

Patellar Tendonopathy Protocol

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Acute Recovery (Phase I, 1-3 weeks)

Goals:

- 1) Decrease pain and inflammation
- 2) Stretch tight structures
- 3) Education in activity modification, posture, and core control
- 4) Progress through the eccentric training protocol (below)
- 5) Develop and maintain HEP

Avoid: Jumping, deep squatting, and rapid increases in exercise frequency and duration. Avoid painful activities or exercises. No sport specific training

Treatment:

- Eccentric exercise:
 - Around the world eccentric lowering leg raises (4 way), begin without weight; increase weight by 1# per week.
 - Eccentric squats on decline board (15-25 degrees) in Total gym, shuttle, or hack squat machine.
 - 15 reps x 3 sets 1/day. Ok to do upright and flat if machine and decline board are not available.
 - Limit squat to 60 degrees
 - Begin with partial weight-bearing then progress to full weight-bearing as tolerated. Advance from bilateral eccentric squats to unilateral eccentric, then unilateral eccentric/bilateral concentric as tolerated.
- Stretches: IT Band, hamstrings, quadriceps, hip adductors/abductors/flexors/IR/ER, gastroc/soleus
 - Incorporate into HEP
- Soft tissue mobilization
 - Transverse friction mobilization 5-10 minutes firmly 1-2x per day
- Core Strengthening exercises (Swiss ball, Pilates, yoga...).
- Modality PRN

Criteria for progression:

- 1) No pain with eccentric squat program

Rehabilitation and Strengthening (Phase II, weeks 4-6)

Goals:

- 1) Reintroduce light jumping exercises
- 2) Advance concentric motions
- 3) Avoid pain in all activities

Avoid sport-specific training at this stage

Treatment:

- Eccentric exercise:
 - Around the world eccentric lowering leg raises (4 way), begin without weight; increase weight by 1# per week.
 - Begin eccentric step-downs from 4" step. Advance to 6", then to 8" as symptoms allow
 - Upright squats on decline board (15-25 degrees)
 - 15 reps x 3 sets 1/day
 - Limit squat to 70 degrees
 - Progress from double leg to single leg
 - Advance weight in backpack from 10# - 30# as tolerated
 - Begin double leg jump squats (un-weighted) after patient tolerates eccentric step-downs
 - Advance flexion angle as tolerated up to 70 degrees
- Stretches: Continue as above
- Soft tissue mobilization: PRN
- Core Strengthening exercises (Swiss ball, Pilates, yoga...)
- Modality PRN

Criteria for progression:

- 1) Pain-free upright squats and jumping program

Sport-specific Training (Phase III, weeks 7-12)

Goals:

- 1) Return the patient back to sport

ORTHOPEDIC ASSOCIATES

Treatment:

- Progressive return to jumping/squatting/jump boxes
 - Weighted jump squats on bear squat/total gym
 - Advance from un-weighted to 30# as tolerated
 - Upright squats on decline board with 50#
 - Single-leg jump squats with maximal resistance
- Stretches: Continue as above
- Soft tissue mobilization: PRN
- Core Strengthening exercises (Swiss ball, Pilates, yoga...)
- Modality PRN

Criteria for completion:

- Pain-free sport-specific activities

For any questions or concerns regarding protocols or patient care, please don't hesitate to contact Dorothy Barro at 808-521-8100. For further information, visit our website at www.kylechunmd.com

References:

N Am J Sports Phys Ther. Sep 2010; 5(3): 166–178