

## MENISECTOMY AND DEBRIDEMENT POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
<b>MAXIMUM PROTECTION</b>	0 to 1	<p><b>CRUTCHES:</b> 50% partial weight bearing x 1 week</p> <p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Gait training</li> <li>• Extension - heel props for full extension as needed</li> <li>• Flexion - off table or wall slides</li> <li>• Quadriceps setting using NMES as needed</li> <li>• Multi-plane straight leg raises</li> <li>• Bilateral calf raises</li> <li>• Ankle pumps</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>• Stationary biking</li> </ul> <p><b>RECOMMENDED LOAD</b></p> <ul style="list-style-type: none"> <li>• Short but frequent bouts of ROM, quad activation 3+x/day</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Normalize patella mobility</li> <li>• full extension; passive/active</li> <li>• Good quadriceps control</li> <li>• No extension lag</li> <li>• 100°-120° of knee flexion</li> </ul>
	1 to 2	<p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Continue with 0-1 week program</li> <li>• Extension – heel props or add prone hangs (as needed)</li> <li>• Flexion – wall or heel slides</li> <li>• Ball bridge and/or isometric hamstring activation</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>• Stationary biking</li> <li>• Short walks using a crutch as needed</li> </ul> <p><b>RECOMMENDED LOAD</b></p> <ul style="list-style-type: none"> <li>• Short but frequent bouts of ROM, quad activation 2-3x/day</li> <li>• Stationary bike 1x/day, 10-20 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Transition off crutches</li> <li>• Full knee extension/hyperextension</li> <li>• No extension lag</li> <li>• 120°+ of knee flexion</li> </ul>
<b>PHASE II</b>	2 to 4	<p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Extension—heel props and prone hangs as needed</li> <li>• Flexion—continue with end range heel slides</li> <li>• Bilateral mini squats—focus on proper alignment</li> <li>• Multi-plane open and closed kinetic chain hip strengthening.</li> <li>• Step-up progression—focus on proper alignment</li> <li>• Hamstring activation with bridge on floor, ball or box</li> <li>• Progress to unilateral heel raise off the floor, then off step</li> <li>• Proprioception drills</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>• Stationary biking</li> <li>• Treadmill/outdoor walking, focus on proper gait mechanics</li> </ul> <p><b>RECOMMENDED LOAD</b></p> <ul style="list-style-type: none"> <li>• ROM: 2-3x/day</li> <li>• Strength: 1x/day open chain; 3x/week closed chain</li> <li>• Cardiovascular: 20 minutes/day with low intensity</li> </ul>	<ul style="list-style-type: none"> <li>• Progress off crutches</li> <li>• Full knee extension/hyperextension</li> <li>• Knee flexion to full as tolerated</li> <li>• Normalize gait mechanics</li> <li>• Normalize patellofemoral joint and scar mobility</li> </ul>

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<b>PHASE II (continued)</b>	4 to 6	<p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>Controlled movement series - warm-up</li> <li>Leg press, hamstrings curls, calf raises</li> <li>Single leg RDL's</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>Increase intensity/duration</li> <li>Stationary biking</li> <li>Treadmill/outdoor walking, focus on proper gait mechanics</li> <li>Arc trainer or elliptical</li> </ul> <p><b>RECOMMENDED LOADING</b></p> <ul style="list-style-type: none"> <li>ROM: 2x/day</li> <li>Strength: 3x/week on closed chain loading</li> <li>Cardiovascular: 20-30 minutes/day low/moderate intensity</li> </ul>	<ul style="list-style-type: none"> <li>Reduce inflammation</li> <li>Full ROM</li> <li>Normal gait</li> </ul>
<b>PHASE III</b>	6 to 8	<p><b>MOVEMENT PREP</b></p> <ul style="list-style-type: none"> <li>Foam roller</li> <li>Controlled movement series</li> </ul> <p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>Weighted squat progression</li> <li>Single leg squat/lunge progression (dips, retro, walk, split), focus on eccentric control and alignment</li> <li>Monster walks</li> </ul> <p><b>CORE PROGRAM</b></p> <ul style="list-style-type: none"> <li>Front plank—full, may advance to alternating leg lift</li> <li>Bridge—marching or single leg</li> <li>Dead bug progression</li> <li>Quadruped alternating arm/leg</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>Stationary biking</li> <li>Treadmill/outdoor walking, focus on proper gait mechanics</li> <li>Arc trainer or elliptical</li> </ul> <p><b>RUNNING PROGRESSION</b></p> <ul style="list-style-type: none"> <li>Basic ladder series</li> <li>Skipping</li> <li>Walk/jog interval program</li> </ul> <p><b>JUMPING PROGRESSION</b></p> <ul style="list-style-type: none"> <li>Low amplitude bilateral single response jumps</li> </ul> <p><b>SPORTS SPECIFIC ACTIVITY PROGRESSION</b></p> <ul style="list-style-type: none"> <li>Outdoor biking: <b>WEEK 6</b></li> <li>Shallow water pool running: <b>WEEK 6</b></li> <li>Swimming, free style: <b>WEEK 6</b></li> <li>High intensity interval work with CV program: <b>WEEK 6-8</b></li> <li>Non-reactive &amp; non-contact on-field/court progression</li> </ul> <p><b>RECOMMENDED LOADING</b></p> <ul style="list-style-type: none"> <li>ROM: 1-2x/day</li> <li>Strength: 2-3x/week maximum with closed chain loading</li> <li>Cardiovascular: 20-45 minutes 5x/week, moderate intensity</li> </ul>	<ul style="list-style-type: none"> <li>Control inflammation with increasing loads</li> <li>Full knee flexion and extension with terminal stretch</li> <li>Progressive strengthening</li> <li>Increase muscular endurance</li> </ul>

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<b>PHASE IV</b>	8 to 16	<p><b>MOVEMENT PREP</b></p> <ul style="list-style-type: none"> <li>• Foam roller</li> <li>• Controlled movement series</li> </ul> <p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Increasing loads from phase III</li> <li>• Core program: Increase load as appropriate</li> </ul> <p><b>CARDIOVASCULAR EXERCISE</b></p> <ul style="list-style-type: none"> <li>• Stationary biking</li> <li>• Arc trainer or elliptical</li> <li>• Swimming</li> </ul> <p><b>RUNNING PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Advanced ladder series</li> <li>• Linear acceleration/deceleration</li> <li>• Sprinting</li> <li>• Change of direction and lateral agility</li> </ul> <p><b>JUMPING PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Low amplitude bilateral single response jumps</li> <li>• Bilateral multiple response jumps</li> <li>• Unilateral single response jumps</li> </ul> <p><b>SPORTS SPECIFIC ACTIVITY PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Interval golf program: <b>WEEK 8</b></li> <li>• Progress intensity with field/court working toward full RTS</li> </ul> <p><b>SPORTS TEST AND FULL RETURN TO ACTIVITY</b></p> <ul style="list-style-type: none"> <li>• Follow-up examination with physician</li> <li>• Sports test for return to competition at <b><u>12 weeks</u></b></li> </ul> <p><b>RECOMMENDED LOADING</b></p> <ul style="list-style-type: none"> <li>• ROM: global stretching</li> <li>• Strength: 2-3x/week with increasing resistance</li> <li>• Cardiovascular: 20-45 minutes 5x/week. Alternate impact and non-impact days using sound recovery principles</li> </ul>	<ul style="list-style-type: none"> <li>• Control inflammation with increasing loads</li> <li>• Progressive strengthening</li> <li>• Increase muscular strength, power and endurance</li> <li>• Establish ETA</li> </ul>