



## REHABILITATION GUIDELINES

### **KNEE ARTHROSCOPY, PARTIAL MENISCECTOMY, LOOSE BODY REMOVAL OR DEBRIDEMENT**

The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after an arthroscopic meniscectomy. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

#### **INDIVIDUAL CONSIDERATIONS:**

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#### **PHASE I (0-2 weeks)**

##### **Goals**

- Control inflammation and pain
- Achieve full ROM
- Regain quadriceps control
- Full weight-bearing

##### **Brace**

- None
- Ice 3-4 times per day for 20 minutes and after every therapy session

##### **Weight-bearing Status**

- Weight-bearing as tolerated with crutches as needed for 1-5 days until normal gait is re-established

##### **Therapeutic Exercises**

- Straight leg raises in all planes
- Heel slides, calf pumps, quadriceps sets
- Electrical stimulation as needed to control edema and regain quad tone
- Wall slides
- Patellar mobilization
- Balancing activities on a stable platform with eyes open and closed
- Quad, hamstring, gastroc, ITB stretching
- Stationary bike with low resistance and high seat
- Toe raise

#### **PHASE II (2- 6 weeks)**

##### **Criteria**

- Good quad set, SLR without extension lag
- Full AROM

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**PHASE II (continued)**

**Goals**

- Maintain full active ROM
- Progress with strengthening and endurance
- Gradual return to functional activities

**Brace/Weight-bearing status**

- Full weight-bearing, no crutches or brace
- Use ice after therapy

**Therapeutic Exercises**

- Mini-squats (0-45 degrees)
- Stationary Bike (high seat, low tension)
- Closed chain extension (leg press:0-60 degrees)
- Hamstring curls
- Pool walking/jogging
- Stair climbing (up/down, forward. backwards), StairMaster
- Elliptical trainer, cross-country skiing
- Begin jogging
- *Plyometrics*
  - Stair jogging
  - Box jumps at 6 and 12 inch heights
- *Proprioception*
  - Mini-tramp standing and bouncing
  - Unstable platform (BAPS) with eyes open and closed
  - Ball throwing and catching from stable surface, then advance to unstable surface

**PHASE III (6 weeks +)**

**Criteria**

- Normal gait
- Full, painless range of motion

**Goals**

- Progress with strength, power, and proprioception
- Return to full activities by 4-8 weeks depending on progress
- Progress with functional and sports-specific training

**Therapeutic Exercise**

- Continue with ROM and strengthening exercises as above
- May progress with strengthening as tolerated
- Sports specific drills

**Criteria for Return to Sports**

- Full, painless range of motion with no effusion
- 90% hamstring and quadriceps strength of contralateral side



## REHABILITATION GUIDELINES

### RETURN TO RUNNING PROGRAM

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#### PHASE I – Warm Up Walk 15 Minutes, Cool Down Walk 10 Minutes

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Day	1	2	3	4	5	6	7
<b>Week 1</b>	W5/J1x5*		W5/J1x5		W4/J2x5		W4/J2x5
<b>Week 2</b>		W3/J3x5		W3/J3x5		W2/J4x5	
<b>Week 3</b>	W2/J4x5		W1/J5x5		W1/J5x5		Return to Run

Key: W=walk, J=jog

\*W5/J1x5= Walk (5 minutes), Jog (1 minute); repeat 5 times

#### PHASE II – Warm Up Walk 15 Minutes, Cool Down Walk 10 Minutes

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Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1</b>	<b>20 min</b>		<b>20 min</b>		<b>20 min</b>		<b>25 min</b>
<b>2</b>		<b>25 min</b>		<b>25 min</b>		<b>30 min</b>	
<b>3</b>	<b>30 min</b>		<b>30 min</b>		<b>35 min</b>		<b>35 min</b>
<b>4</b>		<b>35 min</b>		<b>40 min</b>		<b>40 min</b>	
<b>5</b>	<b>40 min</b>		<b>45 min</b>		<b>45 min</b>		<b>45 min</b>
<b>6</b>		<b>50 min</b>		<b>50 min</b>		<b>50 min</b>	
<b>7</b>	<b>55 min</b>		<b>55 min</b>		<b>55 min</b>		<b>60 min</b>
<b>8</b>		<b>60 min</b>		<b>60 min</b>			

- Recommendations:
  - Runs should occur on softer surfaces during Phase 1
  - Non-impact activity on off days
  - Goal is to increase mileage and then increase pace; avoid increasing two variables at once
  - 10% rule: no more than 10% increase in mileage per week



## REHABILITATION GUIDELINES

### **AGILITY AND PLYOMETRICS PROGRAM**

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This program is designed as a guide for clinicians and patients through a progressive return-to-run program. Patients should demonstrate > 80% on a Functional Assessment and started a running program prior to initiating this program (after lower extremity surgery).

#### **PHASE I: ANTERIOR PROGRESSION**

##### **Goals:**

- Safely recondition the knee
- Provide a logical sequence of progressive drills for pre-sports conditioning

##### **Agility:**

- Forward run
- Backward run
- Forward lean in to a run
- Forward run with 3-step deceleration
- Figure 8 run
- Circle run
- Ladder

##### **Plyometrics:**

- Shuttle press: Double leg → alternating leg → single leg jumps
- Double leg:
  - Jumps on to a box → jump off of a box → jumps on/off box
  - Forward jumps, forward jump to broad jump
  - Tuck jumps
  - Backward/forward hops over line/cone
- Single leg (these exercises are challenging and should be considered for more advanced athletes):
  - Progressive single leg jump tasks
  - Bounding run
  - Scissor jumps
  - Backward/forward hops over line/cone

##### **Criteria to Progress:**

- No increase in pain or swelling
- Pain-free during loading activities
- Demonstrates proper movement patterns



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## **PHASE II: LATERAL PROGRESSION**

### **Goals:**

- Safely recondition the knee
- Provide a logical sequence of progressive drills for the Level 1 sport athlete

### **Agility (\*Continue with Phase 1 interventions):**

- Side shuffle
- Carioca
- Crossover steps
- Shuttle run
- Zig-zag run
- Ladder

### **Plyometrics:**

- Double leg:
  - Lateral jumps over line/cone
  - Lateral tuck jumps over cone
- Single leg (these exercises are challenging and should be considered for the more advanced athletes):
  - Lateral jumps over line/cone
  - Lateral jumps with sport cord

### **Criteria to Progress:**

- No increase in pain or swelling
- Pain-free during loading activities
- Demonstrates proper movement patterns

## **PHASE III: MULTI-PLANAR PROGRESSION**

### **Goals:**

- Challenge athlete in preparation for final clearance for return to sport

### **Agility:**

- Box drill
- Star drill
- Side shuffle with hurdles

### **Plyometrics:**

- Box jumps with quick change of direction
- 90 and 180 degree jumps

### **Criteria to Progress:**

- Clearance from MD
- Functional Assessment
  - $\geq 90\%$  contralateral side
- Return to Sport Index