

ACL Patellar Tendon Autograft Reconstruction Protocol

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General Guidelines

- Focus on protection of the graft during primary revascularization (8 weeks) and graft fixation (6 weeks)
- Weight-bearing as tolerated immediately post op. For ACL reconstructions performed with meniscal repairs ROM and weight-bearing may be limited for 6 weeks.
- Brace use for 6 weeks post op locked in full extension until full extension ROM is achieved and good quadriceps control is obtained.
- Wean from crutches for ambulation between 2 and 4 weeks post op dependent on patient's quadriceps control and ROM.
- Patient may shower on the fourth post op day. Brace is removed for showering.
- Return to work as directed by the physician
- Return to driving between 2 to 4 weeks automatic transmission

Rehabilitation Progression

Phase I: Immediate post op to week 4

Goals:

- Control pain, swelling and inflammation
- Full extension ROM equivalent to uninvolved extremity
- Restore quadriceps control and normal gait
- Minimize the effects of immobilization

Exercises:

- Patellar mobilization
- Heel prop/ prone hangs for extension ROM
- Quad sets, 4 way SLR, hamstring curls, closed kinetic chain squats, wall sits, leg press
- Gastroc-soleus and hamstring stretching
- BFR/E stim to assist with quadriceps activation and quadriceps strengthening
- Proprioception exercises
- Stationary Biking

Phase II: Post op weeks 4 to 10

Goals:

- Restore normal gait
- Maintain full extension and progress towards full flexion
- Increase strength lower extremity and core
- Improve proprioception

Brace discontinuation at post op week 6

Exercises:

- Continue with ROM exercises
- Progress closed chain strengthening from bilateral to single leg activities at increasing squat depths.
- Aerobic conditioning (bike, elliptical, treadmill)
- Proprioceptive drill advancement
- Begin Stairmaster/ Bioclimber activities
- Continue hamstring/ gastroc-soleus stretching

Phase III: Post-operative weeks 10 to 16

Goals:

- Full AROM
- Improve strength, proprioception and endurance of the lower extremity and core to prepare for return to sports/ work
- Protect patellofemoral joint
- Avoid overstressing the graft
- Strength 70 percent of the uninvolved lower extremity per isokinetic testing at 16 weeks post op.

Exercises:

- Continue flexibility and ROM exercises.
- Progress strengthening to power development phase
- Open chain knee extension 90 to 30 progressing towards full extension.
- Running 12 to 16 weeks post op
- Advanced proprioception drills
- Cardiovascular improvement

Phase IV: Post-operative months 4 through 9

Goals:

- Symmetric performance of basic and sport specific drills
- Equal functional testing involved/uninvolved lower extremities
- 85 percent quadriceps and hamstring strength of uninvolved extremity per isokinetic testing

Exercises:

- Continue strength enhancement program
- Plyometric exercises
- Sports specific agility drills
- Running and running progression program dependent on sport/ activity participation of the patient
- Return to sports participation 6 to 12 months post op per functional testing, strength testing and physician release.

Bracing, if used, is per physician preference.