

Hip Arthroscopy Rehabilitation Protocol

General Guidelines:

- Limited external rotation to 20 degrees (2 weeks)
- No hyperextension past neutral (4 weeks)
- Normalize gait pattern with crutches
- Weight-bearing: foot flat touch down (50% bodyweight) for 3 weeks if labral repair or labral reconstruction, 6 weeks if cartilage micro fracture
- Continuous Passive Motion Machine
 - 4 hours/day or 2 hours if on bike stationary bike for 2 bouts of 20-30 minutes if tolerated for 2 weeks

Rehabilitation Goals:

- Seen post-op Day 1
- Seen 2x/week for first month
- Seen 2x/week for second month
- Seen 2-3x/week for third month
- Seen 1-2x/week for fourth month

Precautions following Hip Arthroscopy/FAI: (Refixation/Osteochondroplasty)

- Weight-bearing: foot flat touch down (50% bodyweight) for 3 weeks if labral repair or labral reconstruction, 6 weeks if cartilage micro fracture
- Hip flexor tendonitis
- Trochanteric bursitis
- Synovitis
- Manage scarring around portal sites
- Increase range of motion focusing on flexion, careful of external rotation, and aggressive extension

Phase 1	Time Frame (weeks)	Guidelines	Precautions
	<u>WEEKS</u> <u>0-2:</u>	<u>Manual Therapy/Range of Motion:</u> Soft Tissue Massage: <ul style="list-style-type: none"> • Light quad, hamstring, glut STM or retrograde Passive ROM: <ul style="list-style-type: none"> • Flexion as tolerated in supine • Circumduction in about 10° of hip flexion • Hip abduction in about 10° of hip flexion • Log roll: if painful in supine, perform over a foam roller • IR supine @ 90° and prone @ 0° • ER in 30-90° of hip flexion Passive ROM to be done by caregiver: <ul style="list-style-type: none"> • Circumduction in about 10° of hip flexion • Hip abduction in about 10° of hip flexion 	<u>Precautions:</u> Weight bearing: <ul style="list-style-type: none"> • 50% flat foot touch down weight bearing x 3 weeks. Make sure that their foot is on the ground demonstrating a normalized walking pattern (NO HOLDING THE HIP UP INTO HIP FLEXION) Brace/Boots: <ul style="list-style-type: none"> • Dr. Mayer: De-rotational boots taped with feet parallel while sleeping x 2 weeks CPM:

		<ul style="list-style-type: none"> • Log roll • IR supine @ 90° <p><u>Exercise Progression:</u> To begin POD 1:</p> <ul style="list-style-type: none"> • Stationary bike with no resistance: 15 minutes up to 2x per day; as tolerated • Isometrics: (2x/day) Glute, TA, quadriceps, hamstring, abduction, and adduction; as tolerated • Prone lying “Tummy time” 2+ hours per day <p>Can begin POD 8-14:</p> <ul style="list-style-type: none"> • Add Hip IR/ER isometrics (2x/day) • Initiate basic core: pelvic tilting, TVA and breathing re-education • Quadruped rocking and cat/camel • Short ROM bridging • Standing TKE, standing hamstring curls, pilates ring adduction/abduction • Standing abduction/adduction (full WB on uninvolved side only) • Heel raises @ 50% weight bearing • Butterflies and reverse clams as tolerated <p><u>Pool Programming:</u></p> <ul style="list-style-type: none"> • Not until full wound closure at 3-4 weeks post op 	<ul style="list-style-type: none"> • 4 hours/day cumulatively OR stationary bike 30 min/day without resistance <p>Sleeping:</p> <ul style="list-style-type: none"> • No restrictions on sleeping position • Sleep supine or on operative side with de-rotational booties on and taped with feet parallel. Pillow between legs if sleeping on side. • No Sleeping in CPM <p>Other:</p> <ul style="list-style-type: none"> • No hyperextension • No hip external rotation in extension (supine and prone) • Avoid anterior aggravation/hip flexor irritation • Start bandage changes the first day post-op using the dressing change kit provided. Make sure covered with tegaderm if in shower.
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Criteria For Progression (must be met before progression into Phase 2):

1. Passive hip flexion to 90 degrees without irritation/pain.
2. Pain-free prone lying > 10 minutes consecutively
3. Proper TA activation with biofeedback x 60s without tenting, doming or holding of breath
4. Single leg isometric glute activation x 10/side with only glute activated and no hamstring or low back compensation

	Time Frame (weeks)	Guidelines:	Precautions:
Phase 2	<u>WEEKS 2-6:</u>	<p><u>Manual Therapy/Range of Motion:</u> Manual Therapy:</p> <ul style="list-style-type: none"> • Anterior thigh STM or retrograde • Prone glute release as needed • Side lying ITB/lateral quad • Light incision mobility <p>Passive ROM to be done by therapist as needed:</p> <ul style="list-style-type: none"> • Flexion as tolerated in supine • Circumduction in about 10° of hip flexion • Hip abduction in about 10° of hip flexion • Log roll: if painful in supine, perform over a foam roller 	<p><u>Precautions:</u> Weight bearing:</p> <ul style="list-style-type: none"> • Weaning from crutches weeks 3-5 • Alter-g as appropriate for gait re-training <p>Brace/Boots:</p> <ul style="list-style-type: none"> • De-rotational boots are discharged at 2 weeks <p>CPM:</p> <ul style="list-style-type: none"> • Can be discharged at 2 weeks post op <p>Sleeping:</p>

		<ul style="list-style-type: none"> • IR supine @ 90° and prone @ 0° • ER in 30-90° of hip flexion • Prone IR/ER arcs of motion <p>Passive ROM to be done by caregiver: Patients may wean from caregiver-assisted ROM at weeks 5-6</p> <p><u>Exercise Progression:</u></p> <p>Weeks 2-4:</p> <ul style="list-style-type: none"> • Prone Assisted Hip Extension (PAHE) – Do not lift off of foam roller • Double leg bridge progression • Quadruped hip extension • Tall kneeling glut thruster progressions • Standing hip abduction (no side lying until 6 weeks post op) with foot slightly internally rotated • Heel raises • Stationary biking – may add light resistance <p>Weeks 4-6:</p> <ul style="list-style-type: none"> • Prone over swiss ball hip extension • Single leg glut progression as appropriate • Proximal → distal band progressions of standing hip abduction • Hip hike on step • Clamshell progressions • Stool IR/ER • Single leg balance progressions • Step up progressions: sagittal plane first • DL squat progressions • Hamstring curl: machine or ball • Supine samurai hip flexor progressions • Side plank on knees • Stretching: quads, piriformis as tolerated, hamstrings NO HIP FLEXOR < 6 WEEKS!! <p><u>Blood Flow Restriction Training:</u></p> <ul style="list-style-type: none"> • May begin on operative limb per BFR parameters when incisions are fully healed 	<ul style="list-style-type: none"> • No restrictions on sleeping position • Sleep supine or on operative side with de-rotational booties on and taped with feet parallel. Pillow between legs if sleeping on side. <p>Restrictions:</p> <ul style="list-style-type: none"> • No hyperextension until week 3 • No hip external rotation in extension (supine and prone) until week 3 • Avoid anterior aggravation/hip flexor irritation • No rotational lumbar/SIJ mobilizations or hip mobilizations • Per SHC policy, no dry needling should be performed in a patient who has had surgery < 6 weeks ago. <p><u>As appropriate, cleared to:</u></p> <ul style="list-style-type: none"> • Stationary bike with light resistance • Light walk for exercise being mindful of distance, grade and surface type • Experienced swimmers can swim with LE buoy and no flip turns
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Criteria For Progression (must be met before progression into Phase 3):

1. >75% of passive hip flexion, IR, abduction and extension relative to non-surgical side
2. Glute max prone hip extension x 10 reps/side with proper activation without compensatory patterns/muscle activation
3. Appropriate hip hinge pattern with mini squat
4. Normalized and pain-free walking pattern without AD
5. SL stance x 30 seconds/side

	Time Frame (weeks)	Guidelines:	Precautions:
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Phase 3	<p>WEEKS <u>6-12:</u></p>	<p>Manual Therapy:</p> <ul style="list-style-type: none"> • PROM as needed for full PROM • STM to all areas as appropriate including lumbar spine, hip adductors, hip flexors • Continue Incision mobility • Joint mobilizations as needed for patients lacking ROM and presenting with a capsular restriction inferior and posterior as well as prone mobilization for anterior hip mobility ONLY IF APPROPRIATE • Rotational lumbar and SIJ mobilizations may begin at weeks 6-8 <p>Exercise Progression:</p> <ul style="list-style-type: none"> • Supine FABER slides • Prone IR/ER arcs of motion • Heels elevated glute bridges • Glute thrusters: supine off box or tall kneeling with super band resistance • Sahrman Progressions/Light dead bug progressions • Forearm planks: start front plank on knees at 6 weeks and progress to full plank once 60 seconds is easy on knees with proper core activation • Leg press double to single leg progressions as tolerated (keeping in mind depth to avoid anterior hip pinching) • TRX DL to split squat progressions • Step up progressions: working into lateral and crossover planes • Lunge/split squat progressions starting with ½ depth until tolerance is developed • Monster walks starting with lateral and backwards walking • DL RDL/hip hinge progressions as appropriate form is demonstrated • Progress dead bug range as tolerated, can add band as appropriate 	<p>Weight bearing:</p> <ul style="list-style-type: none"> • Fully weight bearing without crutches <p>Precautions:</p> <ul style="list-style-type: none"> • Continue to avoid any anterior irritation/flare ups that could delay progression • Do not push through pain <p>As appropriate, cleared to:</p> <ul style="list-style-type: none"> • Outdoor biking: week 6 but no clips • Swimming without pool buoy • Elliptical: week 6 as long as the following criteria are met: <ul style="list-style-type: none"> - Meet all above criteria for initiation of phase 3 - Full pain-free hip extension - No hip flexor tendon issues/flare ups
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Criteria for Progression (must be met prior to progression into Phase 4 which includes running):

1. Full PROM in all planes relative to non-surgical side except for FABER which should be >75% (< 3 cm difference) relative to non-surgical side
2. Pain-free MMT of hip abduction (no TFL compensation), hip extension (no lumbar paraspinal or hamstring compensation), external rotator, internal rotator and adductor (no hip flexor compensation) all 5/5 bilaterally
3. Able to maintain forearm plank and side plank on toes x 60s without tenting, doming or holding of breath
4. Independent and normalized stair negotiation up and down
5. SL squat to 45 degrees of knee flexion without dynamic valgus x 15/side

	Time Frame (weeks):	Guidelines:	Precautions:
	<u>WEEKS 12-20</u>	<p><u>Manual Therapy:</u></p> <ul style="list-style-type: none"> Continue as indicated based on patient presentation, ensure full pain-free ROM in all planes <p><u>Exercise Progression:</u></p> <ul style="list-style-type: none"> Maintain Hip Stability Program, trunk, hip and lower extremity strength and flexibility program Single leg front and side plank progressions May begin return to run program ONLY WHEN all of the above criteria have been met Ladder drills: sagittal → frontal → rotational planes Introduce and progress plyometric program after pain-free return to running and ladder drills 	<p><u>Cleared for in appropriate patient:</u></p> <ul style="list-style-type: none"> Stair Climber @ 12 weeks Swimming: Breast Stroke kick @ 12 weeks Golf: Chipping and putting 12-16 weeks Light hiking being mindful of grade, surface and duration Hockey: Return to ice, no shooting 12-16 weeks
<p>Goals to be met within 12-20 weeks:</p> <ol style="list-style-type: none"> FABER < 3 cm relative to non-surgical side Normalized gait FWB x 30 min Long lever hip flexor 5/5 MMT to decrease risk of tendinopathy with return to run Pain-free incorporation of return to run progression per SHC protocol once all previous goals/criteria have been met Drop box jump without valgus to demonstrate appropriate landing form 			
	Time Frame (weeks):		
	<u>WEEKS 20+</u>	<ul style="list-style-type: none"> Continue more sport specific/patient-goal specific with continued emphasis on CKC glute/core progressions Field drills, multi-planar Must pass hip return to sports test prior to clearance to play, (typically at 24+ weeks post-op) 	<p><u>Cleared for in appropriate patient (at 20+ weeks as criteria are met):</u></p> <ul style="list-style-type: none"> More strenuous hiking Golf: driving, possibly executive/short courses Soccer/lax: ball drills and stick work Hockey: shooting
<p>Goals to be met within 20-24+weeks:</p> <ol style="list-style-type: none"> Pain-free progression of return to run progression with ability to tolerate 15 minutes of running consecutively without pain/irritation Pass hip RTS test Unrestricted return to activity 			