

R. Jay Lee, MD
Pediatric Orthopaedic Surgery
Sports Medicine
1800 Orleans St.
Baltimore, MD 21287-0881
443-287-1659 Office
443-287-5995 Fax

Melissa Fought, CRNP
Pediatric Nurse Practitioner
Pediatric Orthopaedics & Sports Medicine
443-287-1718 Office
443-287-5995 Fax
mashby@jhmi.edu



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Knee Meniscus Repair Protocol

*****Please refer to written prescription for any special instructions for each case*****

This protocol guides **return to running at 4 months and a progressive return to unrestricted activity by 6 months**. If the criteria are met sooner, the patient may begin a progressive return to activity **no earlier than 4 months post operatively**.

Weeks 0-2:

Goals:

1. Ambulation/Brace Use:
 - **Progress crutch use from TTWB to 50% WB by end of week 2 and brace opened to 30°**
 - Gait must be non-antalgic to progress weight bearing
 - Continue to sleep with brace locked in full extension until end of week 4
2. Minimize Effusion and pain
3. Maintain Full Knee Extension
4. Normal Quad activation
5. Promote Knee Flexion
 - 0°-60° by end of week 1
 - 0°-90° by end of week 2
6. Normal patellar mobility
7. Initiate proprioception/balance activities

Exercises:

- If lacking quadriceps contractility, initiate use of NMES
- No stationary biking, may use UBE (Upper Body Ergometer/ Arm Bike) for conditioning.
- No active isolated hamstring exercises
- All other exercises should adhere to above restrictions

Weeks 2-4:

Goals:

1. Ambulation/Brace Use:
 - **Continue use of crutches until end of week 4**
 - Progress from PWB to WBAT and brace opened to 60° o Gait must be non-antalgic to progress weight bearing
 - Continue to sleep with brace locked in full extension until end of week 4
2. Minimize Effusion and pain

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3. Maintain Full Knee Extension
4. Promote Knee Flexion
 - 0°-110° by end of week 4
5. Normal patellar mobility
6. Initiate proprioceptive/balance activities
7. Improve local muscular endurance

Exercises: (During supervised physical therapy may WBAT without brace)

- Continue with week 1 exercises
- Begin Stationary Bike, light resistance for ROM $\leq 90^\circ$
- Begin closed chain squats, limit to 45° of knee flexion
- Balance/Proprioception activities

Weeks 4-7:

Goals:

1. **Ambulation – full weight bearing with brace unlocked to 90°**
 - **May discharge brace by end of week 6 if following criteria are met**
 - ROM $\geq 100^\circ$
 - Single Leg Squat 30° with good knee control
2. Normalize ROM
3. Increase strength
4. Enhance proprioception/balance

Exercises:

- Initiate progressive resisted knee extension
- Begin isolated hamstring curls, limited to 90° flexion
- Initiate unilateral squats, limited to 60° flexion
- Standing multi-hip exercises
- Progress balance, proprioception and conditioning

Weeks 8 and beyond:

Exercises:

- Continue to progress strength, balance, proprioception and coordination
- Begin hopping and agility drills as able

Running:

- May begin straight ahead progressive running program at 3 months if the following criteria are met:
 - Full, pain free range motion

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- No more than 1+ knee effusion
- Isokinetic testing Quad Peak Torque Deficit $\leq 25\%$
- The running activity must remain pain free and must demonstrate normal running mechanics.

Return to Sports Phase:

- Gradual and progressive return to sports at **4 months** if all of the following criteria are met:
 - Pain free running
 - No more than 1+ knee effusion • Isokinetic testing:
 - Quadriceps Peak Torque Deficit $\leq 10\%$
 - Total Work $\leq 10\%$
 - Pain free running
 - All Functional Tests $\geq 90\%$ and pain free with good neuromuscular control.
 - Single Hip for distance
 - Triple Hop for distance
 - Triple crossover hop for distance
 - Timed 6 meter hop
 - Unilateral Vertical hop