

Rehabilitation Guidelines for Total Ankle Arthroplasty

These rehabilitation guidelines are presented in a criterion-based progression. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, comorbidities, pre-surgical range of motion, strength, health/functional status, rehabilitation compliance, learning barriers and complications. Specific time frames, restrictions and precautions are given to protect healing tissues and surgical reconstruction. Attention may be given to other musculoskeletal issues in areas above the replaced joint that can influence the outcome of the total ankle arthroplasty. The goal of this procedure is to restore daily function and allow return to an active, healthy lifestyle.

Postoperative Guidelines

Pain and swelling

This procedure can be painful during the recovery period and given the extensive nature of the surgery, can cause swelling. It is normal for the foot and ankle to be swollen 6–12 months postoperatively. Redness does not necessarily indicate infection. Significant drainage from the wound is usually a sign of infection.

Driving

If the operation is on the right foot, the patient may return to driving when they can safely demonstrate an emergency stop to someone else. To ensure legality, the patient should contact their local insurer.

Return to Work

Usually the patient can return to work four months postoperative. The following should be taken into consideration:

- Type of work
- Surgeon's approval
- Postoperative complications
- No patient with a total ankle replacement should be doing work that causes impact to the joint

Outpatient Rehabilitation Guidelines for Total Ankle Arthroplasty

Phase I (surgery to 6 weeks after surgery)

Appointments	<ul style="list-style-type: none"> • Dr. Williams' patients: Rehabilitation appointments begin 14 days after surgery, 1–2 times per week • Dr. Guiao's and Dr. Rongstad's patients: Rehabilitation appointments begin at week 6 (patients will have Jones dressing for first 2 weeks and are casted from weeks 2–6)
Rehabilitation Goals and Priorities	<ul style="list-style-type: none"> • ADLs with safe crutch/walker use; instruction as needed • Control swelling and pain • Maintain hip and knee ROM • Increase hip and core strength
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • Frequent elevation of ankle above the level of the heart • Dr. Williams's patients may begin ankle ROM at 2 weeks (DF/PF) • No ankle ROM until week 6 for Dr. Guiao's and Dr. Rongstad's patients • Four-way leg raises in lying • Knee AROM • Transverse abdominis recruitment • Knee, hip and core strengthening • Edema massage
Precautions	<ul style="list-style-type: none"> • Non-weight bearing until week 6 • Dr. Williams's patients will be in short leg splint for two weeks followed by CAM boot one month during the 6 weeks of non-weightbearing • Dr. Guiao's and Dr. Rongstad's patients will be in short cast for first 6 weeks • Watch for signs of infection • Avoid long periods of dependent positioning of the foot and complete frequent elevation (no more than 1.5 hours per day or 30 minutes at a time)
Cardiovascular Exercise	<ul style="list-style-type: none"> • Upper body ergometer (UBE)
Progression Criteria	<ul style="list-style-type: none"> • Six weeks after surgery • No wound complications

Outpatient Rehabilitation Guidelines for Total Ankle Arthroplasty

Phase II (begin after meeting Phase I criteria, usually 6 weeks after surgery)

Appointments	<ul style="list-style-type: none"> • Rehabilitation appointments are 1–2 times per week
Rehabilitation Goals and Priorities	<ul style="list-style-type: none"> • Reduce swelling • Increase ankle ROM in all planes • Weight bearing acceptance in boot with safe ADL progression in standing • Increase mobility of scar • Maintain hip/knee ROM, strength and flexibility
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Gait training and weight shifts • Ankle active range of motion (AROM)/passive range of motion (PROM) • Calf stretching • Scar massage and soft tissue mobilization of calf • Joint mobilization—focus on talocrural distraction to improve ankle DF/PF • Four-way ankle isometrics • Seated tilt/BAPS board • Four-way leg raises in standing • Transverse abdominis strengthening
Precautions	<ul style="list-style-type: none"> • Progress weightbearing as tolerated (WBAT) in boot per surgeon's instructions • For Dr. Williams' patients, progress weightbearing in the boot gradually over 4 weeks
Cardiovascular Exercise	<ul style="list-style-type: none"> • Stationary bike (in boot, no resistance) • Swimming (once wound is fully healed)
Progression Criteria	<ul style="list-style-type: none"> • Able to ambulate independently in walking boot • Active ROM between 5° of dorsiflexion and 20° of plantarflexion

Outpatient Rehabilitation Guidelines for Total Ankle Arthroplasty

Phase III (begin after meeting Phase II criteria, usually 10 weeks after surgery)

Appointments	<ul style="list-style-type: none"> • Rehabilitation appointments 1 time per week
Rehabilitation Goals and Priorities	<ul style="list-style-type: none"> • Weight bearing as tolerated (WBAT) in shoe • Normalize gait without assistive device • Retrain ankle proprioception • Improve ankle strength
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Gait training • Scar massage and joint mobilizations as needed • Calf stretching • Four-way ankle strengthening with resistance band • Balance and proprioception exercises • Functional movements (squats, steps) • Core and lower extremity strengthening
Precautions	<ul style="list-style-type: none"> • Avoid exercises that create movement compensations • Wean from boot and progress WBAT, with use of ASO as needed
Cardiovascular Exercise	<ul style="list-style-type: none"> • Stationary bike • Swimming
Progression Criteria	<ul style="list-style-type: none"> • Able to ambulate independently in shoe • Able to complete bilateral heel raises

Outpatient Rehabilitation Guidelines for Total Ankle Arthroplasty

Phase IV (begin after meeting Phase II criteria, usually 14 weeks after surgery)

Appointments	<ul style="list-style-type: none"> • Rehabilitations appointments are once every 2–4 weeks
Rehabilitation Goals and Priorities	<ul style="list-style-type: none"> • Normal gait pattern • Single leg stance with good control for >10 seconds • Ankle ROM between 10° dorsiflexion to 35° plantarflexion • Able to complete single leg heel raise
Suggested Therapeutic Exercise	<ul style="list-style-type: none"> • Balance and proprioception exercises on unstable surfaces • Higher level core and lower extremity strengthening exercises • Higher level functional movements (floor transfers, lunges, walking on hillsides)
Precautions	<ul style="list-style-type: none"> • Avoid forceful impact activities • Anticipate return to golf at 3–4 months, hiking 4–5 months
Cardiovascular Exercise	<ul style="list-style-type: none"> • Stationary bike progressing to outdoor cycling • Swimming • Walking • Golfing

These rehabilitation guidelines were developed collaboratively between UW Health and UnityPoint Health - Meriter Rehabilitation and the UW Health Joint Replacement Surgeons.

Updated 4/2019

References

Martin RL, Stewart GW, Conti SF. Posttraumatic Ankle Arthritis: An Update on Conservative and Surgical Management. *J Orthop Sports Phys Ther.* 2007 May;37(5):253-9.

Steck JK, Anderson JB. Total Ankle Arthroplasty: Indications and Avoiding Complications. *Clin Podiatr Med Surg.* 2009 Apr;26(2):303-24

At UW Health, patients may have advanced diagnostic and /or treatment options, or may receive educational materials that vary from this information. Please be aware that this information is not intended to replace the care or advice given by your physician or health care provider. It is neither intended nor implied to be a substitute for professional advice. Call your health provider immediately if you think you may have a medical emergency. Always seek the advice of your physician or other qualified health provider prior to starting any new treatment or with any question you may have regarding a medical condition.

Copyright 2019 UW Health Orthopedics and Rehabilitation