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## **Microfracture for Articular Cartilage Lesions**

### **Post-op Program:**

#### **POD 1**

1. Ankle pumps – 20-25 per hour
2. Active flexion to 90 as tolerated
3. Gait with crutches. Strict **NWB**.
4. Patellar mobilizations
5. Polar care/ cryotherapy
6. Dressing change
7. Quad sets
8. CPM – 6 hours per day
9. Encourage upper extremity strengthening for overall conditioning

#### **POW 1-6**

1. Continue as above
2. Start SLR's: start standing, then sitting, then supine
3. May use e-stim to promote quad recruitment
4. Continue active flexion and encourage full extension
5. Progress ROM to full
6. Gait training with assistive device - **NWB**
7. Start the following open chain exercises
  - a. Sidelying hip abduction and adduction
  - b. Sitting hip flexion
  - c. Ankle theraband
  - d. Standing hamstring curls to tolerance
8. Stationary bike with low resistance

#### **POW 6-12**

1. Continue as above
2. Begin weight bearing. Progress from PWB to WBAT

3. Aquatic therapy may start at 6 weeks for LE strengthening
4. Standing terminal knee extension with theraband
5. May increase resistance on stationary bike at 8 weeks

### **POW 12-16**

1. Begin closed chain knee exercises: ENCOURAGE PROPER TECHNIQUE AT ALL TIMES.
  - a. Single leg stance: level to unlevel surfaces
  - b. Therakicks: progress resistance, speed, arc of motion
  - c. Walking forward, retro, and sidestepping
  - d. Standing calf raises, wobble board
  - e. Wall slides
  - f. Leg press with very light weights at 12 weeks
  - g. Stationary bike
2. Continue modalities
3. Encourage upper extremity strengthening for overall conditioning
4. Continue modalities

### **POW 16-20**

1. Continue as above
2. Progress exercises for building strength and endurance
  - 4-6 sets of 15-20 reps
  - progress from double to single leg and concentric to eccentric
  - emphasis on closed chain activities only
  - a. leg press
  - b. squats
  - c. lunges (front/side/back)
  - d. step-ups
  - e. leg curls
  - f. hip strengthening
  - g. resisted walking
3. Exercises for balance and proprioception
  - progress from local to whole body
  - a. mini-tramp
  - b. Sport cord
  - c. Slide board
  - d. Swiss ball
4. Exercises for endurance
  - a. Bike

- b. Stairmaster
- c. Elliptical trainer
- d. Treadmill walking
- e. Aquatic exercise

### **POW 20-return to sport**

1. Progress jump roping to line jumps, then box jumps, and then distance jumps
2. Begin sport specific drills
3. Progress speed and intensity of above activities

### **Return to Athletics Criteria**

1. Satisfactory clinical exam
2. <10% isokinetic strength deficit (Leg Press)
3. Completion of sport replication activity
4. Single leg hop test