



## ACL Allograft Reconstruction

### PHASE I: Immediate Post-Operative Phase (0–2 Weeks)

- Protect graft and surgical fixation.
- Control pain and swelling.
- Achieve full knee extension and flexion 0–90°.
- Brace locked in extension for ambulation.
- Weight bearing as tolerated with crutches unless otherwise restricted.
- Avoid open-chain resisted knee extension.
- Cryotherapy, compression, and elevation.
- Patellar mobilizations.
- Quadriceps sets and straight leg raises (brace locked).
- Heel slides and ankle pumps.

### PHASE II: Early Strength & ROM (2–6 Weeks)

- ROM goal: 0–120° by week 6.
- Normalize gait pattern with brace.
- Continue brace until adequate quadriceps control and normal gait.
- Avoid resisted knee extension from 40–0°.
- Stationary bike once  $\geq 100^\circ$  knee flexion achieved.
- Mini-squats (0–45°) and leg press (0–60°).
- Step-ups and bridges.
- Hip and core strengthening.
- Balance and proprioception training.

### PHASE III: Strengthening & Neuromuscular Control (6–12 Weeks)

- Achieve full knee ROM.
- Improve strength, endurance, and neuromuscular control.
- Avoid impact activities.
- Progress strengthening carefully to avoid patellofemoral overload.
- Squats to approximately 70–80°.
- Step-downs and lunges.



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- Single-leg strengthening.
- Balance and proprioceptive exercises.

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- Low-impact cardiovascular training.

### PHASE IV: Strength & Controlled Plyometrics (3–6 Months)

- Achieve  $\geq 80\%$  limb strength symmetry.
- Prepare for running progression.
- Improve agility, dynamic control, and power.
- Running commonly delayed until approximately 5–6 months.
- Avoid pivoting or cutting until cleared.
- Single-leg squats and lunges.
- Lateral drills and agility ladder work.
- Light plyometrics including double-leg hops or jump rope.
- Core and rotational strength training.
- Initiate jogging progression once cleared.

### PHASE V: Advanced Strength & Controlled Plyometrics (6–9

#### Months)

- Progress strength toward  $\geq 90\%$  symmetry.
- Advance plyometric progression from double-leg to single-leg.
- Improve landing mechanics and shock absorption.
- Introduce controlled agility and change of direction.
- Continue running progression with increased intensity.
- Maintain focus on neuromuscular control and symmetry.

### PHASE VI: Return-to-Sport Training (9–12 Months)



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## **ACL Allograft Reconstruction**

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- Achieve  $\geq 90\%$  strength and power symmetry.
- Develop safe landing, cutting, and pivoting mechanics.
- Prepare for sport-specific performance.
- Return to sport only when objective criteria are met.
- Clearance from surgeon and PT required prior to returning to sport
- Allograft reconstructions often delay full return until approximately 9–12 months.
- Advanced plyometrics including single-leg hops and bounding.
- Cutting and pivoting drills.

### **ACL Allograft Reconstruction**

- Sport-specific training progression.
- Ongoing strengthening and conditioning.

### **RETURN TO SPORT CRITERIA**

- Full knee ROM with no effusion or pain.
- Quadriceps and hamstring strength  $\geq 90\%$  compared to uninvolved limb.
- Functional hop testing  $\geq 90\%$  symmetry.
- Clearance from surgeon and physical therapist.