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**Post-operative Rehabilitation Protocol**  
**Cartilage or OCD repair / OATS / Microfracture**

Range of Motion: CPM, or knee flexion 200 times/day

50% weight bearing for 5 weeks post op

Use of crutches for 5 weeks post op

Pain/edema reduction

Enhance quad recruitment

0-2 weeks post op

- Range of motion (CPM or manual)
- Pain/edema control
- Quad recruitment with Time Modulated AC (also known as Russian Stim)
- Quad sets/hamstring co-contractions at multiple angles 10x10, 2-3 times daily
- SLR in brace at 0° until quad can maintain knee locked
- Heel slides in brace
- Patella mobilizations if necessary
- Obtain full extension if lacking

2 weeks post op

- Continue as above
- Aquatic therapy—after post op visit with doctor, perform functional ROM in waist deep water or deeper, forward and retro-walking, marching, lateral stepping
- Stationary bike with seat high; lower to normal seat height as tolerated
- Leg press with maximum 50% BW
- Leg extensions within ROM restrictions, use high volume and light weight
- Leg curls within ROM restrictions, use high volume and light weight

5 weeks post op

- Full WB
- No pivoting, twisting, hopping, jumping, running
- Encourage full ROM as tolerated
- Normalize gait mechanics
- Progress PRE's open/closed chain as tolerated
- Isokinetic exercises 180, 150, 120, 90, 60°/sec, 8-10 reps up and down each speed
- Treadmill forward and retro walking
- Cable column exercises
- Single leg stands for proprioception
- Cardiovascular equipment of choice

- Slide board—start with short distance and increase as tolerated
- Be aware of PTF signs and symptoms and manage accordingly

8 weeks post op

- Continue as above
- Full ROM
- All exercises on affected leg only
- Increase PRE's for strength, high intensity to low volume
- Single leg squats

10 weeks post op

- Continue as above
- Plyometrics—with both feet, and move to single leg ASAP
- Assess light jogging on treadmill

12 weeks post op

- Continue as tolerated
- Sport specific drills
- Plyometrics for speed and power
- Work quad to within 15% or less difference