



4140 Centennial Hills Blvd., Suite A • Casper, WY 82609 • (307) 265-7205

MEDIAL PATELLOFEMORAL LIGAMENT REPAIR & TIBIAL TUBERCLE OSTEOTOMY

Revised SEP 2013

SPECIAL PRECAUTIONS/ LIMITATIONS:

1) CRUTCHES/ WEIGHT BEARING:

Partial weight bearing at day 1 in brace **locked at 0 extension** progress to WBAT in brace **locked at 0 extension X 4- 6 WEEKS.**

2) BRACE: 0 - 6 WEEKS:

Wear at all time to include sleep. Can unlock for sitting, otherwise to be locked in full 0 extension during ambulation. Progressive ROM motion limits set as below.

3) ROM:

PROGRESSIVE FLEXION LIMITS:

Weeks 0 -2: 45

2-4: 60

4-6: 90

after 6 weeks: progress flexion as tolerated

*****Patient educated in the application of the post-op brace assuring that hinges are properly aligned with knee and how to lock and unlock brace*****

ADDITIONAL INSTRUCTIONS/ PRECAUTIONS:

- 1) Should AVOID LATERAL patellar mobilization (pushing patella outward), May need to do medial, superior, inferior or lateral tilting of patellar mobilizations **ONLY** if directed by and instructed by Physical Therapy.**
- 2) Achieving FULL PASSIVE EXTENSION as soon as possible and MAINTAINING it is essential.**
- 3) Additional limitations to the rehabilitation plan may be added post-operatively depending on associated surgical findings and surgeon's preference. Adherence to the protocol guidelines and maintaining a consistent home exercise program as directed is critical in achieving an optimal outcome.**



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- 4) **Liberal use of “Game Ready” ice/ compression device if available or ice packs, compression Ace wrap and/or TED Hose and elevation of lower extremity should be done to control swelling.**

REHABILITATION PROGRAM

PHASE 1: WEEKS 0-4:

WEIGHT BEARING and BRACE:

*Gait training w/crutches WBAT in post-op brace locked at 0° extension during ambulation-

RANGE OF MOTION:

- 1) **PASSIVE Extension to FULL ASAP:**
- 2) **FLEXION LIMITED** : progression as above; Can sit w/ knee flexed with brace unlocked.

STRENGTHENING:

- Ankle pumps, QS, SLR's w/o weight
- PWB heel raises knee in full extension
- HS curls within ROM limits; light ankle weights as tolerated
- Electrical stimulation to quad as needed.
- Progress SLR's with ankle weights if no extensor lag.
- Short Arc quad (if no significant patellar chondral lesion) after about 2 weeks progress light ankle weights as tolerated

**GOALS: FULL PASSIVE EXTENSION ASAP
FLEXION LIMITED with progression above
QUAD CONTROL
PAIN AND SWELLING CONTROL**

PHASE II: WEEKS 4 - 6:

RANGE OF MOTION: progress to 90 flexion.



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STRENGTHENING: continue above- **ADD:** Ankle weights for SLR's (if no ext. lag) and HS curls.

Progress to:

- **PWB Weight shifting and single leg balancing onto affected limb in full 0 extension.**
- **4 WAY multi hip machine.**

STRETCHING: emphasis on IT band, HS, Hip flexors

GOALS:

Protected Flexion ROM limit 90
Weight bearing ambulation in locked brace
Improved strength, endurance, balance, function
Control pain and swelling

PHASE III: 6 - 9 weeks:

BRACE: DC post-op brace.

WEIGHT BEARING: Progress to full weight bearing, gait training and balancing as needed

ROM : Progress to Flexion to FULL as tolerated with AA/ PROM flexion exercises as needed

EXERCISE Progression:

- **Continue previous above**
- **Bicycling**
- **TOTAL Gym (adjust < 50% height): double leg “mini” Squats and Toe raises**
- **Leg Press – light weight, avoid deep flexion past about 45**
- **HS and Knee SAQ extension (if no significant patellar chondral lesion) light weight machine**
- **Wobble board**
- **Steamboats on floor with knee in extension**
- **Gait Training as needed**



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GOALS: Full ROM
Normal gait
Increased strength

PHASE IV: 9+ weeks - 4 months:

RANGE OF MOTION: maintain FULL Active and Passive ROM

PRECAUTIONS: AVOID DEEP FLEXION AND TWISTING ACTIVITIES

EXERCISE Progression:

- **“Mini” Lunges-** forward and lateral ; progress to Sport Cord
- **“Mini” Squats-** progress to single leg (ROM as above)
- **Leg Press-** weight machine at gym or with Sport Cord
- **Controlled Eccentric Step downs-** 3 way
- **Progressive HS strengthening: on machine, bridging on gym ball, TRX, “repeated contractions”, “Glut kicks” drill**
- **Theraband Side – Steps**
- **“Steamboats”—**bilateral, bent knee as able
- **Bicycle-** add resistance and time; interval training as tolerated
- **Treadmill-** Forward and retro walking
- **Elliptical Trainer-** progress as tolerated
- **Stairmaster-** single light resist, progress to double legged
- **Slowly Progress Balance/ Proprioceptive/ strength training** on unstable platforms
- **Slider Board**
- **Harness resisted Squats and Step-ups/downs**
- **Total Gym and/ or Shuttle MVP-** progressions: to single leg; increased height; to double leg Plyometrics
- **Home /GYM program for progressive bicycling, elliptical trainer and light weight training.**

GOALS: Progression of strength, endurance, functional activity, and independence

PHASE IV: 4- 6 MONTHS:

Continue above.

Progression:

- **Progressive Balance/ Proprioceptive/ strength, Functional LE training**



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- **Return to Run** program **ONLY if CLEARED** by surgeon and PT – criteria: 80% of uninvolved Single Leg Hop for time (15 seconds) and distance tests

GOALS: Progression of strength, endurance, functional activity, and independence

PHASE VI: 6 + MONTHS:

GOALS:

- **Normalized activity, strength, endurance, agility.**
- **progressive Jog/ Run on treadmill or level ground.**
- **Continue on a Home/ Gym based program with periodic Follow-up in PT and Orthopedic Clinics.**
- **RETURN TO FULL ACTIVITY/ DUTY: when cleared by surgeon and PT.**