

# Non-Operative Knee Internal Derangement & Meniscus Treatment Protocol

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## Purpose & Philosophy

Knee internal derangement is a clinical term describing mechanical knee symptoms related to intra-articular pathology, most commonly meniscal injury. Many meniscal tears—particularly stable, degenerative, or small traumatic tears—can be successfully managed without surgery. Non-operative treatment focuses on swelling control, restoration of motion, strength, and functional stability while monitoring for mechanical symptoms.

## Appropriate Candidates

Patients with suspected or confirmed meniscal tears without true mechanical locking, no displaced bucket-handle tear, preserved knee stability, and symptoms that allow progressive rehabilitation. Degenerative meniscal tears in adults are particularly amenable to non-operative care.

## Phase 1: Symptom Control & Motion Restoration (Weeks 0–3)

Goals include reducing effusion, restoring knee range of motion, and normalizing gait. Activities that provoke deep flexion, pivoting, or twisting are limited. Early quadriceps activation, including isometrics and straight-leg raises, is emphasized. Hamstring flexibility and gentle strengthening are initiated. Pain control includes acetaminophen and ice; NSAIDs may be used selectively if appropriate.

## Phase 2: Strength Restoration & Movement Quality (Weeks 3–6)

Focus shifts to restoring quadriceps, hamstring, and hip strength. Closed-chain strengthening is emphasized with attention to knee alignment and control. Low-impact cardiovascular activity such as cycling or pool work may be introduced.

## Phase 3: Advanced Strengthening & Neuromuscular Control (Weeks 6–10)

Goals include improving dynamic stability and load tolerance. Progressive resistance training, single-leg strengthening, and neuromuscular control drills are introduced. Rotational and lateral movements are added gradually as tolerated.

## Phase 4: Return to Sport or Full Activity (Weeks 10–14+)

Gradual return to running, cutting, and sport-specific activities is initiated if symptoms permit. Progression is symptom-guided, with careful monitoring for swelling or mechanical symptoms.

### Return-to-Activity Criteria

Minimal or no knee pain or swelling; full range of motion; symmetric quadriceps and hamstring strength; ability to perform sport- or work-specific tasks without instability or mechanical symptoms.

### Indications for Surgical Evaluation

Persistent mechanical locking, recurrent effusions despite rehabilitation, failure to progress with non-operative care, or imaging demonstrating a displaced or unstable meniscal tear should prompt discussion of surgical options.

### Key Principles

Not all meniscal tears require surgery. Careful patient selection, progressive rehabilitation, and respect for symptoms are critical to successful non-operative outcomes.

### Key References

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