

Aspect of Rehab	Treatment Goal	Intervention
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Presurgical Rehabilitation

Education	Patient understands goals of PT And home exercise program	Team approach with patient, surgeon, physical therapist, trainer, family, coaches, etc.
Knee Extension	Regain full extension	Prone hangs up to 30 minutes/day, heel props
Knee Flexion	120 degrees or more	Heel slides, prone flexion stretching
Swelling	Minimal to none prior to surgery	Ice, Compression sleeve, ACE wrap
Gait/Brace	Full weight bearing Brace 0 to 120 degrees	Work on normal gait pattern/minimize limping/avoid deep squatting

Early Postoperative Phase (week 0 to 6)

Knee Extension	Full extension as soon as possible (ideally by 10 days)	Prone hangs, sleep with brace locked in extension avoid limping, place cushion under heel when sitting
Quad Function	Maintain quad contraction	Quad sets, straight leg raises in brace, E stim at PT
Knee Flexion	90° week 1, 120° by week 4	Heel slides, stretching, stationary bike at 2-4 wks
Patella mobility	Active superior glide with quad set	Self mobilization of patella, PT education
Swelling	Minimal swelling/dry wound	Ice/Polar Care, Compression sleeve, elevation
Brace usage	Brace locked at 0° for 2 weeks Unlock to 90° at 2 weeks unless Meniscal repair	May be out of brace for PT or stretching Keep locked at 0 for 6 weeks for meniscal repair
Weight Bearing	Full weight bearing with brace locked Crutches until minimal pain and swelling	Walk with a normal gait as soon as possible

Strengthening Phase (Week 6 to 12)

Strengthening	Increase function and strength	Mini squats, leg press, wall sits, hip exercises
Endurance/Core	Increase cardiovascular activity and core strength	Early: walking, low resistance biking, rowing, swimming. Advanced: Elliptical, step downs, core exercises
Balance	Improve proprioception/regain balance	Single leg stance, Theraband kicks, Bosu ball

Return to Activity/Sports (Months 3-6+)

Early (Week 12-16)	Focus on low impact activity that encourages double limb support; Step ups on 6 inch step, jump rope, mini-trampoline. Continue core and hip strengthening
Middle (Week 16+)	Work toward return to running criteria (walk 2 miles in 30 min, 20 single leg squats without collapse or pain). No pain or swelling Begin with walk/jog intervals on track or treadmill. If no pain the following day, may increase speed/distance.
Late (Week 20+)	Introduce cutting/pivoting drills(if pain free) with straight running; add ladder drills, plyometrics, sport drills as tolerated
Return to sport (individualized)	Must have near normal thigh diameter, minimal to no swelling/pain, normal gait, no instability Must pass single leg hop test at a minimum; possibly triple hop and single leg vertical hop test Many athletes will use a custom ACL brace for 1-2 seasons after surgery Minimal time to return to sports is 6 months; average is 8-12 months depending on sport and athlete. Meniscal repairs usually longer to recover than isolated ACLs Appropriate expectations are important for the patient and family.
Injury Prevention	It is important to maintain strength and flexibility in BOTH knees and hips Core strengthening is crucial Note that most re-tears of ACL graft occur in the first year after surgery ACL Prevention Programs (PEP, Sportsmetrics) have been proven to help prevent ACL tears
Exceptions	Meniscal repairs wear the brace locked at 0 degrees for ambulation for 6 weeks. Avoid squatting past 90° for 12 weeks post op Microfracture or OATS procedures remain non-weightbearing for 6 weeks