

Post-op PATIENT Instructions: MENISCUS REPAIR

Dressing: A dressing has been applied to your knee to absorb any fluid/blood. A small amount of blood on the dressing is expected. Leaving the steri-strips on the skin, replace the covering gauze dressing daily with new dry, sterile gauze (obtained from your pharmacy). Unless directed by your surgeon, **no salves, balms, or ointments (even antibiotic ointments) to the incisions.** Soreness and bruising is expected for several days afterward.

Showering (No bathtub): is permitted 72 hours after surgery with the incisions covered. After showering, gently dry the incision and apply a new dry dressing. **Do NOT soak/submerge the incisions. No swimming/hot-tubs until cleared by your surgeon.**

Ice: Ice is a powerful anti-inflammatory. Icepacks/wraps will help to reduce swelling and pain. Use liberally (20-30 min./session), but remember to protect the skin from direct contact (and frostbite).

Activity: Crutches may be needed for the first several days after surgery. Unless specified otherwise you may bear **full weight** on your leg immediately. Foot and ankle motion (foot pumps) are encouraged and will help to reduce your chance of a blood clot. Additionally, tightening the thigh muscle and straight leg raises will assist your thigh muscle in returning its function faster. Bending the knee as soon as you are comfortable (unless otherwise restricted) is also encouraged. However, **no driving until permission is given by your surgeon.**

Pain: A nerve block has been performed for immediate post-op pain control by the anesthesiologist. It typically “wears off” at about 8-12 hrs. following surgery. A long-acting narcotic (every 12 hrs) used in combination with a shorter-acting narcotic (taken every 3-4hrs as needed for breakthrough pain) is given for your pain control. **Begin taking these pain medications when you BEGIN experiencing pain!** These meds can take 30-45 minutes to start “working”. You do not want to play “catch-up” by letting your pain get out of control. Nausea, drowsiness, and constipation are common side effects of narcotics. Adequate fluid intake and a stool softener obtained over the counter from your local pharmacy is recommended to minimize constipation. Call the office if you are unable to tolerate your medication.

Precautions: If you develop temperatures above 101.5°F (38.5°C), uncontrolled pain, marked redness, persistent/discharged drainage, or significant swelling. Call the office **(813)-684-2663**

Follow-up: If you do not already have an appointment scheduled, call the office as soon as possible to schedule your first post-op visit.

Special Instructions: _____ (Additionally, follow any indicated instructions below.)

Physical therapy: per attached prescription; to be scheduled as soon as able

Weightbearing (operative leg): as tolerated

Brace: locked in full extension when weightbearing; ok to unlock to 90° flexion when sitting

PT/OT PRESCRIPTION: MENISCUS REPAIR

(Revised 11.3.15)

MD Orders for the Therapist:

- Physical Therapy Prescription: 2-3 times per week x 6 weeks
- Follow this protocol without substitution. Contact my office with any questions.

Christopher T. Donaldson, MD

REHABILITATION PRECAUTIONS

- Weight Bearing as tolerated with crutches and knee in brace
- No weight bearing flexion beyond 90 degrees for eight weeks
- No resistive hamstring exercises for 8 weeks
- Isotonic Strengthening
 - 40-90 degrees open-chained to avoid patellofemoral irritation
 - < 90 degrees closed-chained to avoid patellofemoral irritation
- All progression based on soft tissue healing

WEEK: 1-4

- **ROM**
 - Begin ROM progression from active-assisted to active (no force flexion beyond 90°)
 - Patellar mobilization
 - Edema control
 - Exercise bike
 - Half revolutions
- **Strengthening**
 - Neuromuscular re-ed with stim and/or biofeedback (if warranted)
 - Initiate NWB strengthening if weight restrictions in place
 - Modify ROM (See above)
 - Quad Set
 - SLR
 - Initiate both WB and NWB strengthening if weight bearing as tolerated
 - Modify ROM (See above)
 - Quad Set, TKE, etc
 - SLR
 - Balance exercise
 - Partial WB Shuttle/Leg Press
- **Goals to Progress to Next Phase**
 1. Good quad set
 2. ROM 0-90 degrees
 3. Little to no extension lag with SLR
 4. Minimal to no edema

WEEK: 4-6

- **Progress to full weight bearing by week 6**
 - D/C crutches appropriately per normalization of gait
- **Advance exercise if already weight-bearing per soft tissue healing**
- **ROM**
 - Continue as before (no forced flexion beyond 90°)

- Full exercise bike revolutions for ROM and endurance
- **Strength**
 - Progress partial to full weight bearing by week 6
 - Begin seated BAPS and heel/toe raises
 - Partial to FWB shuttle/Total Gym/aquatics strengthening
 - Bilateral LE progression to single LE strengthening
 - Trunk and lumbosacral strengthening
- **Goals to Progress to Next Phase**
 1. No antalgic gait without use of assistive device
 2. Good quad set
 3. Able to stand on single-leg
 4. No exacerbation with PWB strengthening

WEEK: 6-8

- **ROM**
 - Continues with emphasis on terminal extension and pain-free flexion
 - Exercise bike for endurance
- **Strength**
 - Begin FWB strengthening < 90 degrees and progress as tolerated
 - Progress NWB and WB strengthening/stability/balance/proprioception exercise
 - Lunges, steamboats, side-stepping, leg press, modified leg extensions, etc
 - Progress shuttle/Total Gym/Aquatics strengthening
 - Continue to progress lumbosacral strengthening
- **Goals**
 1. Increased strength/stability/proprioception with therapeutic exercise and without exacerbation of symptoms
 2. No reactive instability or effusion with WB activity

WEEK: 8-10

- **ROM**
 - Continue with exercise bike and stretching
- **Strength**
 - Begin PWB shuttle plyometrics
 - Shuttle jogging
 - Progress from bilateral to single LE
 - Progress from straight plane to rotational movements
 - Initiate isolated hamstring strengthening per tolerance
 - Progress LE and trunk strength and stability exercises
 - Hop downs
 - Emphasis on appropriate mechanics
- **Goals**
 1. Increased strength/stability/proprioception with therapeutic exercise without exacerbation of symptoms
 2. No reactive instability or effusion with WB activity

WEEK: 10-12

- **ROM**

- Continue per tolerance
- **Strength**
 - Continue and progress WB and NWB strengthening
 - Full weight bearing plyometrics
 - Bilateral
 - Shuttle
 - Rotational and single leg jumping
 - Initiate walk-jog progression
 - Criteria to initiate jogging
 - $\geq 7/10$ on #10 IKDC Questionnaire (**Appendix A**)
 - Complete single leg hop-downs without medial/lateral knee displacement
 - Normalized ROM
 - Audible rhythmic strike patterns and no gross visual antalgia
- **Goals to Progress to Next Phase**
 1. $\geq 7/10$ on #10 IKDC Questionnaire - **Appendix A**
 2. Complete plyometric and jogging activity without pain and/or dynamic instability
 3. No reactive effusion
 4. ROM 0-135 degrees

WEEK: 12-16

- **ROM**
 - Continue per tolerance and pre-exercise warm-up
- **Strength**
 - Full weight bearing plyometrics
 - Progress from straight-plane to diagonal/rotation exercise
 - Continue jogging progression
 - Strength progression stable to unstable surface
 - Emphasis on quad, hamstring and trunk dynamic stability
 - Shuttle/aquatics/Total Gym, etc
 - Progress rotational and single leg jumping
 - Begin agility exercises between 50-75% (utilize visual feedback to improve mechanics)
 - Side shuffling
 - Hopping
 - Carioca
 - Figure 8
 - Zig-Zag
 - Resisted jogging(Sports Cord) in straight planes, etc
- **Goals to Progress to Next Phase**
 1. **Functional Test**
 - 3 cross-over hop test for distance (within 15% of uninjured limb) – **Appendix A**
 2. **Isokinetic Testing***
 - Side to side symmetry isokinetic peak torque with knee extension and knee flexion (within 15% at 60°/sec, 180°/sec and 300°/sec)
 - Quad to Hamstring isokinetic strength ratio $\geq 60\%$
 3. Complete sport specific drills without exacerbation of symptoms or reactive instability

(4-6 Months) – Sports Specific Training

- **This sports specific phase should transition from the rehab specialist in the clinic to athletic trainer in the field as appropriate**

- **Strength**
 - Emphasis on quad, hamstring and trunk dynamic stability
 - Continue sport-specific agility exercises (utilize visual feedback to improve mechanics) – See above
 - Progress gradually to 100% per tolerance
 - Emphasis on power and change of direction
 - Utilize both indoor and outdoor surfaces
- **Goals to Return to Sport**
 - Physician clearance at 6 month check up
 - Symmetry with functional testing (3 single-leg cross-over, etc)
 - No reactive effusion or instability with sport-specific activity

Appendix A

IKDC #10 Question of Function

“How would you rank the function of your knee on the scale of 0 to 10 with 10 being normal, excellent function and 0 being the inability to perform any of your usual daily activities which may include sports?”

FUNCTION PRIOR TO YOUR KNEE INJURY:

Couldn't perform daily activities	0	1	2	3	4	5	6	7	8	9	10	No limitation in daily activities
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

CURRENT FUNCTION YOUR KNEE:

Couldn't perform daily activities	0	1	2	3	4	5	6	7	8	9	10	No limitation in daily activities
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Functional tests

1.) **Single hop for distance:** Have the subject line their heel up with the zero mark of the tape measure, wearing athletic shoes. The subject then hops as far as he can, landing on the same push off leg and hold for at least 3 seconds. The arms are allowed to move freely during the testing. Allow him to perform 4 practice hops on each leg. Then, have the subject perform 4 trials, recording each distance from the starting point to the back of the heel. Average the distances for each limb.

2.) **Cross-over hop for distance:** This test is set up with a 15cm strip, extending 6 meters. The subject lines his heel up at the zero mark of the tape measure and hops 3 times on one foot, crossing over the center line each time. Each subject should hop as far forward as he can on each hop, but only the total distance hopped is recorded. Allow the subject to perform 4 practice rounds before recording. Average the distances for each limb.

Scoring:

- Begin with the uninvolved leg. If using tape to mark distance, remove it before the next trial to minimize visual cues.
- Greater than a 15% difference in average distance between the right and left limbs should be cause for concern, indicating quad, and hamstring weaknesses that should be addressed prior to return to sport.
- If patient fails test, evaluate and implement appropriate strength/stability/balance exercise strategies. Once resolved, test again.