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Post-operative Rehabilitation Protocol

PCL and/or Posterolateral Corner Reconstruction

The PCL reconstruction fixation is not as sturdy as a typical ACL fixation, so prevention of posterior tibia translation through the first eight weeks is paramount.

Goals:

- Full knee ROM—all ROM exercises must be performed in the prone or side lying position for the first month (4-5 weeks)
- 50% WB in brace, must use crutches for first month (4-5 weeks)
- Pain/edema reduction
- Begin and enhance normalization of quad recruitment
- Prevent posterior translation and tibia rotation

1-35 days post op (1 month)

- Modalities as needed
- Brace locked at 0° for the first two weeks at all times except for passive ROM exercises by ATC or PT for first month
- Advance brace from 0-90° after week 2 if tolerated
- Teach partner to perform home stretching exercises 2-3 times/daily
- ROM exercises: In prone position or side lying only, grip the heads of the gastroc/soleus group and maintain anterior pressure proximally to the tibia while flexing the knee
- Advance ROM as tolerated
- Begin patella mobilizations
- Scar management
- Quad sets/SLR in brace at 0° (assist patient with this exercise until solid quad contraction developed, prevent posterior sag) 10x10 3 times daily. May use ankle weights as they will increase anterior translation
- No hamstring isometrics for seven weeks
- Seated calf exercises
- Time modulated AC (also known as Russian stim) in full extension
- Teach quad exercises for home program
- PT visits two times per week for first month

2 weeks post op

- Continue as above
- Stationary bike to increase ROM. Start with high seat and progress to normal height when able, resistance as tolerated.

3 weeks post op

- Continue as above
- Leg extensions
- Leg press with both legs

5 weeks post op

- Continue as above
- May begin aquatic therapy emphasizing normal gait, marching forward/backward
- Begin weaning off crutches, discontinue brace and normalize gait mechanics
- Full WB as tolerated
- ROM—prone flexion 120° or more, and advance to full ASAP
- Treadmill walking—forward and retro
- Closed and open chain tubing exercises
- Single leg stands for balance/proprioception on Airex pad or trampoline
- Unilateral step-ups—start with 2” height and progress to normal step height as able
- Chair/wall squats—keep tibia perpendicular to floor

8 weeks post op

- Continue as above
- All exercises should be on affected leg only at this time
- ROM should be progressing; if not, contact doctor
- Cable column exercises—retro walking, lateral stepping, NO cross over stepping or shuffling
- Standing leg curls with cuff weights or seated leg curls with NK table at 5 pound max
- Advance strengthening for quads as tolerated

10 weeks post op

- Continue as above
- Advance hamstring strengthening into prone position
- Slide board—start with short distance and progress as tolerated
- Stairmaster
- Fitter
- Versa Climber
- Nordic Track and elliptical trainers

12 weeks post op

- Continue as above
- Assessment of jogging on treadmill
- Lateral movement supervised by ATC or PT
 - Stepping, shuffling, hopping, cariocas
- Isokinetic exercises 180, 150, 120, 90, 60°/sec 8-10 reps each speed up and down spectrum

14-16 weeks post op

- Continue as above
- Plyometrics—low intensity vertical and lateral hopping to begin, use both feet and move to one foot ASAP
 - Volume for plyometrics (this is not a conditioning exercise, but a strengthening one) for rehabilitation
 - 40-60 foot contacts/session for beginners
 - 60-80 foot contacts/session for intermediate

- 80-100+ foot contacts/session for advanced
- If plyometric exercise intensity is high, the volume must be decreased. Give ample recovery time between sets.
- 2-3 sessions per week, preferably on weight lifting days
- Initiate sport specific activities under supervision by ATC or PT

16-24 weeks post op

- Continue as above
- Emphasize strength and power development
- Running and sport specific drills under ATC or PT supervision
- Isokinetic test for quad strength difference $\leq 15\%$ and unilateral hamstring/quad strength ratio of 65% or better
- Continue strength testing monthly until patient passes, then perform functional testing
- Functional testing is appropriate for people returning to advanced recreational activities or sports