

Brian P. Davis, MD Sports Medicine, Shoulder, Knee, & Elbow Surgeon

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MENISCUS REPAIR

(SMALL, STABLE PERIPHERAL) POST OPERATIVE PROTOCOL

	Phase I - Hissue Protection/Healing Phase (0-2 weeks)
Weight Bearing □ NWB x wks □ TDWB x wks □ PWB% x wks □ WBAT	GOALS: 1) Reduce pain 2) Reduce effusion 3) Achieve full knee extension ROM 4) Facilitate quadriceps activation
☐ Brace Locked in Ext x wks	ROM: PROM/AAROM/AROM (0-MD prescribed limit) Gastroc/Soleus/Hams/Quad stretch
ROM Full ROM Locked full ext xwks Locked at° xwks ROM limits ° to° xwks ° to° xwks	EXERCISE: Quad isometrics SLR 4 way Clamshells at 30° and 60°
	MANUAL: Patella Mobilization Soft tissue mobilization patellar tendon
° to° xwks	MODALITIES: Functional Electrical Stimulation Cryotherapy
□° to° xwks □ 30-70° increase 10°/d @ dir □ None	Criterion for Progression: 1) Voluntary quadriceps isometric contraction 2) Good patellar mobility 3) No extensor lag with SLR 4) Knee AROM 0°-90°
□ Recommended Clinical Guidelines WB: TDWB x 1-2 weeks 75%-FWB x 3-4 weeks	Phase II – Tissue Proliferation Phase/Progression Phase (3-6 weeks) GOALS: 1) Pain and edema control
□ Precautions: No open chain hamstring curls until week 8 Estimated Return to Sport:	2) Improve knee AROM3) Strength progression- develop functional quad control4) Normalize gait pattern5) Minimize shear forces on knee
	ROM: PROM/AAROM/AROM (0-MD prescribed limit) Stationary Bike
Estimated Return to Sport.	EXERCISE: Standing weight shifting Open chain knee extension (90°-30°) Wall/mini squats (0°-45°) Forward/Lateral step ups Leg Press (60°-10°) Single limb stance Calf Raises

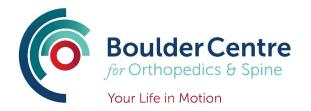
Dead Lift/Single Leg dead lift

Initiate scar mobilization

MANUAL:

Continue PRN

MODALITIES: Continue PRN



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Criterion for Progression:

- 1) Minimal to no edema/effusion
- 3) Full patellar mobility
- 4) Normalized gait pattern

Phase III - Tissue Remodeling/Hypertrophy Phase (7-20 weeks)

GOALS

- 1) Full knee AROM
- 2) Improve eccentric quad control
- 3) Strength progression

ROM:

ROM to full

EXERCISE:

Progressive Resistance Exercise
Mini squats/wall squats to 90°
Leg press to 90°
Single leg squats to 90°
Advanced single Leg balance/proprioception exercises
Lateral motion/stepping

CV Exercise:

Stairmaster/Climber Swimming (week 12)

Criterion for Progression:

- 1) No pain or edema/effusion
- 2) Knee AROM 0°-135°
- 3) 20 reps to 60 degrees single leg squat with eccentric control and good lower extremity alignment
- 4) Quad strength >80% of uninvolved LE (10RM single leg press or isokinetically if available)

Phase IV - Sport Specific Training (weeks 8-12)

GOALS:

- 1) Begin sport specific drills
- 2) Begin running progression
- 3) Normalize neuromuscular control
- 4) Normalize jumping/landing mechanics if indicated
- 5) Return to sport

EXERCISE:

Begin jogging progression
Begin agility progression
Begin plyometric progression
Begin sport specific strengthening

Criterion for Return to Sport:

(Recommend combination testing of strength, agility, and power according to available resources/clinic setting)

- 1) Lower Extremity Functional Test (LEFT)¹³
- 2) Hop Tests Single Hop, X-Hop, Triple Hop, Timed Hop >=85% uninvolved^{1,6,8-11}
- 3) Single leg squat to 60 degrees knee flexion with good control for 3 minutes^{7,8,10}
- 4) Quad strength > 90% of uninvolved (10RM leg press or isokinetic testing)¹²
- 5) IKDC (MCID 6.3@ 6mo; 16.7 @ 12 mo)^{2,4,5}