



## REHAB PROTOCOL TIBIAL TUBERCLE ORIF

**Weight bearing status:** Weight-bearing as tolerated with ROM brace locked in extension

### Phase 1 - Weeks 2-6

- Criteria for progression: Good quadriceps set, no signs of active inflammation
- Note: Rate of progression based on swelling/inflammation.
- Goals: Increase flexion
- Avoid overstressing fixation
- Control of quadriceps and VMO for proper patellar tracking

### **Treatment:**

- Brace: keep locked in extension for ambulation as per physician's orders
- Weight bearing: As tolerated, in ROM brace locked in extension
- Progress to weight-bearing gastrocnemius/soleus stretching, full flexion with heel slides
- Swelling/Inflammation: Cryotherapy, NSAIDS, Elevation and Ankle Pumps
- Range of Motion: Rate of progression based upon swelling/inflammation.

At least 30 degrees flexion (Week 3)

At least 60 degrees flexion (Week 4)

At least 90 degrees flexion (Week 6)

### **Full flexion (Week 8-10)**

- Aquatic therapy
- Balance exercises
- Stationary bike – low-resistance, high seat
- Wall slides 0-45 degrees of flexion progress to mini squats
- Muscle Retraining: Electrical muscle stimulation to quads
- Quad Setting Isometrics, Straight Leg Raises (flexion), Hip Adduction
- Proprioception Training

- Flexibility: Continue Hamstring, Calf Stretches, Initiate quadriceps muscle stretching

### **Phase II Week 6-12**

- Criteria for progression: No quadriceps extensor lag with SLR, nonantalgic gait, no evidence of
- lateral patellar tracking or instability, FROM
- Goals: Eliminate any joint swelling
- Improve muscular strength and control without exacerbation of symptoms.
- Functional exercise movements

### **Treatment:**

- Discontinue brace
- Quadriceps setting isometrics, continue E-stim if needed
- Step-ups - 2 inches progress to 8 inches
- 4 way Hip Machine (hip adduction, abduction, extension, and flexion)
- Lateral Step-Ups (if able)
- Front Step-Ups (if able)
- Squats against wall (0-60 degrees)\*
- Knee Extension (90-0 degrees), painfree arc
- Proprioceptive Training.
- Flexibility: Continue all stretching exercises for LE
- Swelling/Inflammation: Continue use of ice, compression, and elevation, as needed.
- Stationary bike – moderate resistance
- Endurance – swimming, Stairmaster
- Gait training
- 4-way hip exercise
- Leg press 0-45 degrees of flexion
- Toe raises, hamstring curls
- Continue balance activities
- Hamstrings, gastrocnemius/soleus, add quadriceps and iliotibial band stretches

### **Phase III Week 12-16**

Criteria for progression: Good to normal quadriceps strength, no soft tissue complaints, no evidence of patellar instability, clearance from physician to progress closed-chain exercises and resume full or partial activity. Knee extension strength 70% of contralateral knee

Goals: Achieve maximal strength and endurance.

Treatment:

- Progression of closed-kinetic chain exercises
- Jogging/running in pool with resistance
- Functional progression, sport-specific training
- Exercises: Wall Squats (0-70 degrees) painfree arc, Vertical Squats (0-60 degrees)\*
- Continue Leg Press, Forward Lunges, Lateral Lunges, Lateral Step-ups, Front Step-ups
- Knee Extension, painfree arc
- Sport Specific functional drills (competitive athletes)
- Jogging Program
- Continue all stretching
- Continue use of ice as needed

#### **Phase V Return to Activity Week 16-20**

Criteria for progression: Good to normal quadriceps strength, no soft tissue complaints, no evidence of patellar instability, clearance from physician to progress closed-chain exercises and resume full or partial activity

Goal: Functional return to work/sport

Treatment:

- Exercises: Functional Drills
- Continue Jogging/Running Program
- Strengthening Exercises (selected)
- Flexibility Exercises

Each patient is an individual and should be treated as such. Work together with the referring orthopedic for optimal patient outcome.