

# Modified Brostrom Procedure Rehabilitation Protocol

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## Preoperative

### **Goals:**

1. *Full functional ROM*
2. *0-minimml inflammation*
3. *Functional Strength*
4. *Independent with Crutches NWB (to include all normal community barriers)*

### **Treatment:**

- Modalities to control inflammation
- A/A ROM and AROM to restore functional dorsiflexion and plantarflexion
- HEP for strengthening ankle in all directions safely
- Crutch training for flat surfaces, stairs, and any other community barriers the patient may encounter
- Educate on post op program

## Postoperative Week 0-2

### **Goals:**

1. *Protect the healing tissue*
2. *maintain and progress strength of non-operative joints*

### **Treatment:**

- NWB using assistive device.
- Patient in cast or protective boot
- **NO ROM and NO STRENGTHENING OF THE OPERATIVE ANKLE**
- Therapeutic exercise for the knee and hip of the operative side in all planes open chain
- Assist patient with any community restrictions they might have
- Continue non weight bearing training for trunk and UE as needed. Consider UBE for Cardio

## Postoperative Week 3-4

### **Goals:**

1. *Protect healing tissue*
2. *Progress to PWB at week 3 and to FWB after week 4 as requested by the surgeon*
3. *Continue general strengthening of the LE, UE and trunk as indicated*
4. *Progress ankle specific exercise (if in boot and not in cast)*

**Treatment:**

- Progress to PWB with assistive device with focus on normal gait patterning in protective cast or boot ONLY
- If in cast:
  - o Initiate exercise bike with 0-minimal resistance with slow progressions based on tolerance and weight bearing status
  - o Total Gym/Leg Press at 10% body weight (performed bilaterally) and progress according to toleration and patients weight bearing status
  - o Continue LE, UE, and trunk training
- If patient is out of their cast and in a walking boot:
  - o Remove boot for beginning AROM exercises for Dorsiflexion and Plantarflexion only (no inversion/eversion) without resistance. Okay to do at home.
  - o Initiate Pool Therapy with activities in the AP plane only with MD approval
    - Should be chest high water to satisfy permissible weight bearing
    - Decrease depth of water based on tolerance and patient's WB status
  - o Modalities to help control/decrease inflammation and pain

**Postoperative Week 5 – 6**

***Goals:***

1. *Protect healing tissues*
2. *Progress to FWB and elimination of assistive devices as patient is able to demonstrate normalized gait*
3. *Progress therapeutic exercises to include strengthening exercises specific to the ankle*
4. *Continue general strengthening of LE, UE and trunk as indicated*

**Treatment:** (Patient to wear support throughout program)

- Educate how to ambulate with less assistive devices with focus on normal gait patterning
- Progress exercise bike time and intensity as tolerated
- Initiate elliptical training
- Progress controlled weight bearing closed chain training on total gym/leg press
- Progress ROM for Dorsiflexion and Plantarflexion only (no inversion/eversion) if out of cast. Can be while weight bearing
- Progress pool therapy if out of cast.
- Initiate intrinsic training of the foot
  - o Toe curls
  - o Toe spreading
- Manual therapy to the metatarsals.
  - Caution: Avoid mobilizing the talocrural and subtalar joints
- Light soft tissue work
- Modalities to help control/decrease inflammation and pain

### Postoperative Week 7 – 12

**Goals:**

1. *Protect healing tissues*
2. *Ambulation without assistive device and good gait pattern*
3. *Patient demonstrates fair static and dynamic balance*
4. *Patient has full functional ROM of the ankle*

**Treatment:** (Patient will wear support throughout program)

- Add inversion and eversion AROM exercises
- Progress closed chain exercise
- Progress proprioceptive training to include static and dynamic balance progressing to varied surfaces, plyoback as patient is able
- Add Treadmill and Stair-stepper
- Continue exercise bike and elliptical
- Progress intrinsic work combining intrinsic with PNF diagonals.

### Postoperative Week 13-24

**Goals:**

1. *Patient will demonstrate full strength throughout full ROM*
2. *Normalized static and dynamic proprioception and kinesthetic awareness*
3. *Patient to return to all pre-injury activity*

**Treatment:** (patient should wear a support throughout)

- Increase intensity of Exercise Bike, Elliptical, Stair-stepper, and Treadmill
  - o Include jogging and progressing to running
- Progress patient into plyometric program
  - o Start in the AP plane and progress into the lateral movements and diagonals
- Increase intensity and resistance in closed chain strengthening to include function/activity specific
- Running
  - o 25% forward and backward flat surfaces
  - o 50% forward and backward flat surfaces
  - o 75% forward and backward flat surfaces
  - o 100% forward and backward flat surfaces
  - o Weave step beginning at 25% and building up in speed
  - o Incorporate the above on grassy surface

**Return to Sports:** Patient needs to demonstrate full proprioception and ability to work in sport specific drills at full speed in all planes without evidence of favoring prior to be released to sports. Patient should continue to wear a support upon return.