



ACL Reconstruction Rehabilitation Protocol

Chris Schaefer, M.D.

Diagnosis: Right/Left ACL Reconstruction with BTB or Quadriceps Autograft/Allograft, Hamstring Autograft/Allograft

Date of Surgery: _____

Frequency 2-3 times per week.

- No open chain or isokinetic exercises
- Provide patient with home exercise program per protocol

Weeks 1-6 - Period of protection

- Weight bearing as tolerated without assist by post-op day 10.
- **BTB Autograft:** Brace unlocked for ambulation when quad control is adequate. Discontinue brace no sooner than 4 – 6 weeks post-operative at the discretion of the therapist. Brace locked in extension at night until full terminal extension is attained.
- **BTB/Hamstring/Quad Allograft:** Brace unlocked for ambulation when quad control is adequate. Discontinue brace no sooner than 2 – 4 weeks post-operative at the discretion of the therapist. Brace locked in extension at night until full terminal extension is attained.
- **Quadriceps/Hamstring Autograft:** Brace unlocked for ambulation when quad control is adequate. Discontinue brace no sooner than 2 - 4 weeks post-operative at the discretion of the therapist. Brace locked in extension at night until full terminal extension is attained.
- ROM – progress through passive active and resisted ROM as tolerated. Extension board and prone hang with ankle weights (up to 10 lbs) recommended. Stationary bike with no resistance for knee flexion (alter seat height as ROM increases). **ROM Goals – Full extension by 2 weeks, 120 degrees of flexion by 6 weeks.
- Patellar mobilization, 5-10 minutes daily.
- Strengthening – quad sets, SLRs with knee locked in extension. Begin closed chain work (minisquats/weight shifts, leg press 0-90 degree arc) when full weight bearing. Proprioception training. Initiate Step Up program. No restrictions to ankle/hip strengthening.
- Modalities prn (ie electrical stimulation, ultrasound, etc) per discretion of therapist.
- Heat before therapy sessions.
- Ice after therapy sessions.
- May participate in aquatherapy after week three.

Weeks 6-12

- ROM – Continue with daily ROM exercises

****Goal – increase ROM as tolerated to full**

- Strengthening – Increase closed chain activities as tolerated. Progressive squat program. **Monitor for anterior knee pain symptoms and adjust accordingly.** Add lunges, side lunges, and/or slideboard. Initiate Step Down program. Isotonic Knee extension (90 to 40 degrees, closed chain preferred). Versaclimber/Nordic Track, retrograde treadmill ambulation. Add core strengthening exercises. Progress balance/proprioception.
- Continue stationary bike for ROM, strengthening and cardio.
- Continue modalities prn as indicated above.
- Heat before therapy sessions.
- Ice after therapy sessions.

Weeks 12-18

- Advance strengthening as tolerated, continue closed chain exercises. Increase resistance on equipment.
- Begin forward treadmill running program when 8" step down is satisfactory (No sooner than 12 weeks).
- Initiate agility training (figure 8s, cutting drills, quick start/stop, etc.).
- Begin plyometrics and increase as tolerated.
- Begin to wean patient from formal supervised therapy encouraging independence with home exercise program.
- Continue modalities prn as indicated above.
- Heat before therapy sessions.
- Ice after therapy sessions.

Weeks 18+

- Continue strengthening/flexibility
- Initiate sport-specific agility drills and functional testing
- Advanced plyometric program starting at 22 weeks
- Advance agility program at 22 weeks (Z cuts, backward to forward running, footwork drills, double leg power jumps, alternate single leg jump rope)
- Return to sports approximately 22-30 weeks post-operatively **(MD CLEARANCE REQUIRED)**
- Continue modalities prn as indicated above.
- Heat before therapy sessions.
- Ice after therapy sessions.