

**MENISCAL ROOT REPAIR  
REHABILITATION PROTOCOL  
DR. CARSON (REVISED 3/22/18)**

The rehabilitation guidelines are presented in a criterion based progression. Specific time frames, restrictions and precautions are given to protect healing tissues and the surgical repair/reconstruction. General time frames are also given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance and injury severity.

Specific attention must be give to impairments that caused the initial problem. For example if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

**ATTENTION PHYSICAL THERAPISTS—STRESS IMPORTANCE OF THE FOLLOWING:**

- Place patient in brown compression stocking (20-30 mmHg) at first PT appointment. Wear during daytime only and d/c at night—instruct patient/family member how to don/doff stocking
  - May discharge when no swelling or effusion- typically 3-4 weeks p/o
- Stress early knee extension. Should reach full knee ext by 2 weeks post-op
- Stress no pillows under popliteal fossa. Always under calf/heel only to progress knee extension

**PHASE I (Surgery to 6 weeks), Begin Date:**

APPOINTMENTS	Meet with the Physician at: 10-14 days post-op Begin Physical Therapy 3-5 days post-op, meet ~1x week.
REHAB GOALS	1. Protection of the post-surgical knee. 2. Restore normal knee extension. 3. Eliminate effusion. 4. Restore leg control
PRECAUTIONS	1. Must wear the brace locked in extension and toe-touch weight bearing activities x 6 weeks 2. Use axillary crutches for normal gait. 3. Do not flex the knee past 90° for 6 weeks
ROM EXERCISES	Knee extensions on a bolster Prone hangs Supine wall slides to 90° Heel slides to 90°
SUGGESTED THERAPEUTIC EXERCISE	Quad sets SLRs

	4-way leg lifts in standing with brace on for balance and hip strength
CARDIOVASCULAR EXERCISE	Upper body circuit training or UBE
OTHER	Patellar mobs at 2 weeks p/o Begin scar mobs at 4-6 weeks p/o when adequate healing
PROGRESSION CRITERIA	<ol style="list-style-type: none"> <li>1. Pain free gait using locked brace without crutches</li> <li>2. No effusion</li> <li>3. Knee flexion to 90° (until after 6 weeks) even with ACL</li> </ol>

**PHASE II (begin at 6 weeks), Begin Date: \_\_\_\_\_**

Ambulation with brace locked in full extension until 6 weeks post op.

APPOINTMENTS	Meet with the Physician at: Physical therapy 1x every 1-2 weeks.
REHAB GOALS	<ol style="list-style-type: none"> <li>1. Single leg stand control</li> <li>2. Normalize gait</li> <li>3. Good control and no pain with functional movements, including step up/down, squat, partial lunge (staying less than 60° of knee flexion).</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Continue brace locked in extension with TTWB'ing x 6 weeks post-op; 50% WB at 7 weeks p/o with brace locked in extension; FWB at 8 weeks with brace locked in ext; d/c brace at 9 weeks, WBAT</li> <li>2. No forced flexion-as in PROM flexion or weight bearing activities that push past ~60° of knee flexion (beginning at 6 weeks po)</li> <li>3. Avoid post-activity swelling.</li> <li>4. No impact activities.</li> </ol>
SUGGESTED THERAPEUTIC EXERCISE	<p>Non-impact balance and proprioceptive drills</p> <p>Stationary bike</p> <p>Gait drills</p> <p>Hip and core strengthening</p> <p>Stretching for patient specific muscle imbalances</p> <p>Quad strengthening—closed chain exercises short of 60° knee flex</p>

CARDIOVASCULAR EXERCISE	Non-impact endurance training; stationary bike, Nordic track, swimming, deep water run, cross trainer
PROGRESSION CRITERIA	<ol style="list-style-type: none"> <li>1. Normal gait on all surfaces</li> <li>2. Ability to carry out functional movements with out unloading affected leg or pain, while demonstrating good control.</li> <li>3. Single leg balances greater than 15 sec.</li> </ol>

**PHASE III (begin after meeting phase II criteria, ~3 months) Begin Date: \_\_\_\_\_**

APPOINTMENTS	Meet with the Physician at: Physical therapy 1x every 1-2 weeks.
REHAB GOALS	<ol style="list-style-type: none"> <li>1. Good control and no pain with sport and work specific movements, including impact.</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Post-activity soreness should resolve within 24 hours</li> <li>2. Avoid post-activity swelling.</li> <li>3. Avoid posterior knee pain with end range flexion.</li> </ol>
SUGGESTED THERAPEUTIC EXERCISE	<ul style="list-style-type: none"> <li>• Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to same foot.</li> <li>• Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities.</li> <li>• Sport/work specific balance and proprioceptive drills</li> <li>• Hip and core strengthening</li> <li>• Stretching for patient specific muscle imbalances</li> </ul>
CARDIOVASCULAR EXERCISE	Replicate sport or work specific energy demands.
RETURN TO SPORT/WORK CRITERIA	<ol style="list-style-type: none"> <li>1. Dynamic neuromuscular control with multi-plane activities, without pain or swelling.</li> </ol>

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Last updated 3/21/18