

High Tibial Osteotomy:

The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after High Tibial Osteotomy. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

INDIVIDUAL CONSIDERATIONS:

PHASE I (Weeks 0-7)**Rehabilitation Precautions**

- Patient will remain in long-leg post-operative brace for 8 weeks gradually increasing
- Weight-bearing status from toe-touch to full
- AROM is restricted to 110 degrees for the first two weeks
- AROM is progressed to 135 degrees after two weeks

Brace

- Long-leg brace

Weight-bearing Status

- TTWB x 6 weeks
- Progress to FWB x around 8 weeks but not until cleared by Dr. Hughes

Therapeutic Exercises

- Patella mobilizations
- Modalities for pain/edema management

- Cryotherapy
 - Electrical Stimulation
- Stretching
 - Hamstrings, gastrocnemius/soleus, iliotibial band, quadriceps
- Strengthening
 - Quad sets
 - Straight leg raises
 - Active knee extension
 - Closed-chain exercises: toe raises, mini-squats, wall sits, TKE
 - Leg Press (70 -10 degrees)
- Conditioning
 - UBE
 - Stationary bike
 - Aquatics program

*Progression based on monitoring patient swelling, pain and motion

PHASE II (Weeks 7-8)

Brace

- Long-leg brace

Weight-bearing Status

- 75% by week 7
- May progress to FWB as tolerated at week 8

Therapeutic Exercises

- Patellar mobilizations
- Modalities for pain/edema management
 - Cryotherapy
- Stretching
 - Hamstrings, gastrocnemius/soleus, iliotibial band, quadriceps
- Strengthening
 - Quad sets
 - Straight leg raises
 - Active knee extension
 - Closed chain exercises: toe raises, mini-squats, wall sits
 - Leg press (70-10 degrees)
 - Hip abduction/adduction and/or multi-hip machine
 - Knee flexion hamstring curls (90 degrees)
 - Knee extension quadriceps (90-30 degrees)
 - Core strengthening
- Conditioning

- UBE
- Hamstrings, gastrocnemius/soleus, iliotibial band, quadriceps
- Strengthening
 - Leg press (70-10 deg)
 - Hip abduction/adduction steamboat and/or multi-hip machine
 - Knee flexion: hamstring curls (90 degrees)
 - Knee extension: quadriceps (90-30 degrees)
 - Core strengthening
- Balance/Proprioceptive Training
 - Weight-shifts
 - Mini trampoline
 - BAPS board
 - Step-downs
 - BOSU mini-squats
 - Plyometric progression
- Conditioning
 - Stationary bike
 - Aquatics program
 - Swimming (kicking motion)
 - Walking
 - Stair climber/elliptical
- Sports-specific exercise (50-75%)
 - Line jumps
 - Carioca
 - Ladder drills

PHASE III (Week 9 - 5 months)

Goals

- Modalities for pain/edema management
 - Cryotherapy
- Stretching
 - Hamstrings, gastrocnemius/soleus, iliotibial band, quadriceps
- Strengthening
 - Leg Press
 - Hip abduction/adduction steamboat and/or multi-hip machine
 - Knee flexion: hamstring curls
 - Knee extension: quadriceps
 - Core Strengthening
- Balance/Proprioceptive Training
 - Weight-shifts
 - Mini trampoline
 - BAPS board

- Step-downs
- BOSU mini-squats