a non-slip bathmat in the tub and remove throw rugs.
- Avoid activities or contact sports that could easily lead to injury and bleeding.
- If you are to be away from home for any length of time (such as a vacation), inform your doctor.
- Check with your doctor before drinking alcoholic beverages. Alcohol may increase the risk of stomach irritation and bleeding.
- Avoid smoking.
- Avoid use of estrogen products and oral contraceptives. Check with your doctor for alternative methods of birth control.
- Avoid blowing your nose forcefully.
- Maintain adequate fluids.
- Keep Lovenox and all medications out of the reach of children.

Lovenox is an anticoagulant (“anti” means against and “coagulant” refers to clotting) that is used to help prevent the formation of blood clots in patients at risk.

Lovenox is given by injection, which can be done by you or an appropriate caregiver (your nurse will show you or your caregiver how to do this). In the hospital, you will get a Lovenox 30mg injection twice a day. When you are discharged, you will have Lovenox 40mg injections daily for 10-20 days depending on your surgery.

Your doctor will determine how long you will need to take this medication. DO NOT change your dose or stop taking this medication unless instructed by your doctor.

How Lovenox Should Be Taken

- It is important to take Lovenox at the same time every day. If you need to, mark the calendar as you take it to remind yourself that you have taken it for the day.
- Take only the amount of Lovenox prescribed for you.
- Continue the injections for exactly the number of days specified by your doctor.
- Look at your old injection sites for the following: redness, pain, warmth, puffiness, discoloration of the skin or oozing, which could be signs of infection or skin reaction.
- If you forget to take your dose, DO NOT double your dose the next day, but take your regularly prescribed dose.
- Lovenox should be stored at controlled room temperature, 59˚ F to 77˚ F.
- Accidental overdose may result in severe bleeding, which cannot be treated at home. If you suspect that you have used too much Lovenox, it is important to call your doctor immediately, even if you have not observed any unusual symptoms. Your doctor can make a decision on proper treatment.
The following hotels offer discounted rates for family members of patients at Johnson City Medical Center. In order to receive the discounted rate listed, you must present the “Be Our Guest” packet or the family advocate business card (which is located in the packet of information) to the hotel upon registering. If you need to make arrangements prior to your hospitalization, call the Spine Program coordinator for additional assistance at 423-431-6937. Additionally, you may call the family advocate at 423-431-1652 if you would like assistance in making reservations.

Please note that discounted rates may not be honored during special event weekends (i.e., Race Week and Storytelling Week).

<table>
<thead>
<tr>
<th>Hotel Name</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Hospital Guest House</td>
<td>423-926-0233</td>
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<tr>
<td>(VA Campus)</td>
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<tr>
<td>Hampton Inn</td>
<td>423-929-8000</td>
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<tr>
<td>508 N. State of Franklin Rd.</td>
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<tr>
<td>Best Western Hotel</td>
<td>423-282-2161</td>
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<tr>
<td>2406 N. Roan St.</td>
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<tr>
<td>Sleep Inn</td>
<td>423-915-0081</td>
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<tr>
<td>925 W. Oakland Ave.</td>
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<tr>
<td>Comfort Suites</td>
<td>423-610-0010</td>
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<td>3118 Browns Mill Rd.</td>
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<tr>
<td>Comfort Inn</td>
<td>423-928-9600</td>
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<td>1900 S. Roan St.</td>
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<tr>
<td>Ramada Limited</td>
<td>423-282-4011</td>
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<td>2606 N. Roan St.</td>
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<tr>
<td>Holiday Inn</td>
<td>423-282-4611</td>
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<td>101 Spring brook Dr.</td>
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<tr>
<td>Doubletree Inn</td>
<td>423-929-2000</td>
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<td>211 Mockingbird Ln.</td>
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<tr>
<td>Super 8</td>
<td>423-282-8818</td>
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<td>108 Wesley St.</td>
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<td>Jameson Inn</td>
<td>423-282-0488</td>
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<tr>
<td>119 Pinnacle Dr.</td>
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<tr>
<td>Marriott Fairfield Inn</td>
<td>423-282-3335</td>
</tr>
<tr>
<td>207 E. Mountcastle Dr.</td>
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</tbody>
</table>
Our Participating Physicians

Marc Aiken, MD
Watauga Orthopaedics

Charles Barnes, MD
Appalachian Orthopaedic Associates

Jason A. Brashear, MD
Appalachian Orthopaedic

Robert DeTroye, MD
Watauga Orthopaedics

James Goss, MD
Appalachian Orthopaedic Associates

Joseph Grant, MD
Watauga Orthopaedics

Thomas Huddleston, MD
Appalachian Orthopaedic

Timothy D. Jenkins, MD
Watauga Orthopaedics

Ben Knox, MD
Appalachian Orthopaedic Associates

Bart I. McKinney, MD
Appalachian Orthopaedic Associates

Karen J. McRae, MD
Watauga Orthopaedics

Reagan R. Parr, MD
Appalachian Orthopaedic Associates

Gregory Stewart, MD
Watauga Orthopaedics

J. Michael Wells, MD
Watauga Orthopaedics
For more information, call Misty Spano, our Hip Fracture Program Coordinator:
423-431-6937