

## MENISECTOMY AND DEBRIDEMENT (DJD) POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
<b>MAXIMUM PROTECTION</b>	0 to 1	<b>CRUTCHES:</b> 50% partial weight bearing x 1 week <b>EXERCISE PROGRESSION</b> <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> <b>CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>Stationary biking</li> </ul> <b>RECOMMENDED LOAD</b> <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	<b>EXERCISE PROGRESSION</b> <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> <b>CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>Stationary biking</li> <li>Short walks using a crutch as needed</li> </ul> <b>RECOMMENDED LOAD</b> <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>Begin to 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	<b>EXERCISE PROGRESSION</b> <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 progression or partial range leg press focus on proper alignment with very gradual progression in depth and resistance.</li> <li>Multi-plane open and closed kinetic chain hip strengthening. Limit repetitions with more severe DJD</li> <li>Step-up progression – minimal step height, slow progression</li> <li>Hamstring activation with bridge on floor, ball or box</li> <li>Proprioception drills</li> </ul> <b>CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>Stationary biking</li> <li>Treadmill/outdoor walking, focus on proper gait mechanics</li> </ul> <b>RECOMMENDED LOAD</b> <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>

	Time Frame (Weeks)	Guidelines	Goals
<b>PHASE II (continued)</b>	4 to 6	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>Controlled movement series - warm-up</li> <li>Leg press, hamstrings curls, calf raises</li> </ul> <b>CARDIOVASCULAR EXERCISE</b> <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 as tolerated</li> </ul> <b>RECOMMENDED LOADING</b> <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 with low to 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 12	<b>MOVEMENT PREP</b> <ul style="list-style-type: none"> <li>Foam roller</li> <li>Controlled movement series</li> </ul> <b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>Bilateral and unilateral closed chain progression as appropriate based on articular surfaces</li> <li>Leg press and hamstring curls</li> <li>Monster walks</li> <li>Core program as appropriate</li> </ul> <b>CARDIOVASCULAR EXERCISE</b> <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> <li>Swimming</li> </ul> <b>ACTIVITY PROGRESSION</b> <ul style="list-style-type: none"> <li>OUTDOOR BIKING: <u>week 6</u></li> <li>SWIMMING: <u>freestyle, week 6</u></li> <li>GOLFING: <u>Interval golf progression</u></li> </ul> <b>RECOMMENDED LOADING</b> <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>
<b>PHASE IV</b>	12 to 16	<b>MOVEMENT PREP</b> <ul style="list-style-type: none"> <li>Foam roller</li> <li>Controlled movement series</li> </ul> <b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>Increasing loads from phase III</li> <li>Core program: Increase load as appropriate</li> </ul> <b>NON-IMPACT CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>Stationary biking</li> <li>Arc trainer or elliptical</li> <li>Swimming</li> </ul> <b>ACTIVITY PROGRESSION</b> <ul style="list-style-type: none"> <li>GOLFING: <u>as appropriate</u></li> <li>MINIMAL IMPACT SPORTS: <u>as appropriate</u></li> <li>SKIING: <u>avoid bumps</u></li> </ul> <b>MODIFIED SPORTS TEST AND PHYSICIAN FOLLOW-UP</b> <ul style="list-style-type: none"> <li>Follow-up examination with physician</li> </ul> <b>RECOMMENDED LOADING</b> <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 3-5x/week.</li> </ul>	<ul style="list-style-type: none"> <li>Establish RTA</li> </ul>