

ACL Reconstruction Rehab Protocol

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PHASE I: WEEKS 1-3 POST-SURGERY

- Weight Bearing guidelines:
 - ****if suture meniscus repair:** no weight bearing flexion > 90° for the first 4-6 weeks (dependent on type of repair)
 - No passive ROM restriction with meniscus repair
 - Use immobilizer while sleeping until full extension has been reached and can perform strength leg raises
 - Crutches progression
 - FWB in immobilizer using crutches
 - FWB in immobilizer without crutches
 - FWB without immobilizer or crutches
 - Patient may use crutches until they develop strength to keep the knee fully extended while WB
 - Walk with a smooth, even paced heel-toe lift off gait: DO NOT LIMP.
 - Do not walk on toes or with a bent knee. It is important to establish a normal gait early.
- Range of motion:
 - Flexion as tolerated
 - Regain/maintain full knee extension
 - At the end of 3 weeks: ROM goal is 120° - full ROM with full extension
 - May use ice, cryocuff and compression boot during this phase to address soft tissue swelling and effusion.
- Suggested exercises:
 - Patellar mobilization, other methods of ROM to attain full extension and 120° of flexion
 - Stationary bike for ROM
 - Strengthening exercises:
 - Quad sets along with progressive resistance exercises (3 way straight leg raises and prone knee flexion)
- Progression criteria
 - Gain and maintain full extension
 - Minimum flexion to 100°
 - Decrease post-operative swelling
 - Progress toward independent walking
 - Initiate strengthening program

PHASE II: WEEKS 3-6 (STRENGTH)

- Weight bearing:
 - Full WB without crutches, smooth normal gait pattern, no limping (if no meniscus repair)
- ROM:
 - Continue with Phase I exercises as needed.
 - Continue flexion as tolerated and attain/maintain full extension.
- Strengthening exercises (closed chain):
 - May begin functional strengthening, proceed with AROM exercises: 30-40 exercises
- Conditioning:
 - 3 times per week for 20 minutes on an exercise bike (must pedal normally)
- Progression criteria:
 - ROM: full hyperextension and 130° of flexion
 - Confident, smooth gait pattern
 - Begin functional strengthening

PHASE III: WEEKS 6-10 (POWER)

- Weight bearing:
 - Independent with a heel toe gait pattern, equal pattern, equal strides, no limping
- ROM:
 - Full ROM in flexion and extension; continue ROM exercises in Phase I and phase II as needed (these can be discontinued when ROM is equal on both sides)
- Strengthening exercises:
 - Continue previous exercises as needed and add advanced closed chain activities as function dictates
- Conditioning:
 - 3X/week for 20 minutes on an exercise bike-pedaling normal.
 - May initiate elliptical training at 8 weeks if adequate strength is present
- Functional training: (beginning at 10 weeks depending on function)
 - Initiate landing progression:
 - Unsupported landing 2 legs @ 10-12 weeks
 - Unsupported landing 1 leg @ 12-14 weeks
- Progression criteria:
 - Attain full ROM
 - Advance functional strengthening
 - Walk up and down stairs using both legs easily
 - Must be able to land with flexed knees and no valgus deviation at the knee

PHASE IV: WEEKS 10+ (FUNCTION)

- Exercises
 - Exercise daily to maintain ROM and advance strength and function to return to regular activities
 - ROM daily
 - Strengthening 3X/week
- Running week: week 12+ (autograft) week 16+ (allograft or revision)
 - Start basic running program when leg strength, full knee ROM, and no trace swelling are present. Emphasis on gait: normal with full knee extension.
- Functional testing: after 4 months
 - Outcomes testing: single leg hop to determine function. Patient should have completed stage 1 of functional training. Perform between status post weeks 12-15. This must be completed prior to progressing the patient to functional training and sport specific training.
- Functional training: (4-6 months or greater depending on function)
 - Stage 1: start with both feet and progress to involved leg
 - Unsupported linear
 - Unsupported hopping in a box pattern
 - Diagonal hopping
 - Straight line hopping-4 hops forward, then backward
 - Zigzag hopping
 - Stage 2: hopping and running
 - Single leg hop
 - Landings-jump off 2" height forward, backward and to each side-weight evenly distributed
 - Resisted jumping-elastic band at waist-jog backwards, then forwards; progress to forward shuffles, carioca.
 - Stage 3: progress to running agility program (3X/week)
- Progression criteria:
 - Advance agility and power training
 - Achieve normal activities on uneven surfaces