



Postoperative Rehabilitation following Ankle Arthroplasty

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Select Physical Therapy

Arthritis of the Foot and Ankle :Types

- ▶ Osteoarthritis–Primary
- ▶ Rheumatoid
- ▶ Post Traumatic



Forces on the Ankle in Walking

- ▶ 3–5 times an individual's body weight
- ▶ Increased force attenuation with increase in Body weight
- ▶ Ability to Achieve Functional Gait Influenced by Talocrural DF , Lower Extremity Alignment, and Proximal Hip Stabilization.

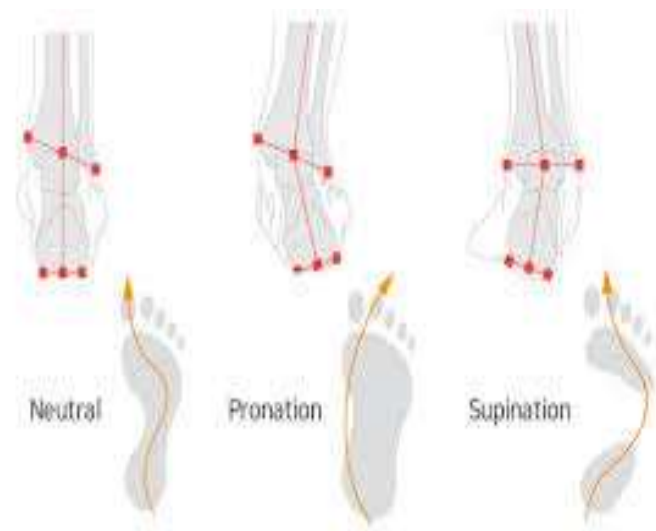
Implant designs

- ▶ 1st Generation Implant(Endoprostheses).
Developed 1970.
- ▶ 2nd Generation 3 primary elements:
Polyethylene Insert(mobile or Fixed), Tibial
Component, and Talar Component.
- ▶ STAR/ Agility TAR/Infinity/In–bone/Vantage



Functional Goals: Post op

- ▶ Stable Platform for functional progression
- ▶ Functional Ankle DF
- ▶ Core Stabilization
- ▶ Hip Stabilization
- ▶ Functional Heel raise
- ▶ Dynamic Balance



Guidelines Following Total Ankle Arthroplasty

- ▶ Primary Goal is to restore Functional ADL, allow safe return to Active Lifestyle.
- ▶ General time frames are dependent on Patients age, Pre surgical Health and functional status, Pre-existing Co-morbidities, and MD specific Guidelines.
- ▶ Specific time frames , restrictions, and precautions are provided by MD to protect healing tissues and surgical procedure.
- ▶ Generally can anticipate some degree of swelling for 6-12 months
- ▶ If returning to work avoidance of high impact on ankle joint

Phase I : Approximately 6 weeks after Surgery

- ▶ Cast To CAM Boot Non-Weight Bearing generally 4-6 weeks.
- ▶ Effusion control avoiding long periods of dependent positioning
- ▶ Ankle AROM Primary DF/PF
- ▶ Hip/Knee Range of Motion
- ▶ 4 way SLR and Transverse Abdominis Activation
- ▶ Soft Tissue Mobilization
- ▶ Consider UBE(Upper Body Ergometer) for Cardio

TA Activation



Phase II: Generally 6 weeks Post Op

- ▶ Gait Training in CAM BOOT advancing per MD protocol.
- ▶ Ankle ROM PF/DF . Inversion/Eversion Per MD Direction/Protocol.
- ▶ Scar Mobilization/ Posterior Compartment Soft Tissue Mobilization
- ▶ Ankle Isometrics
- ▶ Core Strengthening
- ▶ Joint Mobilization to Improved DF/PF (Talocrual Distraction).
- ▶ Stationary Bike In Boot (No resistance)
- ▶ Aquatics when full wound Closure per MD Guidelines
- ▶ Criteria for Advancement 5 degrees DF and 20 PF.
Ambulate in Boot

Exercise/Treatment concepts



Phase III: Generally 10–12 Weeks

Post op

- ▶ General Goals : WBAT in Shoe, Improve Proprioception, Improve Strength, Advance Ankle ROM, and Normalize Gait W/O AD.
- ▶ Functional Exercise Concepts: Balance and Proprioception, Functional Sit to Stand , Functional squats, Step Climbing, Avoid Compensatory Movement patterns.
- ▶ 4 Way Ankle resistance Bands
- ▶ Core and LE Strengthening
- ▶ General Criteria progression: Able to Ambulate independently in shoe and perform Functional heel raise.

Phase IV : approximately 14–16 weeks post op

- ▶ Functional gait
- ▶ Ankle AROM 10 degrees and PF 35.
- ▶ Unilateral stance/Balance Strategy at least 10 seconds
- ▶ Functional Exercise concepts: Walking on Various surfaces, Modified lunge, proprioception on unstable surface.
- ▶ Walking Progression
- ▶ Functional Activity progression

References: TAR

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Thank You

