JEFFREY HARRISON, MD
Orthopedic Surgeon • Knee and Shoulder Specialist

OSTEOCHONDRITIS DISSECANS (OCD) ORIF PHYSICAL THERAPY PROTOCOL

The intent of this protocol is to provide guidelines for progression of rehabilitation and is not intended to serve as a substitution for clinical decision-making. Progression through each phase of rehabilitation should consider tissue-healing time frames, clinical objective findings, and MD approval to ensure structural stability. There will be variability between patients in terms of time frames. Please reach out to Dr. Harrison with concerns or questions.

Knee Post-Surgical Instructions:

- Follow-up appointment with Dr. Harrison 6-10 days after surgery
- Shower 2 days after surgery (remove dressing, wash incision with soap and water)
- Do not soak in water until the incision is completely healed (minimum 2 weeks)
- Take medication as needed for pain management
- Ice 20 minutes every 1-2 hours
- Wear compression socks on both legs until follow-up appointment
- Wear brace (if given after surgery) all the time besides when changing clothes or showering
- Start post op exercises day of surgery
- Call the physical therapy office of your choice and schedule an appointment for physical therapy
- Schedule the following post operative follow-up appointments:

  Post op week 1 Post op week 4 Post op week 10

Please call our office with any questions or concerns, including redness, draining of the incisions or fever

Weight Bearing Progression:

- 0-30 days→ Patient is placed in a brace and full NWB with crutches
- 4-6 weeks→ Wean from crutches when able to walk without a limp
- 6 weeks→ Full weight bearing without brace with good quad control and normal gait pattern
- If braced, it may be removed at night to sleep after 10 days

Intermountain Orthopedics and Sports Medicine McKay Dee
3895 Harrison Blvd. Ogden, UT 84403
PH: (801) 387-7678

PHASE 1 – PROTECTION PHASE (post-op 1-4 weeks)

Week 1-4:

- Restore knee ROM 0-135 and regain terminal extension. If in brace, you may remove to do ROM and phase 1 exercises
- Reduce effusion, swelling and pain
- Patella, patella tendon and quadriceps tendon mobilization
- Quad activation working on terminal extension
- Quad/Hamstring/Glute sets
- Straight leg raises without a lag,
- Short & Long Arc Quads, Calf raises, mini squats, lateral step-ups, etc.
- Gastrocnemius stretching weight bearing
- Hip, Glute, Upper Extremity, and Core strengthening
- NMES if indicated
- Gait training
- Stationary biking for ROM 5-15 minutes

PHASE 2 – REGAIN FULL ROM AND PROGRESSIVE STRENGHTENING (post-op 4-8 weeks)

Week 4-8:

- Full weight bearing and normal gait (6 weeks)
- Regain full symmetrical ROM
- Stationary biking
- Progressive balance, strength, proprioception, and neuromuscular training
- Step-ups, leg press, double leg squats for example
- Core, hip, and upper body strengthening as appropriate

Precautions:

- Closed kinetic chain activity preferred
- No cutting/pivoting/plyometrics
- Monitor edema with strengthening and CV exercise
- Expectation is patient able to tolerate 20 minutes TM walking or biking without increased effusion

PHASE 3 – PROGRESSIVE STRENGTHENING (post-op 8-12 weeks)

Week 8-12**:**

- Build lower extremity strength, endurance, and balance.
- Transition to strengthening program at gym or at home
- Double leg squats, leg press, static lunges, dynamic lunges, balance training
- Core, hip, and upper body strengthening as appropriate
- Stationary bike, elliptical machine, treadmill, easy outdoor walking & hiking
- Quad strength 80-85% limb symmetry at 12 weeks

Precautions:

- No cutting/pivoting activities

PHASE 4 – RETURN TO TRAINING (post-op Months 3 to 6)

A team approach is used in returning an athlete to sport. Dr. Harrison, the physical therapists, the athletic trainers, and coaches will work together on preparing the patient to return to their specific sport. The below activities will vary depending on the patient's clinical state and the patient's goals and specific athletic needs. Preservation and protection of the patient's knee integrity is the number one priority.

Month 3-5:

1. Goals:
    a. Muscle Girths within 2-3 cm
    b. Full ROM (140)
    c. Plyo Progression with no pain/problems
    d. Complete Return to Running / Sprinting Progression
2. Activities:
    a. Introduce / Complete Micro Plyo → Plyometric Progression
    b. Advanced Gait / Sprinting mechanics
    c. Advanced Neurocognitive Activities
    d. Sports Specific Controlled Skill Movements
3. Benchmarks:
    a. Y Balance: expect PL/PM measures to be within 4 cm prior to initiating any plyometrics, jumping, or hopping.
    b. IPRRS (Psychological Readiness for Return to Sport) Questionnaire
    c. IKDC Questionnaire on knee function
    d. Hop Test:
        i. Within 90% symmetry SL Triple Cross over hop for Distance
4. Criteria to Progress to Next Stage:
    a. Single Leg Jump Test:
        i. Within 90% symmetry SL Static Hop for Distance
    b. USTART: pass Double leg Jump Competency
    c. Force Plate:
        i. symmetry of 90% strength (Rel. Peak Force)
        ii. minimum of 90% previous best strength

Month 4-6:

1. Goals:
    a. Eliminate deficiencies / modifications to move to full training as able
    b. Training goals to meet full RTS criteria
2. Activities:
    a. Agility
    b. Advanced Plyometrics
    c. Eccentric Hamstrings
    d. Deficit work as needed
    e. Progressive Sport Specific Controlled Skill Movements

3. Criteria to Progress to Next Stage of Sport Specific Training:
    a. Y Balance: <4cm difference in all planes
    b. Girth Measures within 2cms at each site
    c. Force Plate Testing*: equivalent to demonstrating
        i. symmetry of 90% strength (Rel. Peak Force)
        ii. minimum of 90% previous best strength
        iii. minimum of 90% symmetry in power
        iv. minimum of 90% previous best strength
    d. Pass Assessment of Drop Jump Test –functional landing mechanics
    e. Physician and Rehab Team Clearance

Month 6-9:

1. Goals:
    a. Build back to a robust "pre-season" training block.
    b. Continue to improve fundamental sport skills
2. Force Plate Testing*: equivalent to demonstrating
        i. symmetry of 92% strength (Rel. Peak Force)
        ii. minimum of 92% previous best strength
        iii. minimum of 92% symmetry in power
        iv. minimum of 92% previous best strength
    b. Maintain all criteria

Return to Training:

1. Restoration of Full Volume and Intensity of Training.
2. Accumulate a load equivalent to 50% of typical Pre-Season volume

Clearance determined by Dr. Harrison, Rehab Team, and Coaches that the athlete is ready to return to competition.

Surgery - Rehab - Return to Train - Return to Sport - Return to Competition Progression (6 – 9 Months)