

**DR. JOHN AWOWALE
HIP ARTHROSCOPY POST-OP THERAPY PROTOCOL**

**Phase 1 – Early Protective Phase (0-4 weeks)
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Goals for Phase 1	Precautions for Phase 1	Criteria for Progression to Phase 2
<ul style="list-style-type: none"> • Protect repair • Minimize pain • Minimize swelling • Crutch use to unload hip, while normalizing gait • Prevent muscular inhibition • Encourage mobility • Promote wound healing (sutures out in 10 to 14 days) 	<ul style="list-style-type: none"> • Crutches and partial weight bearing to protect the repair. • Avoid excessive external rotation and flexion.. • Avoid early active hip flexion. • 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). 	<ul style="list-style-type: none"> • 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



Phase 1 – Early Protective Phase (0-4 weeks)

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 – Intermediate Phase (2-6 weeks)
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Goals for Phase 2	Precautions for Phase 2	Criteria for Progression to Phase 3
<ul style="list-style-type: none"> • Protect repair • Increase range of motion • Transition from crutches • Normalize gait • Progressively increase muscle strength 	<ul style="list-style-type: none"> • No external rotation >20 • No hip flexion >105 • Avoid long axis distraction of the hip • Hip flexor activation (be careful with active/resisted hip flexion to prevent inflammation) 	<ul style="list-style-type: none"> • 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
- Gradual progression of hip flexor
- Clamshells
- Single leg bridges
- Leg press (minimal resistance)
- Weight-shifting
- 1/4 mini squats



Phase 2 – Intermediate Phase (2-6 weeks)

- 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 – Intermediate Phase (6-12 weeks)
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Goals for Phase 3	Precautions for Phase 3	Criteria for Progression to Phase 4
<ul style="list-style-type: none"> • Work on regaining normal gait • Improve AROM • Incorporate more muscle strengthening • Protect repair • Normalize motion and strength • Normalize gait • Improve endurance and conditioning • Improve neuromuscular control, balance, and proprioception 	<ul style="list-style-type: none"> • Avoid progressing through joint pain • Avoid terminal quad stretching • Proceed with caution with deep hip flexion activities 	<ul style="list-style-type: none"> • 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

Brace

- Wean off brace as tolerated

Weight Bearing

- Full

PROM

- Gradually progress to full ROM, avoid terminal quad stretching

AROM

- Gradually progress to full ROM
- Be cautious with deep hip flexion to include knee bends, lunges, and squats

Manual Therapy

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

Strengthening/Core

- Increase resistance with active exercises
- Clamshells with TheraBand
- Side lying planks
- Physio ball hamstrings
- Side-stepping with resistance
- Lunges

Gait Training

- Wean off crutches as tolerated

Aquatics

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



Phase 3 – Intermediate Phase (6-12 weeks)

Modalities

- Ice and modalities to reduce pain and inflammation

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

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Phase 4 – Advanced Phase (12-16 weeks)

Goals for Phase 4	Precautions for Phase 4	Criteria for Progression to Phase 5
<ul style="list-style-type: none"> • Full weight bearing • Full knee ROM • Progressive stretching and strengthening of muscles • Prepare return to activity 	<ul style="list-style-type: none"> • Do no push through joint pain to progress • Perform functional testing (strength and balance activities) prior to return to impact activities - >80% lower extremity strength compared to uninvolved side. 	<ul style="list-style-type: none"> • Tolerate low impact drills without pain or swelling. • Strength >80% side to side • Able to progress functional strengthening without pain or swelling

Brace

- Can use a neoprene sleeve or ace wrap if needed

Manual Therapy

- As needed for mobility or pain

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 and RDL's
 - Band walking
 - Progression of glute bridging
 - Continue with progressive increasing of resistance

Proprioception

- Advance proprioceptive training

Core Strengthening

- Continue with core strengthening exercises with progressive increase in intensity

Advanced Gait Re-Training

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

Aquatics

- Pool running
- Swimming as tolerated

Plyometrics

- Start introducing low impact plyometrics

Agility

- Sport specific agility drills

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

Goals for Phase 5	Precautions for Phase 5	Criteria for Return-to-Sport and Activity
<ul style="list-style-type: none"> • Minimize pain and inflammation • Maintain full hip ROM and AROM • Restore muscle strength and endurance • Restore neuromuscular control • Safe and effective return to previous level of function for sport or activity 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 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 III-IV) 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 home exercise program for long-term self-management