



THE ORTHOPEDIC PARTNERS
AN RCM CLINIC

PARK CITY • HEBER CITY • SALT LAKE CITY

TIBIAL TUBERCLE OSTEOTOMY POST-OPERATIVE PROTOCOL

PHASE I – MAXIMUM PROTECTION

WEEKS 0-2:

- Use crutches **non-weight bearing for 2 weeks**
- **Brace for 6 weeks in full extension**
- Ice and modalities to reduce pain and inflammation
 - Exercises:
 - Aggressive patellar mobility drills
 - Range of motion: 0°-45° knee flexion
 - Begin submaximal quadriceps setting

WEEKS 2-4:

- Initiate weightbearing as tolerated and wean off crutches
- Continue with inflammation control
 - Exercises:
 - Continue with aggressive patellar mobility
 - Range of motion: 0°-60°
 - Continue with submaximal quadriceps setting, isometric hamstring/groin and global lower leg strengthening

WEEKS 4-6:

- Progressive weight bearing per physician's instructions
- Continue with ice
 - Exercises:
 - Aggressive patellar mobility
 - Range of motion: 0°-90° (by week 6)
 - Increase intensity with quadriceps setting

PHASE II – PROGRESSIVE RANGE OF MOTION AND EARLY STRENGTHENING

WEEKS 6-8:

- Brace:
 - Week 6: Open brace to 45°- 60° of flexion
 - Week 7: Open brace to 90° of flexion
- Continue with swelling control
 - Exercises
 - Patellar mobility
 - Gradually progress to full range of motion
 - Begin multi-plane straight leg raising and closed kinetic chain strengthening program focusing on quality VMO function.
 - Initiate open kinetic chain progressing to closed kinetic chain multi-plane hip strengthening
 - Normalize gait pattern
 - Begin stationary bike
 - Initiate pool program



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WEEKS 8-10:

- Brace:
 - Wean out of brace
- Exercises:
 - Continue with patellar mobility drills
 - Normalize gait pattern
 - Restore full ROM
 - Progress open and closed kinetic chain program from bilateral to unilateral
 - Increase intensity on stationary bike
 - Begin treadmill walking program

WEEKS 10-12:

- Exercises:
 - Full ROM
 - Aggressive terminal quadriceps stretching
 - Advance unilateral open and closed kinetic chain strengthening
 - Initiate proprioception drills
 - May introduce elliptical trainer

PHASE III – PROGRESSIVE STRENGTHENING

WEEKS 12-16:

- Exercises:
 - Advance open and closed kinetic chain strengthening
 - Increase intensity on bike, treadmill, and elliptical trainer
 - Increase difficulty and intensity on proprioception drills
 - Begin gym strengthening: leg press, hamstring curls, ab/adduction; avoid lunges and knee extensions
 - Begin multi-directional functional cord program
 - Initiate pool running program

PHASE IV – ADVANCED STRENGTHENING AND FUNCTIONAL DRILLS

WEEKS 16-20:

- Exercises:
 - Continue pool running program advancing to land as tolerated

PHASE V – PLYOMETRIC DRILLS AND RETURN TO SPORT PHASE

WEEKS 20-24:

- Exercises:
 - Advance gym strengthening
 - Progress running/sprinting program
 - Begin multi-directional field/court drills
 - Begin bilateral progressing to unilateral plyometric drills
 - Follow-up appointment with physician at 6 months



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- Other Considerations:
 - Sports test for return to competition **6 months post-op** per physician's release