**THE STONE CLINIC**

ORTHOPAEDIC SURGERY, SPORTS MEDICINE AND REHABILITATION

MENISCUS REPAIR

Post-Operative Physical Therapy Protocol

**General Considerations:**
- Partial weight-bearing status (<50%), unless otherwise ordered by MD. Walk with crutches. Heel lift in opposite shoe to normalize gait.
- Surgical knee will be in a hinged rehab brace locked in FULL EXTENSION for 4 weeks post-op.
- Regular assessment of gait to avoid compensatory patterns.
- Regular manual mobilizations to surgical wounds and associated soft tissue to decrease the incidence of fibrosis.
- No direct palpation to surgical portals x 4 weeks. Consider the edge of the bandages as the “no touch zone” (approximately 2 inches in all directions). See Wound Care Protocol for full details.
- No resisted leg extension machines (isotonic or isokinetic) at any time.
- No high impact or cutting / twisting activities for at least 6 months post-op.
- No resisted lateral movement for 12 weeks
- M.D./nurse follow-up visits at Day 2, Day 14, 1 month, 3 months, 6 months, and 1 year post-op.
- During the first 4 weeks: TWICE PER DAY: Without brace, allow GRAVITY ONLY (passive only) to bend knee back as tolerated BUT NO MORE THAN 90 DEGREES for a good knee stretch without increase in pain. Relax knee and stretch for 60 seconds.

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<tr>
<th><strong>Week 1:</strong></th>
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<td>Nurse visit day 2 post-op to change dressing and review home program.</td>
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<td>Ice and elevation every 2 hours for 15-20 min each session.</td>
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**Manual:**
- Soft tissue treatments for edema / pain control and to posterior musculature, ITB, add, quad, calf. No direct palpation of surgical portals x 4 weeks.

**Exercise:**
- Straight leg raise exercises (lying, seated, and standing), quadriceps/adduction/ gluteal sets, ankle pumps
- Well-leg stationary cycling, upper body ergometer for cardio. Add upper body and core conditioning.
- Daily edge of bed dangle for passive knee flexion (allow knee to hang in pain-free range with light stretch).

**Goals:**
- Decrease pain/edema.
- Passive range of motion 0-70 degrees.
- Gait: partial weight bearing (<50%) with brace locked in extension. Crutches used for gait.

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<th><strong>Weeks 2 - 4:</strong></th>
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<td>Nurse visit at day 14 for suture removal and check-up.</td>
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**Manual:**
- Continue with soft tissue treatment for edema/pain, posterior musculature, iliotibial band, adductor, quadriceps, calf.

**Exercise:**
- Continue with previous, manual resisted exercises (i.e. PNF patterns) of the foot, ankle and hip. Trunk stabilization program, three limb plank. Single leg balance and proprioceptive exercises.
- Aerobic exercises (i.e. unilateral cycling, upper body ergometer, Schwinn Air-Dyne with uninvolved leg and arms only, well body bike, single leg row machine).
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## Post-Operative Physical Therapy Protocol

<table>
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<th>Weeks 4 - 6:</th>
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| **Goals:** | Decrease pain/edema.  
Passive range of motion 0-90 degrees.  
Gait: Partial-weight bearing (<50%) with brace locked in extension. Crutches used with gait. |
| **Manual:** | - Stretching, exercises and manual treatments to improve range of motion (especially flexion). Initiate surgical portal scar mobilization if portals are completely closed. |
| **Exercise:** | - Incorporate functional exercises (i.e. partial squats, calf raises, mini-step-ups, proprioception).  
- Stationary bike low cadence, low resistance.  
- Slow walking on treadmill for gait training (preferably a low-impact treadmill). |

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<th>Weeks 6 - 8:</th>
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| **Goals:** | Gait: unlock brace; wean off brace and crutches. Emphasize proper gait mechanics.  
Passive range of motion 0-120 degrees. |
| **Manual:** | - Continue as needed for ROM, decrease pain, muscle guarding. |
| **Exercise:** | - Increase the intensity of functional exercises (i.e. cautiously increase depth of closed-chain exercises, Shuttle/leg press). Do not overload closed or open-chain exercises. |

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<th>Weeks 8 - 12:</th>
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<td><strong>Manual:</strong></td>
<td>Continue with soft tissue, joint mobilizations as needed.</td>
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| **Exercise:** | - Add lateral training exercises (side-step ups, lateral stepping).  
- Introduce more progressive closed chain and agility leg exercises.  
- Patients should be pursuing a home program with emphasis on sport/activity-specific training.  
- Consider road cycling in saddle. |
| **Goals:** | Full range of motion.  
Initiate lateral training with no resistance. |
MENISCUS REPAIR

Post-Operative Physical Therapy Protocol

**Weeks 12-16:**
- Complete 3 month sports test and initiate return to running program.
- Low-impact activities until 16 weeks.
- Increase the intensity of strength and functional training for gradual return to activities.
- Initiate resisted lateral training (theraband resisted side-stepping).

**Goals:** Preparedness for Sports Test I for s/p 3 month checkup with Dr. Stone.
Complete and pass Sports Test 1.