

Richard M. Marks, MD
Professor and Director
Division of Foot and Ankle
Department of Orthopaedic Surgery
Medical College of Wisconsin

Ankle Arthritis

Explanation:

Arthritis is inflammation resulting from the degeneration of cartilage in the joint. Arthritis of the ankle joint can occur due to fracture, dislocation, inflammatory disease, osteoarthritis, or congenital deformity. Patients may present to the clinic with pain that is relieved by rest, stiffness after periods of inactivity, swelling and pain at the end of the day, and diminished or loss of motion through the ankle joint. Conservative treatments for ankle arthritis include bracing with an arizona gauntlet brace, an ankle-foot orthosis (AFO) or a double upright brace. Shoe modifications include a rocker sole bottom with a cushioned heel (SACH). Bracing and shoe modifications provide support to the ankle joint, limiting the amount of motion and stress through the ankle joint. If these measures fail, surgery is the next option.



Normal Ankle



Arthritic Ankle

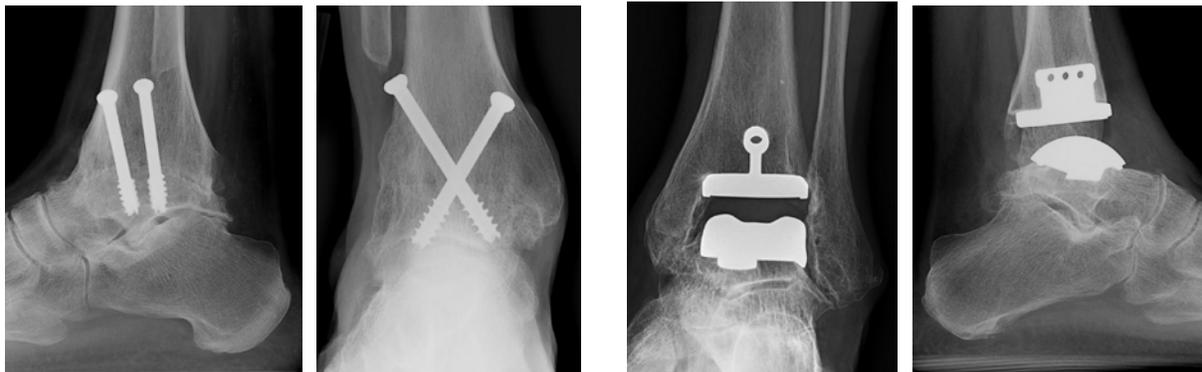


Procedure:

Surgical options include ankle fusion or total ankle replacement. Determination of fusion versus replacement depends on age, weight, activity requirements, and associated medical conditions. Contraindications for a total ankle replacement are history of infection, diabetes, peripheral neuropathy, severe angular deformity, morbid obesity, or being an active smoker.

If an ankle fusion is performed, arthritic bone is removed from the joint to create bleeding bony surfaces for fusion. Permanent screws are then placed across the joint to fixate the fusion. In some cases, the fibula is used as bone graft as seen in the picture below. A fusion takes away the up and down motion of the ankle.

If a total ankle replacement is performed, arthritic bone is removed and bone from the tibia and talus is resected to allow for the total ankle components. Motion of the ankle is maintained with a total ankle; however, patients with well maintained range of motion pre-operatively may note slightly diminished range of motion following surgery and, conversely, patients with extremely limited range of motion will note a few more degrees post-operatively. For more information on the ankle replacement, feel free to log on to <http://www1.mcw.edu/orthopaedicsurgery/faculty/RichardMMarksMDFACS.htm>



Ankle Fusion

Salto Talaris Ankle Replacement

Pre-Operative Considerations:

All patients will have a pre-operative medical evaluation arranged either through your primary care provider or through pre-admission testing at Froedtert. Anti-inflammatory medications (i.e. ibuprofen, aspirin, plavix, or celebrex) need to be stopped seven days prior to surgery. You will be contacted the day prior to your scheduled procedure regarding the exact time of your procedure and required arrival. Please be punctual. If you are not contacted by 3:00 PM, please call (414) 805-3285 for procedures being done at Froedtert's main OR or (414) 805-9500 for procedures at Sargent Outpatient Surgery Center.

Following surgery you will be unable to place weight on your surgical extremity thus pre-operative planning is essential. Prior to surgery, an appointment with a physical therapist will be made for instructional use of crutches or a walker as their use will be required

post-operatively. The device will also be fitted to your height during this appointment. The crutches or walker will be issued at that appointment or arrangements will be made to obtain the device or arrangements will be through a medical supply company approved by your insurance. Some patients may opt to use a Roll-a-bout or wheel chair. These devices can be obtained through your local medical supply store. Please contact the office (414-805-7442) with the medical supply store of your choice and a prescription can be faxed in. Regardless of the modality used to maintain your non-weight bearing status, please practice in your home prior to surgery as repetition will reduce the risk of falls post-operatively. Removing throw rugs and clearing wider pathways through your home will also make navigating with crutches or walker easier and diminish the risk of falls.

During the period when strict elevation is required (the first ten days) you will need help with activities of daily living such as laundry, cooking, and cleaning. Please plan ahead and consider having friends or family stay with you. Driving is contraindicated during the acute post-operative recovery phase and may be prohibited for a longer period of time if your right foot requires immobilization. Showering will also be difficult during the recovery phase as you are unable to place weight on the surgical leg and cast/dressing needs to be kept clean and dry. Consider the use of a shower chair and/or hand held shower head. You will need to protect the leg by leaving it outside the shower as well as using bags or a plastic cast sleeve (brochure available in cast room) to ensure dressings remain dry.

Postoperative Visits

Day 0-10

- Inpatient procedure: The Procedure takes about 2-3 hours. Patients usually require a 1-2 night stay in the hospital following the procedure.
- Anesthesia: This is done under a general anesthetic. A popliteal block, which injects local anesthetic behind the knee, may also be administered pre-operatively to enhance post-operative pain control.
- Dressings: Following the procedure, a bi-valved cast or splint will be applied to the lower leg. This dressing is to be kept clean, dry and left in place until you return to clinic.
- Non-weightbearing: To ensure optimal surgical results, you will be unable to bear weight on your operative side. The use of crutches or walker is required. Activities are strictly limited during this time.
- Elevation: Strict elevation above heart level (toes above the nose) for the first ten days is important to your recovery as it helps to minimize pain and swelling. Swelling can adversely affect the soft tissue by placing increased tension on incisions putting them at increased risk for dehiscence.
- Pain Control: Pain medications will be prescribed to be used as needed. Pre-Operative nerve blocks can last between 8 to 12 hours; however, waiting to take pain medication until the block has completely worn off can result in increased breakthrough pain which can be difficult to manage. Please plan accordingly and take your medication promptly when sensation begins to return to the foot usually indicated by a tingling sensation in the toes or mild discomfort at the

surgical site. Pain medications may be taken on a scheduled basis in the early post-operative recovery phase as this is when the pain is most intense.

Day 10

First postoperative visit with suture removal and nonweightbearing radiographs.

- Ankle fusion: Cast immobilization for 5 weeks, non-weightbearing, elevate as needed.
- Total Ankle: Cast immobilization for 3 weeks, non-weightbearing, elevate as needed. At week 4, transition to boot for active ROM exercise but continued non-weightbearing.

Week 6 - 12

- Ankle fusion: weightbearing radiographs in clinic.
Physical therapy instituted for gait training and advancement of weightbearing status 10-100% within boot over 6 - 8 weeks. Wean from boot around week 12 weeks into shoe modifications (rocker sole, SACH heel).
- Total Ankle: weightbearing radiographs in clinic.
Physical therapy instituted for ROM exercises and advancement of weightbearing status 10-100% within boot over 6 - 8 weeks. Wean from boot around week 12 into shoes with shoe modifications.

Month 3 - 6

Increase activities as tolerated. It may require 10-12 months for complete rehabilitation. Compliance with home physical therapy protocol following discharge from formal physical therapy is key to improving strengthening and endurance of the foot and ankle. Swelling can persist up to 6 – 8 months. The use of compression stockings can help diminish post-operative swelling.

Scar Management: Steri-strips, which were placed over the incision following suture removal, will gradually fall off between week 6-8. Do not pull at these; you may trim the loose edges. Once the Steri-strips have fallen off, you may massage Vitamin E oil or Mederma into the incisions twice a day. Silicone gel strips should also be used in conjunction with the other scar management modalities. These can be obtained from the cast room.

If any questions arise, please contact the office at (414) 805-7442 between 8:00 am and 4:30 pm Monday through Friday. Leave your number and message, Dr. Marks, Jamie, his physician assistant, or Mary S., his nurse, will return your call.