Ankle Fracture
Patient Education Handbook
AdventHealth Orlando

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ADDRESS: 601 E. Rollins Street, Orlando, FL 32803
Main Phone: (407) 303-5600

Important Phone Numbers

Orthopaedic Traumatology Office - (407) 895-8890
Phone calls are answered Monday through Friday from 8:00AM to 5:00PM

AdventHealth Orlando Orthopedic Institute - (407) 609-3049
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Introduction

This booklet was developed to help you better understand the treatment, risks and recovery you can expect due to a broken ankle. There are many types of ankle fractures. Treatment will depend on the where the bone is broken and how much the bone has moved. Most ankle fractures need surgery to treat pain, restore movement and return function.

Injuries resulting in ankle fractures (broken ankles) are frightening, but you should feel confident that you are in good hands. Our skilled team includes Orthopedic Surgeons, Medical Doctors, Anesthesiologists, Physician Assistants, Registered Nurses, Physical and Occupational therapists and Care Managers working together to provide you excellent care. The Orthopedic team ensures that patients with ankle fractures are seen as high priority, receiving surgical care as quickly as possible.

Ankle fractures are certainly serious and have a recovery phase that often requires time and patience. For most patients, surgery is successful and people return to normal activities shortly after.

AdventHealth Orlando Orthopedic Surgeons:

Dr. J. Dean Cole      Dr. Brian Vickaryous      Dr. Michael Hawks      Dr. Robert Meuret
Understanding the Ankle & Ankle Fractures

The "true" ankle joint is made up of three bones: the tibia, fibula and the talus. The tibia or "shin" bone is the largest bone of the lower leg and supports most of our weight when we walk. The tibia forms the inside part of the ankle. The outside bone of the ankle is the fibula. It is the smaller bone of the lower leg and supports very little of our weight as we walk. The third bone of the ankle is the talus. The talus is the bone under the tibia and fibula. Both the lower end of the bone of the tibia and the fibula fit together on top of the talus bone creating the ankle joint. These three bones (tibia, fibula and talus) all together allow your foot to move up and down.

The bottom of the talus bone sits on the "heel bone" or the calcaneus. This creates a joint called the subtalar joint. The subtalar joint allows your foot to move side to side.

The ankle fracture, or broken ankle, can involve one bone of the joint or any combination of all three bones. Additional injuries frequently involve the skin, ligaments, cartilage, nerves and tendons. There can be multiple bone pieces. A fracture that ends up in a bone coming out through the skin requires early medical care because a break in the skin can lead to infection and make healing harder.
What to Expect After an Ankle Fracture

Plan of Care

To figure out your exact type of fracture and to create the correct treatment plan for you, your Orthopedic surgeon and Orthopedic Physician Assistant (PA) will perform a physical exam and review your symptoms.

X-rays may include several different views and will find the exact location of your fracture, the type of fracture pattern and if you have a displaced fracture. It will also show what the condition of the bone looks like.

With an ankle fracture, stability of the joint must be considered as well as any other injuries to the ligaments, tendons, muscles and nerves. Other imaging studies such as a MRI or CT scan, may be required to see ankle injuries; particularly injuries to the ankle ligaments and tendons.

Timing of surgical treatment will change based on skin condition and swelling.

Treatment Option:
A Closed Reduction

Your Orthopedic PA may provide you with needed initial treatment such as a closed reduction to stabilize your broken ankle before surgery. A closed reduction is a method used to move the bone back into its proper place by hand. This is done to realign the broken bone, to protect the bone and decrease the risk of further injury. You may be given a light anesthetic to relax your muscles before the bone is moved. Your doctor will then adjust the position of the broken bone. A splint will be put on to keep the bones in place while you heal or wait for surgery.
Surgical Treatment Option
Open Reduction and Internal Fixation

Because ankle fractures can be complex, your Orthopedic surgeon will carefully plan and provide timely treatment in order for you to have a successful outcome.

Surgery is required for most types of ankle fractures; especially when the bones are unlikely to stay aligned with a cast or if the fracture is complex.

Several factors will be considered when deciding on a patient’s direct treatment plan. The medical doctor (hospitalist) will prepare the patient medically for surgery. Once the patient is medically stable, or has “medical clearance”, from the medical physician, the surgeon will decide on the surgical treatment plan. Every plan is specific to each patient. Be sure to discuss your plan with your Orthopedic surgeon.

The surgical procedure used is called an open reduction with internal fixation. The surgery allows the surgeon to see and secure the fracture. This procedure will help to increase recovery of your ankle function, decrease stiffness and allow for immediate movement of the ankle.

You will be taken to the operating room and a general anesthetic will be used during the procedure to let you sleep and relax your muscles. Plates, nails, screws and cables are placed to hold the broken pieces of your ankle bone together. A surgical opening may be required in more than one location on one or both sides of your ankle to accomplish your repair.

Sterile bandages or a “dressing” will be put on over the incision and covered by a removable fracture boot or a splint that will not be removed until your first follow-up appointment.

A physical therapist will teach you therapy exercises which you will keep doing when you get home. See pages 17-19 for examples of the exercises.

You will not be allowed to place much weight on your ankle. You will need to use a walker or crutches during the first few weeks of after surgery.

How Do Ankle Fractures Occur?

An ankle fracture usually occurs as a single event, and is usually the result of a twisting, falling or high-impact injury. Examples include: falling off a curb, falling down steps or a high-impact injury that could occur during a sports activity, or a car or motorcycle accident.
Discharge

- You will be discharged (released from the hospital) the same day of surgery.
- You will be discharged to your home where you will continue your therapy.
- Continue to do your therapy/exercises 3 times a day until your 2 week follow up appointment with your surgeon. *(Exercise instructions can be found on Pages 17-19)*
- Call and schedule your 2 week follow-up appointment with your Orthopedic Surgeon as soon as possible by calling 407-895-8890. *Calls are answered Monday through Friday from 8:00am—5:00pm.*

**Quick Tips for Pain:**

See pages 10-11: Healing & Recovery, for more information.

- Ice
- Elevation
- Dressing check

- Pain Medication
- Fracture Boot

**Call your doctor immediately if you develop or observe any of the following:**

- Severe or increasing pain that is not relieved with pain medication
- New onset of numbness and/or tingling of the foot
- Constant fever over 101.4, as this may be a sign of infection
- A major increase in redness, swelling, bleeding or increasing drainage from the surgical site

**If you have any of the above problems or questions, please contact your surgeon’s office at: 407-895-8890.**

*Phone calls are answered Monday through Friday from 8:00 AM to 5:00 PM*
****** Going Home With A Nerve Block ******

To help you control your pain after surgery, you received a **nerve block**.

**Nerve blocks:**
- Help reduce pain after surgery by giving pain relief for 8 to 24 hours after your surgery. Your nerve block may wear off sooner or last longer.
- Cause you to not be able to feel or move your leg on the side of your body the block was given.
- Cause your leg to feel heavy, numb, and ‘floppy’ on the side of your body the block was given.

**If you have a block to your leg or foot:**
- You will not be able to safely bear weight (stand) on the “blocked” leg until the medication wears off.
- You need to use crutches, a walker or a wheelchair to walk or stand.
- Do not put anything too hot or too cold directly on your skin, since you will not be able to feel it.
- Move your leg around often to keep from putting too much pressure on one area for long time.
- Check the color of your toes every few hours if you have a cast or bandage around your ankle or foot. Call your surgeon if your toes are bluish or purple in color.

When you notice a tingling feeling in your leg or foot, that may mean your block is starting to wear off. It is recommended to start taking the pain medicine you were prescribed when this happens. Your pain medicine usually starts to work in about 15 minutes, but has its best effect after about an hour.

*If you have not had any pain before going to bed, you may want to take your pain medication before lying down to sleep. You could also set an alarm to check and see if you are having any tingling or signs of the nerve block wearing off so you can take your pain medication before the block wears off.*

If you feel the effects of the block for longer than 48 hours, please call JLR Catheter Service 407-992-6566.
Healing & Recovery After Ankle Surgery

Recovery time will be different depending on how bad your break is and the factors that affected your plan of care (i.e. age, activity level and general medical health). Existing arthritis or Osteoporosis will also affect the healing process. Your commitment to care for and exercising your ankle will be the key to your ankle returning to normal. It is not unusual for recovery to take several months. Most people return to normal daily activities when the fracture is healed.

Pain Management

**Elevation:** Raise your ankle above the level of your heart. The best position is lying down with 2-3 pillows. Elevation should be done for the first several days after surgery. Do not allow your leg to hang down at your side for long periods of time, as this position will increase the swelling.

**Ice:** Ice controls swelling and discomfort by slowing down the blood flow in your ankle. Place crushed ice in plastic bag (or a frozen bag of peas) over your ankle 4-6 times every day for no more than 20 minutes at a time. Ice can be used while the initial post-op dressing and splint are on. Once the initial dressing has been removed, place a thin towel between your skin and the ice.

**Pain Medication:** Most patients will need some pain medication for a while after leaving the hospital. Pain medication will be prescribed for you. It is important for you to understand your medication. Follow the instruction sheet titled: “Taking Pain Medications at Home” on page 12 of this book.

**Sleeping:** Wear your fracture boot when sleeping. Sleeping in a bed with your operative ankle raised up may be the most comfortable position after your surgery.

**Exercises:** Exercise will promote blood flow, mobility and maintain the range of motion in your ankle and foot while decreasing swelling. You may begin exercising by moving your toes, ankle and foot every hour right after surgery. To avoid stiffness following a broken ankle, continue to perform your exercises as instructed. *Refer to pages 17-19 for examples.*
Therapy: Therapy can begin right away and help you with returning to everyday activities sooner. This therapy greatly improves function and motion of the foot and ankle, and provides an excellent outcome for most patients.

You should be provided a prescription and a list of outpatient therapy options when you leave the hospital. If not, you can call AdventHealth Sports Medicine and Rehabilitation to locate a facility near your home at 407-303-8080, or visit www.fhsportsmed.com

For best outcomes: Get up and move around for short periods of time for the first week after surgery. However, spend most of your time elevating and icing your ankle.

Fracture Boot: After your first follow up appointment with your surgeon, you may be given a fracture boot to wear. The fracture boot provides comfort and protection as the ankle heals. Wear the boot as told to by your surgeon. Remove the boot to perform your therapy exercises and shower.

Showering: You should be careful to keep your splint clean and dry. Be sure to cover the entire splinted area with plastic and dry your leg completely to prevent the splint from getting wet. The splint is usually removed at your first follow up visit with your surgeon. Your foot may then be placed in a cast or fracture boot.

If you have a fracture boot, remove it prior to showering. Shower with soap and water and be sure to dry your foot and leg completely before putting the fracture boot back on.

When showering with a cast, make sure to cover the entire cast area with plastic and dry your leg completely to prevent water from getting inside.

Splint or Cast: If you have a splint or a cast in place, keep it clean and dry.

DO NOT REMOVE YOUR SPLINT OR CAST.
Taking Pain Medications at Home

It is important for you and your family to understand the right way to take your pain medications at home. The prescription will give you enough medication to last until your first follow up visit with your surgeon. When you left the hospital, you received printed information about your medications. Please read this information prior to taking your medications. You should understand the side effects and benefits of your medication.

- Respect the power and effects of your pain medication. If you do not understand something about your prescription, ask questions.
- Take your medications as directed: at the correct dose and the correct time.
- Do not take other pain medications unless directed to do so by your physician.
- Do not increase how often or how much of your pain medication you take.
- Pain is easier to relieve when the pain level is a 3 on a scale of 1-10. Taking your pain medication when you start to feel uncomfortable will help avoid the problem of "chasing" your pain later.
- Since pain medication can cause constipation, make sure you take a laxative regularly, as long as you are taking your pain medication.
- Try relaxing, listening to your favorite music, watching a movie or any other way of relaxing that works for you. This will improve how well the pain medication is working.
- Call your surgeon if your pain gets worse, if you can’t control your pain at home or if you have bad side effects from the pain medication: 407-895-8890.
- If you have any questions about the medication you are taking, contact your surgeon at 407-895-8890.
Dressing Changes at Home - Fracture Boot

If you are in a splint, do not remove it or get it wet. The following instructions are only for patients who have a fracture boot after surgery.

Surgical dressings are placed over your surgical site to protect and prevent infection. After surgery, your Orthopedic Surgeon placed a foam boarder dressing called Aquacel or Mepilex, over your incision. This dressing protects your incision and has a special technology in the dressing that reduces pain when removing it from your skin.

Change your dressing on:

Post-op Day 2 (2 days after your surgery) Remove and Replace with another Aquacel.
Post-op Day 5 (5 days after your surgery) Follow steps below.

Supplies: You will be given some supplies when you leave the hospital. Additional dressing supplies can be obtained at local pharmacies. DO NOT apply any lotions or ointments to the incision site.

** To remove this dressing always wash your hands with soap and water
Never touch your surgical site with your hands as bacteria can be easily transferred from your hands to your wound.

1. Removed fracture boot. Gently remove your old dressing by rolling the dressing edges with your fingers until it lifts off your skin.
2. Discard dressing into a plastic bag.
3. Look at your incision for any increased redness, drainage or open areas within the incision line (these are signs to report to your surgeon).
4. If there is no redness around the incision, drainage or open areas you may clean the incision area with antibacterial soap and water. Pat the incision dry with a clean dry towel and leave open to air (there is no need to cover with another dressing or gauze)
5. If you noticed any redness, drainage or any open areas you may cover the incision with a sterile 4x4 gauze pad and secure the edges with paper tape daily until you see your surgeon (these supplies can be purchased at a local pharmacy if needed)
6. Wash your hands after removing the dressing. Put fracture boot back on.

Showering:

- You may shower at home leaving the Aquacel dressing in place.
- When showering, make sure to use a clean towel and pat dry.
- Do not submerge in water: No tub baths or swimming until you see your surgeon.
Constipation

Constipation is when you have a hard, dry bowel movement (stool), have fewer or smaller stools or you have a difficult time having a bowel movement or passing a stool.

Additional signs of constipation may include:

- Fullness in your belly, a bloating feeling
- Painful belly cramping and or gas pains
- Poor appetite
- Straining with bowel movements

What causes constipation?

- Prescription pain medications are a common cause of constipation
- Being less active than usual
- Not drinking enough fluids
- Not eating enough fiber
- Not going to the bathroom when you initially feel the urge to move your bowels.

What is the best thing to do to prevent constipation?

- Drink more fluids; especially warm drinks like tea, coffee or warm water with a squeeze of lemon
- Drink 8, 8oz cups of water daily
- Include mild exercise and walking in your daily activity. Follow all directions for weight bearing and exercising that were given to you by your physician and physical therapist.
- Take a laxative and stool softener if needed.
Constipation

⇒ Increase foods with fiber in your diet. The following foods should be included:

1. Whole grain breads and cereals
2. Dried fruits, raisins, prunes and dates
3. Fresh fruit, apples, pears, bananas and cantaloupe
4. Vegetables, carrots, potatoes, peas and beans

Constipation is the most common side effect of taking pain medication. This side effect usually will not get better or go away as long as you continue taking pain medication.

Treatment for constipation should always be included when you are taking prescribed pain medication.

Call your doctor immediately if you are constipated and are experiencing:

- A fever, vomiting or cramping
- Abdominal pain or bloating
- Inability to pass gas

If you have any of the above problems or questions, please contact 407-895-8890.
Home Safety

Before you go home, it is important to make sure your home is set up right for you to recover safely:

**Tips:**

- Heavy housework such as vacuuming and lifting should be avoided
- Keep everyday items at the countertop level to avoid too much reaching and bending
- Avoid scatter or throw rugs, rugs with fringes or any other floor covering that could cause tripping
- Make sure all areas have good lighting
- Use non-skid stickers or bath mats in the shower stall or tub
- Place cell phones within reach
- Keep areas such as stairs, hallways, entrances and bathrooms as clear as possible of items that may cause tripping
- Wear shoes with a back strap that provide support. Avoid slippers or flip flops
- Use the equipment as taught to you by the therapist to make sure you are safe

**Stairs (Inside and Outside):**

- Are the step surfaces non-slip and in good repair?
- Are step edges visually marked to avoid tripping (i.e. colored adhesive tape)?
- Are stairways adequately lit?
- Are handrails present? Are they present on both sides? Are handrails securely fastened to the walls?

**Outside of the Home:**

- Are walkways in good repair, non-slip and free of objects that could be tripped over?
- Is there enough outdoor lighting to provide safe walking at night?
Therapy/Exercise Program

The following instructions and restrictions are to be followed until your first follow-up visit with your surgeon.

- Less than 20 pounds weight bearing with operated leg (with boot on).
- If you are in a fracture boot, remove it to do your exercises. **DO NOT REMOVE** your splint, but follow all other directions.
- Perform your exercises 3x per day. Put your boot back on when not exercising.
- Wear your boot while you sleep.
- Frequently raise your ankle above your heart and use ice to manage swelling.
- Use your walker or crutches as instructed by your therapist.
Exercises
Exercises should be performed 3 times each day

1. Lay down on your back
2. Tighten your thigh muscle and straighten your knee.
3. Lift your leg off the bed.
4. Repeat 10 times.

1. Lying on your back with your legs straight, push your knee down firmly against the bed.
2. Hold for 5 seconds, then relax.
3. Repeat 10 times.

1. Lying on your back, bend one leg and put your foot on the bed.
2. Put a cushion under the other knee.
3. Exercise your straight leg by pulling your foot and toes up, tightening your thigh muscle and straightening the knee.
4. Hold 5 seconds and slowly relax
5. Repeat 10 times.

1. Lay down on your back
2. Bring your leg out to the side and then back to mid-position
3. Repeat 10 times.
Exercises continued
Exercises should be performed 3 times each day

1. Sitting in a chair, lift your leg up off the seat keeping the knee bent
2. Return to starting position
3. Repeat 10 times.

1. Sitting in a chair, tighten your thigh muscle and straighten your knee.
2. Hold 5 seconds and slowly relax your leg
3. Repeat 10 times.

The dorsiflexion exercises pictured below are only meant for patients who are in a removable fracture boot. Remove the boot before performing this exercise.

**DO NOT do the exercises below if you are in a splint or cast.**

1. Sit with one leg straight out in front of you.
2. Put a band around your foot. (You can also use a leg lifter if you have one.)
3. Gently pull the band and feel the stretch in your calf.
4. Hold for about 30 seconds.
5. Slowly relax.
6. Repeat 3 times.

1. Flex your foot
2. Then point your toes
3. Repeat 10 times
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ATENCION: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al número siguiente 407-303-3025.