



ORTHOPEDIC AND SPORTS MEDICINE CENTER

SPORTS MEDICINE DIVISION
COMBINED REHAB PROTOCOLS



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**Meniscus Repair
Rehab Protocol**
Edited: May, 2015

TIMELINE

GOALS

EXERCISES/METHODS

Day 1-week 2

+Protect the repair and allow for maximal healing
 +Control swelling, inflammation
 +Full passive knee extension
 +Gradually increase knee flexion
 +Establish independent quad control

+Extension: Heel prop, calf (with ext) and hamstring stretches, Quad sets (electrical stimulation prn), 3 way SLR, multi-directional patellar mobs
 +Flexion: Inf patellar mobs, assisted heel slides, bike archs

Stage 2: Weeks 2-4

Gradually increase PROM:
 Week 2 0-100
 Week 3 0-110
 Week 4 0-120

+bike full revolution
 +assisted heel slides progressing to full range
 +knee extension 90-0

Stage 3: Week 4-6

+Begin weight acceptance training

+Gait training in AlterG at 50%WB at 2.0 mph

 + WS training
 +leg press 0-60
 + wall squat 0-60
 +proprioceptive training: Tiltboard
 +CKC exercises
 +Hip 4 way strengthening

Milestones for end of week 6:

- Full Knee ROM
- Full Weight Bearing
- SLR without quad lag
- Gait without limp

BRACING

- Immobilizer until SLR without sag 10x10
- Then IROM 0-90 for 6 weeks

ROM RESTRICTIONS

- 0-90 for 6 weeks

WEIGHT BEARING

- PWB for 4 weeks
- 25-50% Week 4
- 50-75% week 5
- 100% after 6 weeks

OTHER RESTRICTIONS AND KEY CONSIDERATIONS

No kneeling or WB flexion >90 for 3 months

TIMELINE

GOALS

EXERCISES/METHODS

Moderate Protective Phase: 7-10 weeks

- Continue use of brace for activity only until 8 weeks
- Avoid twisting, pivoting, running and deep squatting

+Restore full PROM
 +Diminish swelling, inflammation
 +Re-establish muscle control
 +Promote proper gait pattern

+Leg press/total gym 70-0,
 +knee ext 90-40,
 +hip abd/add
 + wall squats 0-70
 +vertical squat 0-60
 +address RNT as needed t/o the above
 +lateral step ups, front step downs
 +Balance and proprioceptive training:
 SLS, advanced tiltboard progression, cone step overs
 + Clam progression
 +TKEs
 +lunges (front, lateral)
 +SLS static to dynamic training,

Controlled Activity Phase: 10-12 weeks

- Cleared for HS strengthening

+Continue to progress strength, proprioception, and neuromuscular control and endurance

+Begin light HS curls progressing to deadlift
 +Plank progression

Early Athletics 13-18 weeks

- Alter G jogging 3 months
- FWB Running 4 months
- Advanced Plyometrics 4months

+Improve strength and endurance

+Stair climber +front lunges + functional squats +deadlift progression+ initiate light plyometrics +Initiate jogging in the alter G

Return to Activity Phase Months 6-8

- Deep squatting permitted at 5.5 months
- Sprinting 6 months
- Pivoting/Cutting 7 months
- Agility 7 months
- Return to sports 7-8 months

+Improve strength and endurance
 +Prepare for unrestricted activities
 +Progress to agility and cutting drills

+Squats (0-90)+ multi-planar lunges
 +advanced balance with dynamic surface training +plyometrics +running +agility
 +sports specific drills

SHOWERING

1. May Shower day 1 after surgery
2. Must “waterproof” surgical site for 5 days after surgery
3. No submerging wounds for 4 weeks

WOUND CARE

1. Remove everything except steri strips the day after surgery
2. Place clean gauze or op-site on wounds daily for 5 days

MEDICATIONS

1. Pain medicine only as needed. Wean off as soon as possible
2. Don't over-use NSAIDS
3. Aspirin 325mg daily for 1 month for DVT prophylaxis

RETURN TO PLAY CRITERIA

Pre-RTP Criteria before testing can commence	<p>Full AROM</p> <p>Resolution of pain</p> <p>No/Trace joint effusion present</p> <p>MMT grossly 5/5 strength in LE</p> <p>LEFS: $\geq 75/80$ (95%)</p> <p>Lysholm Knee Rating: $\geq 95\%$</p> <p>1RM SL Leg Press $\geq 90\%$ contralateral side</p> <p>1RM SL Hamstring Curl $\geq 90\%$ contralateral side</p>
Lower Limb Symmetry Index (LSI): LSI % (mean score of 3 trials on injured limb/ mean score of 3 trials on uninjured limb) x 100	<p>SL Hop: $\geq 90\%$</p> <p>SL Triple Hop: $\geq 90\%$</p> <p>SL 6 meter Timed Hop: $\geq 90\%$</p> <p>SL Cross-over Hop: $\geq 90\%$</p> <p>Overall Score: $\geq 90\%$</p>
Vail Sports Tests:	<p>Passing Score $\geq 46/54$ (85%)</p>
Tuck Jump Assessment (TJA):	<p>perfect score on the TJA or improvement of 20 percentage points from the initial score</p>
Single Leg Squat: No Errors in Form (Errors listed right)	<p>Arm strategy: removal of hand off the waist</p> <p>Trunk alignment: leaning in any direction</p> <p>Pelvis plane: loss of horizontal plane</p> <p>Knee position: tibial tuberosity medial to second toe or tibial tuberosity medial to medial border of foot</p> <p>Steady stance: subject stepped down on non-tested limb, or foot wavered from side-to-side</p>
Modified Star Balance Excursion Test (Y Balance Test):	<p>SEBT % = ((mean score of 3 trials in anterior distance + mean score of 3 trials in posterior lateral distance + mean score of 3 trials in posterior medial distance)/ leg length of stance limb) x 100. Passing Score $\geq 94\%$</p>
Core Testing: (ongoing research): $\geq 90\%$ of all standard timed tests:	<p>Right Single Leg Bridge: Men 95 seconds; Females 75 seconds</p> <p>Left Single Leg Bridge: Men 99 seconds; Females 78 seconds</p> <p>Flexor Endurance Test: Men 136 seconds; Females 134 seconds</p> <p>Extensor Endurance Test: Males 160 seconds; Females 185 seconds</p> <p>Lower Abdominal Muscle Testing: Males 5/5; Females $\geq 4/5$ (75 \square = 3/5, 60 \square = 3+/5, 45 \square = 4-/5, 30 \square = 4/5, 15 \square = 4+/5, 0 \square = 5/5)</p>

RTP INSTRUCTIONS

RTP evaluation can progress throughout treatment as appropriate

PRE-RTP

Complete all testing in Pre-RTP section. Only Continue on when able to pass

SESSION 1

LSI, Vail Sports, TJA

SESSION 2

Single leg squat, Y Balance, Core Testing