

Orthopedic Surgery • Sports Medicine
Neil Kumar, MD

Hip Arthroscopy with CAM resection/Labral Repair Protocol

“As tolerated” should be understood to “perform with safety” for the reconstruction/repair. Pain, limp, swelling, or other undesirable factors are indicators that you are doing too much too soon. If any of these should occur, decrease your activity level, elevate the leg, and ice your knee.

Ice should be applied to the knee for 15 to 20 minutes following each exercise, therapy, or training session. While your knee remains swollen, icing should also be done separate from exercise sessions at least three times per day.

All times and exercises are to serve as guidelines only. Progression through the protocol should be based upon criteria as opposed to dates listed and will vary depending on each individual patient. Progress should be agreed upon by the patient and his/her team of providers.

Pre-Operative

- Brace – As directed by your doctor
- Weight Bearing – Full, use crutches as necessary
- ROM (range of motion) – Full, no restrictions
- Therapeutic Exercise - Learn exercises for post op regimen
 - Calf stretching
 - Quad sets
 - Four-way straight leg raises (SLR)
 - Heel slides
- Modalities - Cryotherapy (Ice) six to eight times per for 15 to 20 minutes each time

- **Goals for Surgery**
 - Minimal to no swelling
 - Full ROM
 - Normal strength

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Post-Operative Phase I: Weeks 0 to 4

- Brace: 0° to 90°
- Weight Bearing
 - Week 0 – 2: Toe-touch weightbearing with bilateral (2) crutches
 - Week 2 – 4: 50% partial weightbearing with bilateral (2) crutches
- ROM – maintain within pain-free zone
 - Flexion 90°
 - Extension 0°
 - Abduction 30°
 - Internal rotation
 - In 90° flexion - 0°
 - In supine – within pain-free zone
 - External rotation
 - In 90° flexion - 30°
 - In supine – 20°
- Therapeutic Exercise
 - Hamstring curls
 - Glute sets
 - Ankle pumps
 - Quad sets/Supine straight leg raises – abduction, adduction, extension, flexion 90°
 - Pelvic tilts
 - Double leg bridges
 - Isometric abduction
 - Supine marching to 90°
- Modalities
 - Scar and soft tissue massages
 - NMES (neuromuscular electrical stimulation): quad, paraspinals, hamstring
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Proprioception
 - Seated BAPS board / stability ball
- Cardio
 - UBE (arm bike)
 - Stationary bike (<90° degree hip flexion) without resistance
- **Goals for Phase II:**
 - Pain-free hip internal rotation, extension, abduction
 - Hip flexion to 90°

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Post-Operative Phase II: Weeks 4 – 6

- Weight Bearing – weight bear as tolerated with bilateral (2) crutches
- ROM - Full active and passive
- Therapeutic Exercises – Continue Phase I exercises
 - Clamshells
 - Superman in quadruped
 - Mini squats, wall squats, and leg press to 45⁰ hip flexion
 - Single leg bridges
- Modalities
 - Scar and soft tissue massage, patella mobilizations
 - NMES (neuromuscular electrical stimulation) for quadriceps atrophy
 - HVPC (high volt pulsed current) for effusion (swelling) reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Proprioception
 - Seated BAPS board
 - Standing weight shifts
 - Unstable surfaces
 - Joint repositioning
- Cardio
 - UBE
 - Stationary bike with increased flexion motion
 - Initiate elliptical, pool walking, and swimming
- **Goals for Phase III:**
 - Normal gait
 - Hip ROM 0°- 105°
 - Hip flexion strength >60% of non-involved side
 - Hip abduction/extension/internal+external rotation strength >70% of non-involved side

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Post-Operative Phase III: Weeks 6 – 12

- Weight Bearing - weight bear as tolerated without crutches
- ROM - Full active and passive
- Therapeutic Exercises – Continue Phase II exercises
 - Increase double squats with increasing hip flexion tolerance
 - Initiate single leg squats
 - Side stepping with sport cord
 - Hamstring lifts
 - Step ups
 - Lunges: single plane with progression to triplanar
- Proprioception
 - Perturbation training (balance against resistance)
 - Unstable surfaces
 - Joint repositioning
- Cardio
 - UBE
 - Stationary bike with increasing resistance
 - Treadmill ambulation
 - Week 8: Pool running
- **Goals for Phase IV:**
 - Normal gait
 - Full ROM
 - Hip flexion strength >70% of non-involved side
 - Hip abduction/extension/internal+external rotation strength >80% of non-involved side

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Post-Operative Phase IV: Weeks 12 – 16

- Therapeutic Exercises – Progress Phase III exercise strength and endurance
- Proprioception – Progress Phase III tolerance
- Cardio
 - UBE
 - Stationary bike with increasing resistance
 - Pool running
 - Swimming
 - Treadmill running
- Plyometrics
 - Double and single limb plyometrics
 - Jump training
 - Agility training
- **Goals for Phase V:**
 - Pain-free plyometrics and light activity

Post-Operative Phase V: Weeks 16 – 24

Transitional Therapy for return to sport activities during this phase with progression based upon patient progress through earlier protocol.

In addition to ongoing strength, balance, agility, and cardio conditioning, initiate sport specific plyometric activities as tolerated such as:

Soccer/Football: Two foot ankle hop, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double arm alternate leg bound, and cycled split squat jump

Basketball/Volleyball: Two foot ankle hop, double-leg hop, squat jump, double-leg vertical jump, single-leg hop, single-leg vertical jump, power skip, backwards skip, double-arm alternate-leg bound, alternate leg push off box drill, and side-to-side push off box drill

Baseball/Softball/Overhead throwing sports: Two foot ankle hops, double-leg hop, front barrier hop, lateral barrier hop, single-leg hop, power skip, backward skip, double arm alternate leg bound, cycled split squat jump, and return to throwing program



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Return to Sports

Return to sports is based on provider team (physician, physician assistant, athletic trainer, therapist) input. Transitional Therapy should continue during this time as the patient prepares to return to sports and athletic activities.

Clearance for return to full sports activities will be determined with input from the entire health team. When cleared by the provider, patients should return to their sports with a *4-week progression plan* as determined by the health team and coaches. This allows the athlete to acclimate to the mental and physical demands of sports and athletics in safe manner.