

## Multi-ligament Repair ACL/MCL/PCL/LCL/PLC combinations

Individual patient circumstances may affect the guideline  
(tear configuration, fixation used, associated procedures, etc.)

Phase	Goals	Precautions/Restrictions	Treatment
<b>Weeks 0-2</b>	<ul style="list-style-type: none"> <li>• Protect surgical site</li> <li>• Reduce muscle atrophy</li> <li>• Reduce swelling</li> <li>• Decrease pain and inflammation</li> <li>• Initiate knee extension</li> </ul>	<ul style="list-style-type: none"> <li>• Brace locked in extension</li> <li>• NWB with crutches</li> <li>• Avoid hyperextension</li> <li>• Knee flexion 0- 30°               <ul style="list-style-type: none"> <li>• No hamstring AROM or stretching</li> </ul> </li> <li>• No extension open chain or isolated hamstring exercises</li> </ul> <p><i>**Defer to operative note for surgeon specific WB instructions with meniscal injuries**</i></p>	<ul style="list-style-type: none"> <li>• ROM               <ul style="list-style-type: none"> <li>○ Extension focus                   <ul style="list-style-type: none"> <li>• Gradual progression with PLC repair</li> </ul> </li> </ul> </li> <li>• Quadriceps recruitment/NMES</li> <li>• Gait training with crutches</li> <li>• Initiate BFR; if applicable</li> </ul>
<b>Weeks 2-6</b>	<ul style="list-style-type: none"> <li>• Reduce swelling and pain</li> <li>• Restore patellar mobility</li> <li>• Full passive knee extension rom</li> <li>• SLR without lag</li> <li>• Restore quadriceps control</li> <li>• Normalized gait</li> </ul> <p style="color: red; font-weight: bold;">Please contact surgical team if full knee extension and unassisted straight leg raise without extension lag not achieved by week 6.</p>	<ul style="list-style-type: none"> <li>• NWB on crutches</li> <li>• Wean from brace with excellent quad control</li> <li>• Knee flexion PROM               <ul style="list-style-type: none"> <li>○ Week 3 0-60°</li> <li>○ Week 4 0-90°</li> <li>○ Week 6 as tolerated</li> </ul> </li> <li>• Avoid varus/valgus moves</li> </ul>	<ul style="list-style-type: none"> <li>• ROM               <ul style="list-style-type: none"> <li>○ Can progress into hyperextension if available</li> <li>○ Flexion can be accelerated if MCL repair is not proximal or midsubstance</li> </ul> </li> <li>• Multi-angle isometrics for quad control               <ul style="list-style-type: none"> <li>○ Continue with NMES if needed</li> </ul> </li> <li>• Gait training progression for assistive device</li> <li>• Initiate hamstring AROM after 4 weeks</li> <li>• Core stabilization exercises</li> </ul>
<b>Weeks 6-12</b>	<ul style="list-style-type: none"> <li>• Full, symmetric and pain free ROM</li> <li>• Progress quadriceps strength/endurance</li> <li>• Progress functional activities</li> <li>• Discontinue brace with normalized gait mechanics</li> </ul>	<ul style="list-style-type: none"> <li>• Progress to full WB by 8 weeks</li> <li>• Knee flexion ROM as tolerated</li> <li>• Initiate open kinetic chain exercise               <ul style="list-style-type: none"> <li>○ 90-0° at 6 weeks (BW only)</li> <li>○ 90-0° with progressive loading at 10 weeks</li> </ul> </li> <li>• No running, jumping, cutting, pivoting or twisting</li> </ul>	<ul style="list-style-type: none"> <li>• Progressive double and single limb strengthening</li> <li>• Can begin isolated isotonic hamstring exercises at 8 weeks</li> <li>• Full knee flexion PROM by 12 weeks</li> <li>• Aerobic training on stationary bike, elliptical, stair climber, UBE</li> </ul>
<b>Weeks 12-16</b>	<ul style="list-style-type: none"> <li>• Full, symmetric ROM</li> <li>• Progressive resistance training</li> <li>• Pass Return to Run criteria (See Appendix)</li> <li>• No effusion with increased activity</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid painful activities/exercises</li> <li>• No jogging on painful or swollen knee</li> </ul>	<ul style="list-style-type: none"> <li>• Progress hypertrophy and strength training</li> <li>• Continue balance/proprioceptive training</li> <li>• Perform Return to Run testing (Between 12-16 weeks)</li> <li>• Initiate running program; if applicable</li> </ul>
<b>Months 4-6</b>	<ul style="list-style-type: none"> <li>• Full, symmetric ROM</li> <li>• Progress sport specific training</li> <li>• Successful progression of return to run program</li> <li>• Initiate plyometric and agility training</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid painful activities/exercises</li> <li>• No jogging on a painful/swollen knee</li> <li>• No participation in sports</li> </ul>	<ul style="list-style-type: none"> <li>• Progression of return to jogging program</li> <li>• Continue progressive resistive exercise (PRE)</li> <li>• Increase intensity of plyometric and agility training</li> </ul>
<b>Months 6-12</b>	<ul style="list-style-type: none"> <li>• Continue to progress functional strengthening</li> <li>• Sport-specific training</li> <li>• Pass Return to Sport criteria</li> </ul>	<ul style="list-style-type: none"> <li>• No participation in sports unless specified by care team</li> <li>• Avoid painful activities</li> </ul>	<ul style="list-style-type: none"> <li>• Initiate ARC</li> <li>• Continue PRE with strength, power, velocity focus</li> <li>• Begin sport-specific training</li> <li>• Gradual RTS progression if criteria passed</li> </ul>

This guideline is not meant to be prescriptive but a recommendation to the rehabilitation process. Progress may vary based on specifics of injury and procedure.