

**ACL Reconstruction: Autograft + Longitudinal Meniscus Repair**  
Rehab Protocol

	Weight Bearing	ROM	Brace	Therapeutic Elements
<b>Phase I</b>				
0-2wk	WBAT w/ Crutches	<b>*FULL extension!</b> Flexion 0-60, don't force	Locked in full extension for ambulation and sleep	Modalities as needed. Heel slides, quad and hamstring sets, patella mobilization, Prone hangs & extension board. Start BFR. SLR with brace locked in extension until no extension lag, then unlock brace for SLR.  <b>**LIMIT WEIGHT BEARING EXERCISE TO FLEXION ANGLES LESS THAN 90°**</b> Weight bearing gastroc / soleus stretches, begin toe raises, closed chain extension, balancing exercises, hamstring curls. Continue BFR.
2-4wk	WBAT w/ Crutches	Progress flexion as tolerated	Same	
4-6wk	Begin weaning crutches: start w/1 crutch, when brace able to be unlocked. D/C crutches when >= 0° knee extension & 90° knee flexion, can easily perform repetitive SLR without lag, minimal effusion, and can ambulate without a limp	Continue flexion and <b>MAINTAIN FULL EXTENSION !</b>	<b>Week 4:</b> Progressively open to 90 for ambulation when ROM 90 flexion and easily performs repetitive SLR without lag-locked in extension for sleep	
<b>Phase II</b>	<b>FWB</b>	<b>Full ROM</b>	Discontinue when walking with no limp and appropriate quad control	<b>**NO LOADED FLEXION PAST 90°**</b> Stationary Bike, Wall sits, Lunges, balancing exercises Closed chain strengthening: Leg press, step ups, step downs, RDLs, lunges, Bulgarian squats, wall sits Advance hip abduction & glut strength: band walks, lateral lunge, reverse lunge. Proprioceptive training. Stationary bicycle and elliptical for fitness. Core Strength
<b>Phase III</b>	<b>FWB</b>	<b>FULL</b>	None	Continue strengthening, <b>can begin loading beyond 90 degrees of flexion</b> Can begin underwater treadmill if available, focus on form  Can begin straight ahead running progression <u>when meets criteria on page 2*</u>
<b>Phase IV</b>	<b>FWB</b>	<b>FULL</b>	Fitting for custom ACL brace	Increase flexibility, forward backwards running  <u>**Can begin Agility when meets criteria on page 2**</u>  Sports specific training, cutting, Sportsmetrics (plyometrics) jump and landing advanced strengthening program in brace. NO single leg Plyo's until at least POW 20
<b>Phase V</b>	<b>FWB</b>	<b>FULL</b>	Custom ACL brace	Continue agility & sport specific training Progress Strength Training  Objective (LEAP) testing done around 6-7 months for baseline and retest monthly to determine readiness. To Pass need >or=95%. Anticipated full return to sport 7-9 months. <u>Begin return to sport progression outlined on page 2 after passing LEAP TEST</u>

**\*CRITERIA TO BEGIN STRAIGHT LINE JOGGING AT 12 WEEKS:**

- PAIN LESS THAN 3 / 10 (WORST)
- WITHIN 2° NORMAL KNEE EXTENSION & 120° KNEE FLEXION
- QUADRICEPS & HAMSTRING STRENGTH > 60% NORMAL
- LESS THAN 4cm DEFICIT ON SINGLE-LEG SQUAT (ANTERIOR REACH)
- AT LEAST 1 MINUTE OF SINGLE LEG SQUATS
- DOCTOR APPROVAL

**Jogging Progression:**

- Running prep exercises: focus on the deceleration phase such as DL speed squats, DL drop squats, DL “bounce bounce bounce squat”, then progress to alternating SL drop squats.
- Initiate jogging and progress to in-line running: Begin on treadmill with 2- 3 days per week. Begin with 1:1 or 2:1 walk to jog ratios, (ie. 1 min walk to 1 min jog or 2 min walk to 1 min jog). Then progress each week by 1 min jog until 12-15 min of jogging is achieved.

**\*CRITERIA TO BEGIN AGILITY WORK IN PHASE IV:**

- PAIN LESS THAN 2 / 10 (WORST)
- QUAD & HAM STRENGTH > 80% NORMAL; > 50% H/Q RATIO FOR FEMALES
- AT LEAST 3 MINUTES OF SINGLE LEG SQUATS
- JOGGING >15 MINUTES ON TREADMILL
- DOCTOR APPROVAL

**Agility:** (NO single leg Plyo's until at least POW 20)

- Ladder drills, footwork agility drills, cone drills
- Double leg plyos: jump rope, line jumps, cone jumps, depth jumps, box jumps
- High intensity predictable patterned movements, incorporate sport specific drills

**\*\*CRITERIA TO RETURN TO PLAY AFTER PHASE V:**

- PAIN LESS THAN 2 / 10 (WORST)
- QUAD & HAM STRENGTH > 90% NORMAL; > 60% H/Q RATIO FOR FEMALES
- 95% ON LEAP TESTING
- DOCTOR APPROVAL
- After above clearance, the Return to play progression is as follows:
  - 1) Return to non-contact practice/individual drills
  - 2) Return to contact practice
  - 3) Return to scrimmage
  - 4) Return to interval play
  - 5) Return to full play