

University Orthopedics, Inc.  
Sports Medicine Division

## HIGH TIBIAL OSTEOTOMY REHABILITATION PROTOCOL

This protocol was developed for patients who have had a high tibial osteotomy. Please note this protocol is a guideline. Patients with additional surgery will progress at different rates. Achieving the criteria of each phase should be emphasized more than the approximate duration.

### **PHASE I: ~0-2 WEEKS POSTOPERATIVE**

#### GOALS:

- Pain/effusion control
- ROM—0 to 90 degrees

#### AMBULATION, BRACING, AND DRESSING:

Dressing – POD 1: Debulk dressing, TED Hose in place

– POD 2: Change dressing, keep wound covered, continue TED Hose

– POD 7-10: Sutures out, D/C TED Hose when effusion is resolved

Brace – 0-90 degrees

Crutches – Non weight bearing (NWB) x 6 weeks

#### EXERCISES:

CPM in hospital – 0-90 degrees

AROM, AAROM 0-90 degrees

Patellar mobilization (teach patient)

Calf pumping

Passive extension with heel on bolster or prone hangs

Electrical stimulation with quad sets and SLR

Quad sets, Co-contractions quads/hams

Straight leg raise (SLR) x 4 on mat, in brace (parallel bars if poor quad control)

Stretches – Hamstring, Hip flexors, ITB

Ice pack with knee in full extension after exercise

### **PHASE II: ~2-4 WEEKS POSTOPERATIVE**

#### GOALS:

- ROM 0-120 degrees
- No extensor lag

#### AMBULATION AND BRACE USE:

Brace – Open to available range

Crutches – NWB

#### EXERCISES:

Scar mobilization when incision healed

Co-contractions quads/hamstring at 0, 30, 60, 90 degrees

SLR x 4 on mat, no brace – Add weight above knee if good quad control

Stationary bike for ROM

### **PHASE III: ~4-8 WEEKS POSTOPERATIVE**

#### GOAL: FULL ROM

#### AMBULATION AND BRACE USE:

Brace – Open to available range

Crutches – NWB x 6wks then Partial weight bearing (PWB)

Continue appropriate previous exercises

PROM, AAROM, AROM to regain full motion

SLR x 4 on mat, no brace – Light weight below the knee

Weight shifts, Mini squats – In parallel bars

Leg press with light resistance

Hamstring curls – Carpet drags or rolling stool (closed chain)

Double leg heel raises

Stationary bike – Progressive resistance and time

Pool therapy – Chest deep exercises in sagittal plane only

### **PHASE IV: ~8-12 WEEKS POSTOPERATIVE**

GOALS:

- Normal gait
- Walk 2 miles at 15min/mile pace

AMBULATION AND BRACE USE:

Brace – Continue until 12 weeks post-op  
Crutches – Weight bearing as tolerated (WBAT) (D/C when gait is normal)

EXERCISES:

Continue appropriate previous exercises  
Forward, lateral and retro step downs – No flexion > 45 degrees (small step)  
SLR x 4 with Theraband bilaterally  
Wall squats – No knee flexion past 45 degrees  
Single leg heel raises  
Proprioceptive training – Single leg standing in parallel bars  
– Double leg BAPS for weight shift  
– Progress to single leg BAPS, ball toss and body blade  
Treadmill – Forwards and backwards walking  
– Walking progression program  
Elliptical trainer  
Pool therapy – Walk in waist deep water

### **PHASE V: ~3-4 MONTHS POSTOPERATIVE**

GOAL: Jog 2 miles at easy pace

AMBULATION AND BRACE USE:

D/C crutches and brace

EXERCISES:

Continue appropriate previous exercises with progressive resistance  
Forward, lateral and retro step downs – Medium to large step  
Hamstring curl weight machine  
Knee extension weight machine  
Hip weight machine x 4 bilaterally  
Fitter  
Slide board  
Stairmaster  
Swimming  
Treadmill – Running progression program

### **PHASE VI: ~4-6 MONTHS POSTOPERATIVE**

GOAL: Return to all activities

EXERCISES:

Continue appropriate previous exercises  
Agility drills / Plyometrics  
Sit-up progression  
Progressive weight training program  
Running progression to track  
Transition to home / gym program

**No contact sports until 6 months post-op**

\*\*This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process.