



ORTHOPEDICS &
SPORTS MEDICINE
BAYCARE CLINIC®

Dr. John Awowale, MD

Hip Arthroscopy

General Guidelines:

- Despite the minimally invasive nature of the hip arthroscopy, significant work was performed inside the hip joint. Time is required for the repaired structures to heal.
- Systematic approach to rehabilitation (generally under the guidance of a physical therapist) is critical to ensuring an optimal outcome.
- Each patient's recovery is highly individual, and use of the therapy protocol should be customized to the patient.

Rehabilitation:

- Patient should meet with the physical therapist prior to the surgery for a functional assessment and to review the protocol
- Formal physical therapy should start within 1 to 3 days after surgery
- Progression through therapy phases is based on healing times, pain, and function dependent and is not exclusively time dependent.
- Pushing the rehabilitation too quickly may aggravate the hip and delay recovery.

Precautions:

- Crutches and partial weight bearing to protect the repair are based on each specific procedure. Refer to specific instructions from Dr. Awowale regarding weight bearing restrictions.
- Avoid excessive external rotation and flexion which stresses the repair.
- Avoid early active hip flexion that can lead to hip flexor tendonitis.
- Avoid advancing too rapidly through the therapy protocol to prevent flare-ups.
- No driving until permission from the surgeon (usually around 4 weeks).
- Medications help reduce risk of abnormal bone formation (heterotopic ossification) and blood clot (deep venous thrombosis).



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Phase 1- Early Protective Phase – Weeks 0 - 3

Goals for Phase 1

- Recover from surgery
- Protect repair
- Reduce post-operative pain, swelling, and inflammation
- Crutch training to unload hip, while normalizing gait
- Prevent muscular inhibition
- Encourage mobility
- Promote wound healing (sutures out in 10 to 14 days)

Criteria for progression to Phase 2

- Minimal pain with Phase 1 exercises
- Minimal limitations in range of motion (90° of hip flexion with minimal pain)
- Normalized heel to toe gait with two crutches and partial weight-bearing

Weight bearing and gait training

- Protected weight-bearing (50% of body weight)
 - Use two crutches to limit weight, while stepping on the operative leg
 - Maintain foot flat on the ground (reduces force in the hip joint)

PROM

- Hip PROM within post-op restrictions
 - No external rotation > neutral
 - No hip flexion > 90°
 - Other precautions depend on the procedure performed

AAROM

- Standard stationary bike
 - High seat to prevent hip flexion > 90°
 - No resistance

AROM

- Standing exercises (keep knee straight)
 - Hip abduction and adduction without resistance
 - Hip flexion and extension without resistance

Manual Therapy

- Grades I-II hip joint mobilizations as needed
- Hip Circumduction mobilization – Grade I-II
- Scar mobilization as needed

Strengthening

- Hip isometrics (glutes; abductor and adductor)
- Quads and hamstrings sets
- Active-assisted heel slides
- Pelvic tilts
- Double legged supine bridge
- Seated knee extension
- Prone knee flexion
- Standing double heel raises (keep knee straight)

Modalities

- Modalities to reduce swelling and inflammation



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Phase 2 - Initial Strengthening – Weeks 4 to 6

Goals for Phase 2

- Protect repair
- Increase range of motion
- Transition from crutches
- Normalize gait
- Progressively increase muscle strength

Criteria for progression to Phase 3

- Minimal pain with Phase 2 exercises
- 105° of hip flexion and 20° of external rotation with minimal pain
- Pain free/normal gait pattern
- Hip flexion strength > 60% of the opposite side
- Hip abduction/adduction strength and internal/external rotation strength > 70% of the opposite side

Weight bearing and gait training

- Transition from crutches
 - Start with single crutch on the opposite side from the surgery to unload the operative hip during gait
 - May transition to no crutches, once comfortable and no significant gait deviations
 - May continue to need crutches, when planning to walk a distance or being on the feet for a longer time.

AROM

- Progress with hip range of motion
 - No external rotation > 20°
 - No hip flexion > 105°
 - Prone hip rotations

Manual Therapy

- Continue Grades I-II hip joint mobilizations
- Avoid long axis distraction of the hip
- Hip Circumduction mobilization – Grade I-II
- Soft tissue massage at the portal sites
- Deep tissue mobilization as needed
- Pelvic and lumbar spine joint mobilizations as needed
- Desensitize irritable nerve distributions as needed

Strengthening

- Progress core strengthening
- Hip strengthening
 - Hip flexor activation (careful with active/resisted hip flexion to prevent inflammation)
 - Clamshells
 - Single leg bridges
 - Leg press (minimal resistance)
 - Weight-shifting
 - 1/4 mini squats
 - Quadruped superman
 - Standing exercises - abduction and adduction with low resistance; flexion and extension with low resistance
 - Standard stationary bike - increase duration and resistance as tolerated

Aquatics

- Pool therapy is recommended after the portals are healed

Modalities

- Utilize cryotherapy modalities as needed



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Phase 3 - Strengthening - Weeks 7 to 10

Goals for Phase 3

- Protect repair
- Normalize motion and strength
- Normalize gait
- Improve endurance and conditioning
- Improve neuromuscular control, balance, and proprioception

Criteria for progression to Phase 4

- Symmetrical range of motion
- Hip flexion strength > 70% of the opposite side
- Hip abduction/adduction and internal/external rotation strength > 80% of the opposite side
- Cardiovascular fitness returning to pre-operative level

AROM

- Normalize hip range of motion
 - No restrictions
 - Symmetry with unaffected side

Manual Therapy

- Stiffness dominant hip joint mobilizations (Grades III-IV) as needed
- Soft tissue massage at the portal sites as needed
- Deep tissue mobilization as needed

Strengthening

- Increase resistance with active exercises
- Clamshells with Theraband
- Side lying planks
- Physioball hamstrings
- Side-stepping with resistance
- Lunges

Neuromuscular

- Core stabilization
- Single leg balance
- Side steps over cups
- Step ups with eccentric lowering
- BOSU squats

Aquatics

- Continue pool therapy - increase speed, duration, and decrease depth

Cardiovascular

- Standard stationary bike - continue to increase duration and resistance; lower seat to allow increasing hip flexion
- Elliptical machine with minimal resistance
- May use treadmill walking program

Modalities

- Utilize cryotherapy modalities as needed



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Phase 4 - Strength and Plyometric Phase - Weeks 10 - 14

Goals for Phase 4

- Normalize function
- Prepare return to activity
- Sports specific training

Manual Therapy

- As indicated

Strengthening

- Continue Phase 3 exercises with progressive increase in intensity or resistance
 - Examples:
 - Step-ups/downs
 - Progress to multi-directional stepping patterns
 - Progress stable to unstable surfaces
 - Lunges
 - Progress to multi-directional lunging patterns
 - Progress stable to unstable surfaces
 - SL squats
 - SL RDL's
 - Band walking
 - Progression of glute bridging
 - Continue with progressive increasing of resistance
 - Continue with core strengthening exercises with progressive increase in intensity

Proprioception

- Advance proprioceptive training

Agility

- Sport specific agility drills

Advanced gait re-training

- Initiate return-to-running progression
 - Utilize Alter-G treadmill or underwater treadmill if available

Plyometrics

- Start introducing low impact plyometrics

Cardiovascular

- Increase resistance and duration on bike and elliptical

Aquatics

- Pool running
- Swimming as tolerated



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Phase 5 - Return to Function Phase - 4 – 6 months

Goals for Phase 5

- Minimize pain and inflammation
- Maintain full hip PROM and AROM
- Restore muscle strength and endurance
- Restore neuromuscular control
- Safe and effective return to previous level of function for sport or activity

Criteria for Return-to-Sport and Activity

- Full, pain free hip PROM and AROM
- Hip strength \geq 90% of the uninvolved side
- Lower extremity strength, power, and endurance \geq 90% of the uninvolved side
- Full speed sport-specific drills without pain or compensation
- Successful completion of return- to-sport testing
- Lower Extremity Functional Scale score \geq 70/80

Stretching

- Continue stretching of all hip musculature

Manual Therapy

- Continue stiffness dominant hip joint mobilization (Grade 3-4) as needed
- Continue other hip and lumbosacral manual therapy techniques as needed

Strengthening

- Continue advancement of previous strengthening exercises

Neuromuscular control

- Continue to incorporate unstable surfaces and dynamic movement patterns with functional strengthening progression

Core stabilization

- Continue to incorporate core integrated exercises with functional strengthening progression

Advanced gait re-training

- Progress return-to-running program
- Advanced agility and plyometric drills

Sport-specific training

- Initiate sport-specific training programs
 - Interval sport programs for running, cycling, swimming, skating, throwing, golfing, etc.
 - Traditional weightlifting exercises

Activity-specific training

- Prepare body for activity or job specific duties

Modalities

- Utilize cryotherapy, thermotherapy, and electrical modalities as needed

HEP

- Establish HEP for long-term self-management