

Rehabilitation Protocol: Anterior Cruciate Ligament (ACL) Reconstruction

Phase 1 (Weeks 0-4)

- **Weightbearing:** As tolerated with crutches (may be modified if concomitant meniscal repair or articular cartilage procedure is performed)
- **Hinged Knee Brace:**
 - Locked in full extension for ambulation and sleeping (**Weeks 0-1**)
 - Unlocked for ambulation and removed while sleeping (**Weeks 1-4**)
- **Range of Motion:** AAROM → AROM as tolerated
- **Therapeutic Exercises**
 - Quad/Hamstring sets and heel slides
 - Non-weightbearing stretch of the Gastroc/Soleus
 - Straight-Leg Raise with brace in full extension until quad strength improves and extension lag is eliminated
 - **If hamstring autograft harvest was performed, avoid hamstring stretching until 4 weeks post-op**

Phase 2 (Weeks 4-6)

- **Weightbearing:** As tolerated – discontinue crutch use
- **Hinged Knee Brace:** Discontinue brace use when patient has achieved full extension with no evidence of extension lag
- **Range of Motion:** Maintain full knee extension – work on progressive knee flexion
- **Therapeutic Exercises**
 - Okay to begin blood flow restriction therapy
 - Closed chain extension exercises, Hamstring stretching, Toe raises, Balance exercises
 - Progress to weightbearing stretch of gastrocnemius/soleus
 - Begin use of stationary bicycle

Phase 3 (Weeks 6-16)

- **Weightbearing:** Full weightbearing
- **Brace:** None
- **Range of Motion:** Full/Painless ROM
- **Therapeutic Exercises**
 - Begin hamstring strengthening
 - Advance closed chain strengthening exercises, proprioception activities
 - Begin use of Stairmaster/Elliptical
 - **Can start straight ahead running at 12 weeks**

Phase 4 (Months 4-6)

- Continue with strengthening (quad/hamstring) and flexibility
- Begin cutting exercises and sport-specific drills
- Maintenance program for strength and endurance
- **Return to sports at 6 months**