



ACL with Patellar Tendon Autograft Reconstruction Protocol

This protocol is a criterion-based protocol, with a goal of maximizing healing and strength recovery, while minimizing risk of re-injury, so the athlete can return, as quickly and safely as possible, to athletic activities at the pace that each individual progresses.

*****This is a summary of a clinical reference protocol, use the link below to view the protocol in its entirety*****

Post-Operative Phase I: Approximately Day 1-7

Goals:

- 0-90 degrees PROM
- Decrease swelling
- Normalize patellar mobility
- Establish quadriceps control
- FWB with ambulation

Brace/Weight Bearing:

- WBAT in full locked extension brace with bilateral crutches

Treatment:

- QS
- 4 way SLR if good quadriceps control
- DF stretching
- A/PROM 0-90degrees by days 5-7
- Wall slides for increased knee flexion
- HS concentric eccentric 90-40
- NMES if contraction deficit present

Criteria for entering Phase II:

- Quad control with QS and SLR
- A/PROM 0-90 degrees
- Good patellar ROM
- Minimal joint effusion
- Independent ambulation

Post-Operative Phase II: Approximately Week 2

Goals:

- 0-120 degrees
- SLR with no extension lag
- Restore proprioception
- Reciprocal stair climbing
- Recumbent bike with no difficulty

Brace/Weight Bearing:

- DC once voluntary quad control is demonstrated **** May be subject to change per MD****

Treatment:

- Progress all exercises from previous phase
- 4 way SLR with 1# increase/week (proximal loading)
- Mini Squats 0-30 degrees DL, add perturbations as tolerated
- Weight shift

- Step ups (painfree range)
- DL press – sub max
- Bike for ROM
- Gentle overpressure into extension if needed
- Patellar mob and Scar mob if limited

Criteria for entering Phase III:

- P/AROM flexion 110 degrees
- Minimal to no effusion
- No joint line or PF pain
- Quad and HS strength 60% of well leg

Post-Operative Phase III: Approximately Week 3-6

Goals:

- 0-125 degrees
- Quad/HS strength to 75% of well leg
- Improve proprioception, balance, neuromuscular control and strength

Brace/Weight Bearing:

- Unlocked or DC once voluntary quad control is demonstrated ** May be subject to change per MD**

Treatment:

- Progress all exercises from previous phase
- Front and lateral step downs
- Perturbation training, DL to SL balance
- Core stabilization
- Bike, walking 10 minutes
- Stair stepper for minimum of 10 minutes to increase endurance
- Gentle overpressure into extension if needed
- Patellar mob and Scar mob if needed

Criteria for entering Phase IV:

- AROM 0-125 degrees
- Quad strength and girth to 75% of well leg, HS strength to 75% of well leg

Post-Operative Phase IV: Approximately Week 6-12

Goals:

- Full ROM
- Quad and Hamstring strength to 80% of well leg
- Normal gait pattern
- Continue to improve strength, balance and proprioception

Treatment:

- Continue and progress all exercises from previous phases
- Perturbation training
- Progress lateral stepping and step-down exercises with resistance bands
- Advance core stabilization exercises

Criteria for entering Phase V:

- Full AROM , no pain or effusion
- Quad and Hamstring strength and girth to 80% of well leg
- Clinical testing please refer to clinical reference protocol

Post-Operative Phase V: Approximately Week 12-16

Goals:

- Normalize and gain strength to greater than 80%
- Increase muscle power, endurance and neuromuscular control
- See clinical reference protocol for specific testing

Treatment:

- Continue and progress all exercises from previous phases
- Advance core exercises
- Agility exercises
- Begin walk-run protocol (see clinical reference protocol)
- Eccentric exercises for all LE muscles
- Begin plyometric training

Criteria for entering Phase VI:

- Full ROM
- See clinical reference protocol for specific testing

Post-Operative Phase VI: Approximately Week 16-24

Goals:

- Maximal strength and endurance
- Progress to skill training
- Gradually return to sport specific training
- Normalize neuromuscular control

Treatment:

- Advance all strengthening, core, neuromuscular exercises
- Progress plyometric and running program
- Begin agility and skill training exercises
 - See clinical reference protocol for specifics

[Link to clinical reference protocol](#)