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Physical Therapy Protocol

ACL Reconstruction with Bone Patellar Bone Autograft

Overall Goals: Return the athlete to sports no sooner than 9 months and to make the athlete a better, safer athlete to prevent future injuries.

Immediate Postoperative: Day 1-7

Goals: Start PT immediately after surgery, unless advised otherwise.

- 1. Protect the graft,
- 2. Reduce pain and swelling
- 3. Maintain passive knee extension throughout entire process
- 4. Start ankle pumps, quadriceps isometrics, quadriceps activation exercises
- 5. Start ROM
- 6. Start patellar mobilizations superior/inferior, medial/lateral
- 7. TENS/NMES
- 8. Ice, Elevation
- 9. WBAT/PWB/NWB dependent on surgery; use knee immobilizer while ambulating.
- 10. Knee immobilizer while sleeping for 1st 6 weeks or until knee extension is maintained.
- 11. Crutches for stability can wean off crutches when stable

Early Postoperative: Week 1-4

Goals:

- 1. WBAT wean off of crutches and knee immobilizer when quadriceps function is strong enough and when patient feels comfortable enough while ambulating
- 2. Continue knee immobilizer at night for 6 weeks total to prevent extension lag
- 3. Maintain knee extension throughout contact surgeon if any knee extension deficits
- 4. ROM knee flexion should be at 90 degrees by 2 weeks postop Contact surgeon if significant deficit in knee flexion.
- 5. Continue quadriceps activation
- 6. Start stationary bike with no resistance as soon as tolerable
- 7. Decrease swelling Ice, elevation, compression wrapping (TED hose stocking should be worn for 2 weeks postop)
- 8. Continue patellar mobilization
- 9. TENS/NMES

Postoperative: Weeks 4-16

Goals:

- 1. Patient should be off all assistive devices while ambulating
- 2. Knee immobilizer at night until week 6 or until they can maintain full knee extension

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- 3. No open chain exercises until month 5 postop
- 4. ROM should be full ROM equivalent to opposite knee by week 4. If not achieved, notify surgeon and see patient more often to push their ROM until full motion is obtained.
- 5. Continue quadriceps strengthening
- 6. Start proprioceptive exercises, core
- 7. Stationary bike increase time and add resistance
- 8. Elliptical can be added when patient tolerates
- 9. Swimming only after incisions are completely healed. Keep knee locked straight while swimming, No treading water and no butterfly kicks (too much rotation on graft).

Postoperative: 4 months to 6 months

Goals:

- 1. Continue to push quadriceps strengthening
- 2. Proprioceptive exercises
- 3. Core
- 4. Hip girdle strengthening
- 5. Start light jogging with treadmill and slight incline Begin at earliest 4 months and when quadriceps girth is 50% of opposite thigh.
- 6. Progress from jog to run when patient tolerates No pivoting
- 7. May begin open chain exercises at month 5.
- 8. Can start light jumping at month 5.

Postoperative: 6 months to 8 months

Goals:

- 1. Start pivoting at 6 months only if quadricep girth is 75% of the opposite thigh
- 2. Continue increased conditioning
- 3. Start single leg jumping as long as their quadriceps girth is improving and patient shows ability to protect graft.
- 4. Continue proprioceptive exercises

Postoperative: 9 months to 12 months:

Goals: Return the athlete to sport

- 1. Main criteria for patient to be cleared for sports will be quadriceps girth 90-100% equal to opposite thigh
- 2. No imbalance on single legged squats on either knee
- 3. Single leg hop progression test patient demonstrating equal on each side.

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