

Rehabilitations/p ACL Reconstruction

Saint Louis UniversitySSM Health Physical Therapy Orthopedic Residency
in Collaboration withSLUCare Physicians

These guidelines, treatments, and milestones have been established to assist in guiding rehabilitation based on the most current available evidence. They are not intended to be substitute for sound clinical judgement with consideration of the individual contextual features of the patient and the demands of various functions/sports.

Pre-operative goals: Full knee extension range of motion (ROM), absent or minimal joint swelling, no knee extension lag with straight leg raise (SLR), educate the patient on what to expect following surgery, and protect the joint.

Timeline	Milestones	Treatment Recommendations
<u>Week 1</u> (Day 07)		

Rehabilitation s/p ACL Reconstruction

x

Rehabilitation s/p ACL Reconstruction

Rehabilitation s/p ACL Reconstruction

x 5xSTS Normative Values

Errors (Impairments) seen in Single Leg Squat Movement <small>adapted from (Liebenson 2002) (Bailey et al 2010)</small>		
Midfoot collapse	Early heel rise	Poor control of knee with ascent
Femoral adduction, IR	Pelvic drop	Excessive trunk flexion or knee extension on ascent

Running Program

Level	Treadmill	Track
1	0.1-mile walk/0.1-mile jog, repeat 10 times	Jog straights/walk curves (2 miles)
2	Alternate 0.1mile walk/0.2mile jog (2 miles)	Jog straights/jog 1 curve every other lap (2 miles)
3	Alternate 0.1mi walk/0.3mi jog (2 miles)	Jog straights/jog 1 curve every lap (2 miles)
4	Alternate 0.1mi walk/0.4mi jog (2 miles)	Jog 1.75 laps/walk curve (2 miles)
5	Jog full 2 miles	Jog all laps (2 miles)
6	Increase workout to 20.7 (2 m) f 282.6 (2 m) m7-0 (

Rehabilitation s/p ACL Reconstruction

1. Adams D, Logerstedt DS, Hunt Jordan A, Axe MJ, Snyder Mackler L. Current concepts for anterior cruciate ligament reconstruction: a criterion-based rehabilitation progression. *J Orthop Sports Phys Ther.* 2012;42(7):401-411.
2. Arms SW, Pope MH, Johnson RJ, Fischer RA, Arvidsson I, Eriksson E. The biomechanics of anterior cruciate ligament rehabilitation and reconstruction. *Am J Sports Med.* 1984;12(1):8-18.
3. Bailey R, Selfe J, Richards J. The single leg squat test in the assessment of musculoskeletal function: a review. *Physiother Ireland.* 2010;13(1):1-8.
4. Barber FA, Click SD. Meniscus repair rehabilitation with concurrent anterior cruciate reconstruction. *Arthroscopy.* 1997;13(4):433-437.
5. Beynnon BD, Johnson RJ, Fleming BC, Stankewich CJ, Renström PA, Nichols CE. The strain behavior of the anterior cruciate ligament during squatting and active flexion extension. A comparison of an open and a closed kinetic chain exercise. *Am J Sports Med.* 1997;25(6):823-831.
6. Bohannon RW. Knee extension strength and body weight determine sit-to-stand independence after stroke. *Physiotherapy theory and practice.* 2007; 23(5):291-297.
7. Bohannon RW, Bubela DJ, Magasi SR, Wang YC, Gershon RC. Sit-to-stand test: Performance and determinants across the agespan. *Isokinetics and exercise science.* 2010; 18(4):235-240.
8. Chen FS, Rokito AS, Parnianpour M. Acute and chronic posterolateral rotatory instability of the knee. *J Am Acad Orthop Surg.* 2000; 8:97-104.
9. Chester R, Smith TO, Sweeting D, Dixon J, Wood S, Song F. The relative timing of VMO and VL in the aetiology of anterior knee pain: a systematic review and meta-analysis. *BMC Musculoskelet Disord.* 2008;9:64.
10. Fees M, Decker T, Snyder

2

2