



MENISCUS REPAIR

(SMALL, STABLE PERIPHERAL) POST OPERATIVE PROTOCOL

Phase I – Tissue Protection/Healing Phase (0-2 weeks)

GOALS:

- 1) Reduce pain
- 2) Reduce effusion
- 3) Achieve full knee extension ROM
- 4) Facilitate quadriceps activation

ROM:

PROM/AAROM/AROM (0-MD prescribed limit)
Gastroc/Soleus/Hams/Quad stretch

EXERCISE:

Quad isometrics
SLR 4 way
Clamshells at 30° and 60°

MANUAL:

Patella Mobilization
Soft tissue mobilization patellar tendon

MODALITIES:

Functional Electrical Stimulation
Cryotherapy

Criterion for Progression:

- 1) **Voluntary quadriceps isometric contraction**
- 2) **Good patellar mobility**
- 3) **No extensor lag with SLR**
- 4) **Knee AROM 0°-90°**

Phase II – Tissue Proliferation Phase/Progression Phase (3-6 weeks)

GOALS:

- 1) Pain and edema control
- 2) Improve knee AROM
- 3) Strength progression- develop functional quad control
- 4) Normalize gait pattern
- 5) Minimize shear forces on knee

ROM:

PROM/AAROM/AROM (0-MD prescribed limit)
Stationary Bike

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

MANUAL:

Continue PRN
Initiate scar mobilization

MODALITIES:

Continue PRN

Weight Bearing

- NWB x ____ wks
- TDWB x ____ wks
- PWB ____% x ____ wks
- WBAT
- Brace Locked in Ext x ____ wks

ROM

- Full ROM
- Locked full ext x ____ wks
- Locked at ____° x ____ wks
- ROM limits
- ____° to ____° x ____ wks
- ____° to ____° x ____ wks
- ____° to ____° x ____ wks

CPM

- ____° to ____° x ____ wks
- 30-70° increase 10°/d @ dir
- None

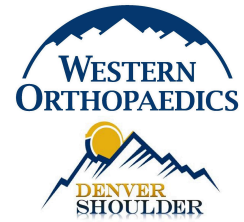
Recommended Clinical Guidelines

WB: TDWB x 1-2 weeks
75%-FWB x 3-4 weeks

Precautions:

No open chain hamstring curls
until week 8

Estimated Return to Sport:



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)³

- 1) Lower Extremity Functional Test (LEFT)¹³
- 2) Hop Tests – Single Hop, X-Hop, Triple Hop, Timed Hop $\geq 85\%$ 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}