

## Rehabilitation Protocol: Microfracture of the Femoral Condyle

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Date of Surgery: \_\_\_\_\_

### Phase I (Weeks 0-6 weeks)

- **Weightbearing:** Using crutches:
  - Weeks 0-2 = non weightbearing
  - Weeks 3-4 = touchdown weightbearing
  - Weeks 5-6 = weightbearing as tolerated
- **Range of Motion** – Continuous Passive Motion (CPM) Machine for 6-8 hours per day for 6-8 weeks
  - Set CPM to 1 cycle per minute – starting at level of flexion that is comfortable
  - Advance 10° per day until full flexion is achieved
  - Passive Range of Motion and stretching under guidance of PT
- **Therapeutic Exercises**
  - Quadriceps/Hamstring isometrics
  - Straight leg raises
  - Heel slides
  - Four way leg lifts in standing with brace on for balance and hip strength
  - Patellar mobilizations
  - Begin pool activity at the start of week 5. Exercises may include gait drills (forward walk, march walk, skate step, step and balance) with depth of water at the level of the axilla. Deep water running, vertical kicking or biking can also be included.
- Cardiovascular exercise
  - Upper body circuit training or upper body ergometer
- Progression Criteria to Advance to Phase II
  - 6 weeks post-op
  - No effusion
  - Full knee extension

### Phase II (Once criteria in Phase 1 are met)

- **Range of Motion** – Advance to full/painless ROM
- **Therapeutic Exercises**
  - Non impact balance and proprioceptive drills
  - Stationary bike
  - Gait Drills
  - Hip and core strengthening
  - Stretching for patient specific muscle imbalances
  - Quad strengthening – closed chain exercise short of 60 degrees knee flexion
  - Continue pool program – alternating days with land program
- **Cardiovascular Exercise**
  - Non-impact endurance training; stationary bike, Nordic track, swimming, deep water run, cross trainer
- **Progression Criteria to Advance to Phase III**
  - Normal gait on all surfaces
  - Full ROM
  - No effusion
  - Ability to carry out functional movement without unloading affected leg or pain, while demonstrating good control

**Phase III (begin after meeting Phase II criteria, about 3 months)**

- **Suggested Therapeutic Exercises**

- Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to the same foot
- Movement control exercises beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities
- Sport/work specific balance and proprioceptive drills
- Hip and core strengthening
- Stretching for patient specific muscle imbalances
- Cardiovascular
  - Replicate sport or work specific energy demands
- Return to Sport/Work Criteria
  - Dynamic neuromuscular control with multi-plane activities, without pain or swelling

**Comments:**

**Frequency:** \_\_\_\_ times per week

**Duration:** \_\_\_\_\_ weeks

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_