

**ACL AND PCL +/- MEDIAL/LATERAL RECONSTRUCTION
PT PROTOCOL**

	BRACE INSTRUCTIONS AND RESTRICTIONS	RANGE OF MOTION GOALS	PT EXERCISES/NOTES
PHASE 1 First 2 Weeks (0-2) 1-2 Sessions/week Begin after 5-7 days	-Hinge Knee brace x 6 weeks (may remove for shower/hygiene) -Brace locked in extension with ambulation and sleeping at 0 degrees -Crutches for assisted ambulation -Touch down weight bearing -AVOID heel slides and hamstring sets	-Begin PROM as tolerated (Minimum goal of 90 deg knee flexion by 2 weeks) -Avoid hyperextension -All ROM exercises performed in prone position x 6 weeks	-Begin patellar mobilization, pain/edema control, passive/active ROM exercises -Strengthening to include ankle pumps, quad sets/straight leg raise (brace locked at 0) -Side lying hip/core strengthening -Consider NMES as needed
PHASE 2 Next 4 Weeks (2-6) 1-2 Sessions/week	-Hinge Knee brace x 6 weeks (may remove for shower/hygiene) -Brace locked in extension with ambulation and sleeping at 0 degrees -Crutches for assisted ambulation -Touch down weight bearing -AVOID heel slides and hamstring sets	-Continue to advance PROM/AAROM/AROM to reach full ROM in prone position x 6 weeks	-Continue phase 1 exercises and add knee extension stretches, heel raises -Side lying hip/core strengthening -Consider NMES and add Blood Flow Restriction as needed -Closed chain strengthening to begin 0 to 45 degrees -Gentle sit and reach hamstrings (without hyperextension)

<p>PHASE 3 Next 4 Weeks (6-10) 2 Sessions/week</p>	<ul style="list-style-type: none"> -Advance to full weight bearing as tolerated -Unlock brace with ambulation at 7 weeks -Discontinue crutches as able at 7 to 8 weeks -Discontinue brace at 8 weeks -Progress to PCL brace at 8 weeks -AVOID heel slides and hamstring sets 	<ul style="list-style-type: none"> -Continue to advance PROM/AAROM/AROM to reach full ROM 	<ul style="list-style-type: none"> -Continue phase 2 exercises and add closed chain exercises, lunges, seated leg press 0 to 90 degrees, proprioception exercises, balance/core/hip/glutes, -Daily stretching including prone quadriceps, hamstrings, and calf -Stationary bike to increase ROM at 8 weeks
<p>PHASE 4 Next 6 Weeks (10-16) 1-2 Sessions/week</p>	<ul style="list-style-type: none"> -Continue PCL brace 	<ul style="list-style-type: none"> -Continue to advance PROM/AAROM/AROM to reach full ROM 	<ul style="list-style-type: none"> -Continue phase 3 exercises and add double knee bends, double leg bridges, reverse lunge, leg press 0 to 90 degrees, mini squats 0 to 45 degrees -Add step-up/step-down, single leg wall slides, single leg squat to chair at 12 weeks -Progress proprioceptive activities -ACL TRAC testing at 3 to 4 months

<p>PHASE 5 16 Weeks+ Sessions weekly frequency to be determined</p>	<p>-Discontinue full time PCL brace at 6 months; Continue PCL brace with sports-related activity until 12 months</p>		<p>-Continue phase 4 exercises -Begin walk-run program at 20 weeks -May begin plyometric exercises at 24 weeks (low intensity vertical and lateral hopping to begin – initially both feet, progress to one foot; advance volume as tolerated) -Consider ACE STRENGTH after 5 months -Lateral movements including step, shuffle hopping, cariocas, sprinting, backward running, zig-zag running, figure-of-eight running, carioca running, shuttle run and sport specific drills provided 70% strength on Limb Symmetry Index at 8 months -Consider ACE SPORT at 8 months for return to sport focus -At 7 months and later at 10 months (or after ACE SPORT) complete ACL functional test -Return to sport after 10+ months per protocol and once clear by MD</p>
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FUNCTIONAL TEST/RETURN TO SPORT CLEARANCE CRITERIA:

- > 90% isometric quadricep strength
- > 90% comparable hop testing to contralateral side (single-leg, triple, cross-over, 6 meter timed hop test)
- > 90% quad index LSI with Biodex or HHD
 - > 90% quad peak torque/weight on Biodex (if applicable)
- Good form on vertical jump, deceleration shuttle test, Y-balance test
- No functional complaints, effusion, ROM restriction
- Good confidence with sport specific agility drills, running, and jumping
- Acceptable ACL-RSI score

This protocol is intended for the purposes of guiding post-surgical or post-injury rehabilitation exercises and goals. These guidelines may be interpreted by a certified physical or occupation therapist and tailored to meet patient specific goals and expectations. Other specific modifications may be made by Dr. Butterfield depending on adjuvant surgical procedures, surgical findings, or rehabilitation progress.

Please fax initial physical therapy assessment and progress notes to Dr. Butterfield at 763-786-3320. You may direct questions regarding this protocol or patient progress to our office at 763-786-9543 or email at MatthewButterfield@tcomn.com