OSTEochondritis Dissecans (OCD) 
Retrograde Drilling Protocol

This protocol is a general outline. “As tolerated” refers to no increased sharp pain, swelling, or other undesirable factors. If any of these occur, decrease activity level and ice. Progression and return to sport may vary between individual patients, and will be guided by your provider’s team (physician, physician assistant, athletic trainer, and therapist) input and appropriate testing.

PHASE I: WEEKS 0-4

Weight-bearing:
- Weight-bearing as tolerated (WBAT) with crutches
- Touchdown weight-bearing x 4 weeks

Brace:
- No brace

Range of Motion (ROM):
- Progress as tolerated
- Maintaining full knee extension

Therapeutic Exercises:
- Strengthening/Neuromuscular training:
  - Quad, glute, hamstring sets, Open chain hip strengthening
  - Core strengthening

Manual Therapy and Modalities:
- Scar, soft tissue, and patellar mobilizations
- Cryotherapy (ice), compression, e-stim

Stationary Bike:
- Begin immediately if WBAT
- Begin postop week 4 if TTWB
- Begin at postop week 6 if NWB

Progression Criteria:
- Full passive knee extension
- Minimal joint effusion
- Appropriate progression of ambulation based on restrictions

PHASE II: WEEKS 4-8

Weight-bearing:
- Follow Phase I restrictions

Range of Motion (ROM):
- Progress to full ROM

Therapeutic Exercises:
- Gait & balance training following weight bearing restrictions
- Eccentric quad strengthening
- Hip/glute strengthening (4-way SLR, band walks, step ups, step downs, bridges, etc.)
- Core strengthening
- Stationary bike

Manual Therapy and Modalities:
- Scar, soft tissue, and patellar mobilizations
• Cryotherapy, compression, e-stim as needed

Progression Criteria:
• Knee ROM 0°-125°
• Minimal effusion
• No pain
• Good quad strength
• No limp

PHASE III: WEEKS 8-12

Weight bearing:
• Full weight bearing

Range of Motion (ROM):
• Full ROM

Manual Therapy and Modalities:
• Scar, soft tissue, and patellar mobilizations
• Cryotherapy and compression as needed

Therapeutic Exercises:
• Progress ROM and flexibility to full
• Begin light impact activities
• Double leg plyometric progressing to single leg
• Closed Kinetic Chain (CKC) multi-plane activities
• Continue hip and core strengthening
• Continue gait and balance training
• Stationary bike

Progression Criteria
• Full ROM
• No pain, effusion or limp
• Good strength

PHASE IV: RETURN TO SPORT

Therapeutic Exercises:
• Advance impact activities
• Continue with single leg strengthening & eccentric quad control
• Box Drill - walk→jog→sprint progressing 4 cones from 5 yards apart to 10, 20 then 40 yards apart. Clockwise/counter-clockwise
  • This can progress to more sport specific skills (i.e. dribbling basketball, kicking soccer ball)
• Specific return to sport protocols may be found on our website under “Home Exercise Programs” with 14 sports that include sport specific skills and drills