

PATELLAR TENDON REALIGNMENT/DISTAL TUBERCLE SHIFT

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Post Op

- ROM
 - 0-90°, brace adjusted
- Hamstring Strengthening
 - Isometric heel digs
- Quad Strengthening
 - Isometric quad sets, no active extension
- Gait
 - WBAT with crutches and ROM braces
- Activities
 - Elevate knee, above hip, ice and perform ankle pumps, ½ hour QID
- Modalities
 - Interferential with ice for swelling if needed.
- Stretching
 - Seated hamstring and gastroc stretch/ seated and supported knee flexion

2 weeks:

- ROM
 - 0-110°, brace adjusted
- Hamstring Strengthening
 - Short arc ham curls 0-30°, no weights
- Quad Strengthening
 - Bent knee leg raises with brace. Continue Iso's
- Gait
 - FWB and no crutch if stable, minimize brace. PWB and 1 crutch if modified c/o discomfort and instability, continue brace. PWB and 2 crutches if significant c/o's continue brace.
- Activities
 - Stationary bike- depending on ROM. Continue elevation PRN
- Modalities
 - EMS to quad to stimulate VMO if appropriate
- Stretching
 - Continued same, add prone stretch for quad when 110° degrees reached

1 Month:

- ROM
 - 0-130°
- Hamstring Strengthening
 - SAH increases weight to 5% BW
- Quad Strengthening
 - Open chain activities: SLR with brace and 90-45° knee extension no weight. Closed chain activities: wall press against resistance, 0-30°. Lateral step ups, wall squats at 50% WB 0-30°. Depends on lateral x ray.
- Gait
 - Full weight bearing, no crutches and no brace if no limping and stable. Crutch and brace PRN otherwise.
- Activities
 - Stationary bike for 20 min. With minimal tension.
- Modalities
 - Continue EMS if needed and ice
- Stretching
 - Same for hamstring, with prone for quad and begin standing gastric and soleus stretches.

2 Months:

- ROM
 - Full ROM
- Hamstring Strengthening
 - Increase weight up to 10% BW
- Quad Strengthening
 - *need to see healed tibial tubercle before starting* Open chain: FAQ 90-45° degrees with weight, 5% of BW. SLR work up to 5% of BW. SAQ with no weight. If no patella pain. Closed chain: same as above, wall squats 0-45°. Add leg press, bilateral 100% BW, single 50% BW, and 0-45°. FWB without assistance.
- Gait
 - FWB without assist
- Activities
 - Increase bike to 30 minutes mod.
- Modalities
 - Ice PRN
- Stretching
 - Continued same as above.

3 Months:

- ROM
 - Full
- Hamstring Strengthening
 - Continued same
- Quad Strengthening
 - Continued same as above, increase FAQ to 100% BW through, 90-45° range. Leg press increase to 150% BW. Bilateral and 75, single, 0-60° FWB without assist.
- Gait
 - Begin incremental walking, up to 1 mile
- Activities
 - QOD. Bike or stair master, 30 minutes, on off days
- Stretching
 - Continued Program

4 Months:

- ROM
 - Full
- Hamstring Strengthening
 - Same as above
- Quad Strengthening
 - Open chain: same, with progression of FAQ through 90-0° range without weight. Then pre as tolerated up to 10% BW if no patellar pain. Closed chain: same, with leg press increased to 200% BW bilateral and 100% single 0-60° degrees, if no patellar pain
- Gait
 - FWB without assist
- Activities
 - Begin running program. Continued bike QOD
- Stretching
 - Continued Program