

**MENISCAL ROOT REPAIR
REHABILITATION PROTOCOL
DR. AUKERMAN (REVISED 8/20/19)**

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"> 1. Pain free gait using locked brace without crutches 2. No effusion 3. Knee flexion to 90° (until after 6 weeks) even with ACL

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"> 1. Single leg stand control 2. Normalize gait 3. Good control and no pain with functional movements, including step up/down, squat, partial lunge (staying less than 60° of knee flexion).
PRECAUTIONS	<ol style="list-style-type: none"> 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; unlock brace at 9 weeks; wean out of brace at 10 weeks 2. No forced flexion-as in PROM flexion or weight bearing activities that push past ~60° of knee flexion (beginning at 6 weeks po) 3. Avoid post-activity swelling. 4. No impact activities.
SUGGESTED THERAPEUTIC EXERCISE	<p>Non-impact balance and proprioceptive drills Stationary bike Gait drills Hip and core strengthening Stretching for patient specific muscle imbalances 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"> 1. Normal gait on all surfaces 2. Ability to carry out functional movements with out unloading affected leg or pain, while demonstrating good control. 3. Single leg balances greater than 15 sec.

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

Last updated 3/21/18