

James Wylie, MD MHS
Knee Preservation Surgeon
The Orthopedic Specialty Hospital
Intermountain Healthcare
Office: 801-314-4900

KNEE ARTHROSCOPY WITH MENISCAL ROOT REPAIR
PHYSICAL THERAPY PROTOCOL

The intent of this protocol is to provide guidelines for progression of rehabilitation and is not intended to serve as a substitution for clinical decision-making. Progression through each phase of rehabilitation should take into account tissue-healing time frames, clinical objective findings, and MD approval to ensure structural stability. There will be variability between patients in terms of time frames and it is crucial not to progress through phases until the individual meets the appropriate requirements.

INITIAL PRECAUTIONS

Weight Bearing:

- 0-6 weeks → NWB
- 7-9 weeks → gradual progression to WBAT
- Crutch weaning and D/C is dependent walking without a limp

Initial ROM Related Restrictions:

- Flexion to 90° for 2 weeks
- Progress to ROM as tolerated thereafter, no forceful passive knee flexion
- No isolated hamstring activation
- NWB gait with knee locked in extension, can unlock the knee brace for ROM exercises

PHASE 1 – PROTECTION PHASE (1-6 weeks)

Goals:

- Optimize tissue healing and limit scar formation
- Protect surgical repair
- Reduce effusion, swelling and pain
- Restore knee ROM
- Promote normal proprioceptive and neuromuscular control

Tissue Healing

- PRICE – Protection, Rest, Ice, Compression, Elevation
- Scar massage after stitches have been removed and incision is healed

Gait

- Nonweightbearing with 2 crutches at all times

POW 1-6

- Patella, patella tendon and quadriceps tendon mobilization

- Quad activation working on terminal extension
- Open chain quad exercises until weight bearing is allowed
- Quadriceps stretching within ROM restrictions
- Gastrocnemius stretching
- Hip and Core strengthening within restrictions

PHASE 2 – WEIGHT BEARING TOLERANCE (7-9 weeks)

Criteria for advancement to Phase 2:

- Symmetric ROM to contralateral side
- Normal joint temperature
- Minimal to no joint effusion

Goals:

- Full weight bearing
- Normalize gait pattern on flat ground
- Maintain trace to no joint effusion
- Tolerate 25 minutes of standing and walking activity

Precautions

- Gradual progression of weight bearing
- **Knee flexion <40° with closed kinetic chain activity**
- Closed kinetic chain activity limited to weight bearing status

Strength, Proprioception and Neuromuscular Re-education

- Progressive balance training consistent with weight bearing status
- Calf raises
- Leg presses
- Double leg squats once full weight bearing with ambulation
- Core, hip and upper body strengthening as appropriate

Cardio

- Stationary Bike without resistance

PHASE 3 – ENDURANCE PHASE (10-15 weeks)

Criteria for Advancement to Phase 3:

- Full weight bearing
- Normalize gait pattern on flat ground
- Maintain trace to no joint effusion
- Tolerate 25 minutes of standing and walking activity

Goals:

- Build lower extremity muscular endurance

Precautions

- **Knee flexion <70° with closed kinetic chain activity**

Strengthening, Proprioception and Neuromuscular Re-education

- Double leg squats
- Static lunges
- Dynamic lunges
- 3 sets of 15 to 25 repetitions
- 3 to 4 times per week

Cardio

- Stationary bike with slowly progressive resistance at week 12
- Elliptical use and treadmill walking at week 12

PHASE 4 – STRENGTHENING PHASE (WEEKS 16-21)

Criteria for advancement to Phase 4

- Good form on Phase 3 exercises
- Progressive endurance development
- No joint effusion after phase 3 activities

Goals:

- Build lower extremity muscular strength

Precautions

- **Knee flexion <90° with closed kinetic chain activity until Week 20**

Strengthening, Proprioception and Neuromuscular Re-education

- Same as above, plus:
 - Single leg squats
 - Single leg dead-lifts
 - Step ups/downs
 - Multidirectional lunges
- 3 sets of 8 to 12 repetitions
- 3 times per week

PHASE 5 – RETURN TO SPORT (22+ Weeks)

Criteria for advancement to Phase 4

- Pass a Functional Sports Test for limb symmetry
- Y-balance test to 90% of opposite extremity
- Pain free with all strengthening and plyometric activities

Strengthening/Plyometrics

- Perform sport specific strength training and drills until patient begins team training progression
- Multi-planar power activities
- Return to sport progression programs as necessary/applicable