

IVAN WONG, MD FRCS (C)
Dip. Sports Medicine, Orthopaedic Surgeon
Specializing in Sports and Trauma Surgery
Arthroscopic Reconstruction of Shoulder, Hip, and Knee
2nd Floor, Room 2106, Camp Hill Veteran's Memorial Building
5655 Veteran's Memorial Lane, Halifax, Nova Scotia, B3H 2E1

KNEE MICROFRACTURE PROCEDURE – 0-2 weeks

This protocol is intended to provide clinicians with guidelines for the post-operative management of a patient who has undergone an arthroscopic knee microfracture repair. This protocol is not a substitute for a clinician's clinical reasoning during a patient's post-operative healing/progress. Clinical reasoning should be based on individual symptoms, physical signs, progress, and/or the presence of operative complications. If a clinician requires assistance or guidance at any stage of recovery they should email teamdrwong@innocare.ca

Restrictions 0-2 weeks Post Op

1. Ambulate with crutches at 20% weightbearing for **6 weeks**

Goals 0-2 weeks Post Op

1. Minimize pain and inflammatory response
2. Education: gait, joint protection, positioning, hygiene, restrictions, ADLs
3. Restore ROM
4. Restore Muscle activity (especially of quadriceps)

Physiotherapy management for Phase 0-2 weeks:

1. **Manual therapy (2-3x/week)**
 - PROM is required to prevent stiffness. Emphasis should be on knee extension
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2. **Hygiene/wound management**
 - Surgical dressing will be removed 2-5 days post-operatively at Dellridge clinic. Stitches and staples get removed at 2 weeks post-operatively. Ensure wound is dry and clean. Use waterproof bandages until wounds are closed.
3. **Exercise**
 - ROM
 - Bike (upright or recumbent 10-20 min/day)
 - Heel slides, seated active knee flexion
 - Prone leg hangs, passive extension (heel on table)
 - Muscle Activation
 - Isometric VMO (with NMES as needed)
 - Isometric Glute setting
 - Circulation
 - Ankle pumping
4. **Modalities**
 - Use ice or cryotherapy unit as directed for pain and inflammatory control

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KNEE MICROFRACTURE PROCEDURE PROCEDURE – 2-6 weeks

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Restrictions 2-6 weeks Post Op

1. Ambulate with crutches at 20% weightbearing for **6 weeks**

Goals 2-6 weeks Post Op

1. Minimize pain and inflammatory response
2. Education: gait, joint protection, positioning, hygiene, restrictions, ADLs
3. Restore AROM
4. Begin early strengthening of knee and hip

Physiotherapy management for Phase 2-6 weeks:

1. **Manual therapy (as needed)**
 - PROM is required to prevent stiffness. Emphasis should be on knee extension
2. **Exercise**
 - ROM (if not full flexion and extension)
 - Bike (upright or recumbent 10-20 min/day)
 - Heel slides, seated knee flexion
 - Muscle Strengthening
 - Isometric VMO, QOR, SLR (with NMES as needed), seated knee extension
 - Prone hamstring curls (light weight if able)
 - Prone hip extensions, side lye abduction and adduction
 - Stretching
 - Hamstring, glutes, quadriceps as required
 - Circulation
 - Ankle pumping
3. **Modalities**
 - Use ice or cryotherapy unit as directed for pain and inflammatory control

KNEE MICROFRACTURE PROCEDURE – 6-12+ weeks

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Goals 6-12+ weeks Post Op

1. Regain full strength of knee and hip
2. Regain balance and proprioception
3. Return to functional activities

Physiotherapy management for Phase 6-12+ weeks:

1. **Manual therapy (as needed)**
2. **Exercise**
 - Cardiovascular
 - Bike, Stairmaster and/or elliptical trainer
 - Muscle Strengthening
 - ½ → full squats
 - Leg Press
 - Standard lunge → walking lunge → lateral lunge
 - Plyometrics when full control of lower extremity
 - Side stepping with band
 - Balance/Proprioception
 - Single Leg stance, Wobble board, balance progressions
 - Stretching
 - Hamstring, glutes, quadriceps as required
3. **Modalities**
 - Use ice or cryotherapy unit as directed for pain and inflammatory control

Return to sport criteria: full AROM, strength 90% to opposite knee (based on dynamometer testing), proper motor patterns with high speed plyometrics