



ACL Reconstruction with Autograft
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	WEIGHT BEARING	ROM	EXERCISES
Phase 1: 0-2 weeks 2-3x/week	WBAT with crutches	AAROM as tolerated Emphasize extension ROM	Ankle pumps, quad sets, Supine TKE's vs. theraband 10°-0°, Ankle 4-way vs. Theraband. Use NMES (Russian, Bi-phasic) as needed to stimulate quadriceps Begin 4-way SLR's when patient can perform without knee extension lag.
Phase 2: 2-8 weeks 2-3x/week	Wean crutches once patient can SLR without extension lag Goal: Symmetric, pain-free FWB gait	AROM and PROM as tolerated. Goal: Symmetric hyperextension	Continue phase 1 exs. Add core strengthening: Planks, bridging progression, etc. Bike, Shuttle/Leg press; step-ups, step-downs, lateral step-ups; Standing TKE's; weight shifting; UE supported SLS balance; OKC and CKC hamstrings; Initiate Double leg Proprioception/balance; BOSU; Advance double and single leg closed chain activity. Target quads and hip external rotators; OKC resisted knee extension 90-60° only; Focus on biomechanical issues of bilateral Lower extremities and functionally strengthen to help prevent contralateral ACL injury. May begin BFR at 2 weeks post op based on MD recommendations and patient past medical history.
Phase 3: 8-12 weeks 2x/week	Full	Goal: Full pain-free ROM	OKC resisted knee extension 90-45° only; Elliptical machine; Resisted walking x 4-way; Advance Double to single leg balance.
Phase 4: 12-16 weeks 1-2x/week	Full	Full	Isometric strength testing (> 75% limb symmetry) in order to: Begin straight-line running and dynamic lateral stability drills; Continue to focus on hip/knee/ankle biomechanics and control; Walking lunges; OKC resisted knee extension 90-30° only Patient should be in an Independent gross strengthening gym/home program 2-3x/week;
Phase 5: 16-24 weeks 1x/week	Full	Full	Begin Plyometrics and power drills Progress cutting and agility drills, initiate at 25-50% speed Functional testing (> 90% limb symmetry) *See website
6- 8 months Post op: Focus is on getting athletes ready to Return to play. If your facility is not equipped for this, please return to MOC 1x/week	Full	Full	Sports-Specific Training. Functional Testing (>95% limb symmetry) *See website Full speed sprinting, cutting without contact **Every month delayed returning to sports between months 6-9 post-op can decrease re-tear risk 50%** Knee brace may be worn for first season back - discuss with MD

Typical graft is Bone-Patellar tendon-Bone in skeletally- mature individuals and quadriceps tendon in youth.
 Contact MD by 4 weeks post op if patient is not able to achieve full extension.
 MD post op appts: 2 weeks, 6 weeks, 12 weeks, 5 months. Please send PT progress notes prior to each of these
 This protocol is not a substitute for clinical decision making of the health care professional.
 Please see PT referral for any specific post op instructions.
 Graft augmentation (internal brace) does not accelerate recovery, it just offers added strength to the ligament.
 **ACL strain is generally greater with non—weight-bearing exercises compared to weight-bearing exercises
 **ACL is loaded to a greater extent between 10° to 30° of knee flexion angles