



# HUDSON PRO ORTHOPAEDICS & SPORTS MEDICINE

## Imran Ashraf, MD Rehabilitation Guidelines for Meniscal Transplantation

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, and rehab compliance. The therapist should closely communicate with the physician during all phases of rehabilitation.

### PHASE I (Surgery to 4 weeks)

APPOINTMENTS	Meet with physician at 1 week post op Begin physical therapy 3-5 days post-op, meet 1x week
REHAB GOALS	<ol style="list-style-type: none"> <li>1. Protection of the post-surgical knee</li> <li>2. Restore normal knee extension</li> <li>3. Eliminate effusion</li> <li>4. Restore leg control</li> </ol>
BRACE	<ol style="list-style-type: none"> <li>1. ELS brace locked for all weight bearing activities for 4-6 weeks</li> <li>2. ELS brace unlocked at weeks 5-8. Begin with PWB when first initialed the flexed weight bearing</li> </ol>
ROM EXERCISES	Knee extension on a bolster Prone hangs Supine wall slides to 0-90 degrees Heel slides to 0-90 degrees *** Do not flex the knee past 90 degrees***
SUGGESTED THERAPEUTIC EXERCISE	<ul style="list-style-type: none"> <li>• Quad sets</li> <li>• SLRs</li> <li>• 4 way leg lifts in standing with brace on for balance and hip strength</li> </ul>
CARDIOVASCULAR EXERCISE	Upper body circuit training or UBE
PROGRESSION CRITERIA	<ol style="list-style-type: none"> <li>1. Pain free gait using unlocked brace without crutches</li> <li>2. No effusion</li> <li>3. Knee flexion to 90 degrees</li> </ol>

### PHASE II (begin at 6-8 weeks)

APPOINTMENTS	Meet with physician at 1 and 2 months post-op
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	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 degrees of knee flexion)</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. No forced flexion – as in PROM flexion or weight bearing activities that push past 60 degrees of knee flexion</li> <li>2. Avoid post activity swelling</li> <li>3. 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 0-45 degrees knee flex weeks 6-8 weeks and 0-75 degrees for weeks 8-10 weeks</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 balance greater than 15 seconds</li> </ol>

### **PHASE III (begin after meeting phase II criteria ~ 4 months)**

APPOINTMENTS	Meet with physician at 14-16 weeks post-op 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 – DEPENDENT ON PATIENT GOALS AND SURGEON COLLABORATION</li> <li>• Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities – DEPENDENT ON PATIENT GOALS AND SURGEON COLLABORATION</li> <li>• Strength and control drills related to sport specific movements</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 LIGHT SPORT CRITERIA	<ol style="list-style-type: none"> <li>1. Dynamic neuromuscular control with multi-plane activities, without pain or swelling</li> </ol>

	<ol style="list-style-type: none"><li>2. Biodex scores at least 85-90% of opposite side</li><li>3. Surgeon clearance</li><li>4. At least 6 months post op</li></ol>
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