

# ACL Reconstruction with BTB Patellar Autograft

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The surgeon must specify on the referral any specific requests or deviations that fall outside the scope of this protocol, including if *deceleration* of these time frames is desired.

Phase I (Weeks 0 – 2)	Phase II (Weeks 2 – 6)	Phase III (Weeks 6 – 12)	Phase IV (Weeks 12 – 24+)
<p><b>PRECAUTIONS</b></p> <ul style="list-style-type: none"> <li>No pool activity</li> </ul> <p><b>CLINICAL CARE</b></p> <ul style="list-style-type: none"> <li>Swelling/Wound Management</li> <li>Patellar mobs</li> <li>NMES</li> <li>ROM as tolerated</li> <li>Gait Training</li> </ul> <p><b>EXERCISES</b></p> <ul style="list-style-type: none"> <li>AAROM knee flexion with over-pressure</li> <li>Stationary biking, no resistance</li> <li>Passive extension stretching</li> <li>Patellar mobs</li> <li>Ankle pumps</li> <li>Quad sets</li> <li>Multiplanar SLR</li> <li>Calf raises</li> <li>Mini squats with band (0-60)</li> <li>Hamstring bridge</li> <li>NMES is strongly recommended</li> </ul> <p><b>CRITERIA</b> to advance....</p> <ul style="list-style-type: none"> <li>Wean from brace after: <ul style="list-style-type: none"> <li>SLR x 10 without lag</li> <li>Single leg stance w/ UE support</li> </ul> </li> <li>Wean from crutches by POD 14</li> <li>ROM <ul style="list-style-type: none"> <li>Extension: 0°</li> <li>Flexion: 90°</li> </ul> </li> </ul>	<p><b>PRECAUTIONS</b></p> <ul style="list-style-type: none"> <li>No running or cutting activities</li> <li>WBAT crutches until sufficient quad control</li> <li>CKC (0-60°) for strength training</li> <li>OKC (90-45°) Strengthening</li> </ul> <p><b>CLINICAL CARE</b></p> <ul style="list-style-type: none"> <li>Swelling Management</li> <li>Patellar mobs</li> <li>NMES</li> <li>Manual knee flexion/extension stretching</li> <li>Light scar mobilization when wound closed</li> <li>Blood Flow Restriction Training</li> <li>Pool therapy when OK'ed by MD</li> </ul> <p><b>EXERCISES</b></p> <ul style="list-style-type: none"> <li>Leg press (double/single)</li> <li>Forward and Lateral Step ups</li> <li>Knee extension (90-45°) starting at week 4 <ul style="list-style-type: none"> <li>Can progress 10 degrees per week</li> </ul> </li> <li>CKC hip strengthening</li> <li>Progress proprioceptive activities</li> <li>Concentric and eccentric quad strengthening</li> <li>NMES as needed</li> </ul> <p><b>CRITERIA</b> to advance....</p> <ul style="list-style-type: none"> <li>Normal gait mechanics</li> <li>Single leg stance control w/o UE support</li> <li>Effusion managed</li> <li>ROM <ul style="list-style-type: none"> <li>Flexion: &gt;120°</li> </ul> </li> </ul>	<p><b>PRECAUTIONS</b></p> <ul style="list-style-type: none"> <li>Watch for patellofemoral pain</li> </ul> <p><b>CLINICAL CARE</b></p> <ul style="list-style-type: none"> <li>Blood Flow Restriction Training</li> <li>Manual Therapy PRN</li> <li>Eccentric Training (CKC)</li> </ul> <p><b>EXERCISES</b></p> <ul style="list-style-type: none"> <li>Advance CKC strengthening single leg without dynamic valgus</li> <li>Step downs</li> <li>Lunges</li> <li>Full OKC at 8 weeks</li> <li>High level strengthening: single leg on unstable surfaces without dynamic valgus</li> <li>High level hamstring loading</li> </ul> <p><b>CRITERIA</b> to advance....</p> <ul style="list-style-type: none"> <li>Negotiate stairs normally</li> <li>Restore limb confidence</li> <li>ROM <ul style="list-style-type: none"> <li>Full extension</li> <li>Flexion within 10° of uninjured side</li> </ul> </li> </ul>	<p><b>PRECAUTIONS</b></p> <ul style="list-style-type: none"> <li>No jumping, cutting, or sprinting until cleared</li> </ul> <p><b>CLINICAL CARE</b></p> <ul style="list-style-type: none"> <li>Blood Flow Restriction Training for atrophy if needed</li> </ul> <p><b>EXERCISES</b> <b>12-16 weeks</b></p> <ul style="list-style-type: none"> <li>Running: initiate walk-jog program</li> <li>Jumping: double progress to single leg</li> <li>High level strengthening: single leg on unstable surfaces without dynamic valgus</li> </ul> <p><b>16+ weeks</b></p> <ul style="list-style-type: none"> <li>Agility drills/plyometrics without dynamic valgus</li> <li>Jumping: double progress to single leg</li> <li>Running to straight line sprinting progression</li> <li>High Resistance: LE strengthening OKC/CKC full ROM as tolerated</li> </ul> <p><b>24+ weeks</b></p> <ul style="list-style-type: none"> <li>Cutting/sport specific activities if cleared</li> </ul> <p><b>CRITERIA</b> to advance....</p> <ul style="list-style-type: none"> <li>Return to sport or heavy work cleared by MD</li> <li>&gt;90% of limb symmetry on Functional Testing</li> <li>Within 1 cm quad girth difference side to side</li> </ul>

Questions and updates regarding the progress of any specific patient are encouraged and should be directed to Dr. Cooper at 952-456-7617.