

HIP ARTHROSCOPY

CLINICAL PRACTICE GUIDELINE

Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. Contact Ohio State Sports Medicine at 614-293-2385 if questions arise




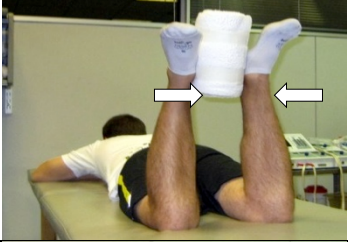



Phase I – Initial Exercise

Goals	<ul style="list-style-type: none"> • Protect integrity of repaired tissue • Restore ROM within restrictions • Diminish pain and inflammation • Prevent muscular inhibition
ROM	<ul style="list-style-type: none"> • <u>Passive hip circumduction</u> (first post-op visit until gait is normal and pain free) <ul style="list-style-type: none"> ○ 5 min clockwise/counterclockwise each at slight flexion (10 total min.) ○ 5 min clockwise/counterclockwise each at 30 degrees flexion (10 total min) • “Belly time” – lie prone BID for 20 min • Stationary bicycle with minimal to no resistance • Aquatic ambulation-emphasize neutral ambulation to avoid capsular stretch at week 3 • Standing pendulum swings • Active-assistive range in all directions • Prone prop hip flexor stretch initially and progress to half kneeling hip flexor stretch at week3 • Posterior capsule stretching-quadruped rocks
Manual Therapy	<ul style="list-style-type: none"> • Iliopsoas release
Education	<ul style="list-style-type: none"> • Use crutches and weight bearing as tolerated. <ul style="list-style-type: none"> ○ Move crutch(es) forward along with operated leg to help reduce stress on hip. ○ Use crutches 5 to 7 days after surgery and progress to full weight bearing without discomfort. • “Belly Time”- Lay on your stomach twice a day for 20 minutes each time. • 1-2 days after surgery begin with exercises (See Below). • Apply ice to front or side of hip for 15 minutes, 3-5 times per day. • You should be seeing a physical therapist by 5-7 days after surgery. • Perform gluteal squeezes throughout the day. • When sitting, try to sit with the hips at 90 degrees. Sitting with the knees closer to the chest might produce pain or pinching at the hip.
Precautions	<ul style="list-style-type: none"> • Limit prolonged standing and walking up to four weeks after surgery to avoid hip discomfort. • Avoid deep squatting or heavy lifting up to six weeks after surgery. • Avoid sleeping on the operated hip. Sleeping on your back or unaffected leg (with a pillow between the legs) will be more comfortable.
Contra-indications	<ul style="list-style-type: none"> • DO NOT move hip in direction that causes pain, irritation or “pinching” in the hip. • DO NOT push through pain. • DO NOT perform sit-ups or sit-up like motion. • DO NOT perform the elliptical machine or impact activities, such as running, without clearance from your physician or physical therapist. • DO NOT perform straight leg raises



Starting 1-2 Days After Surgery




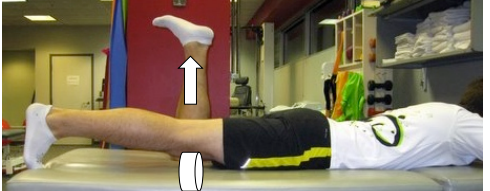
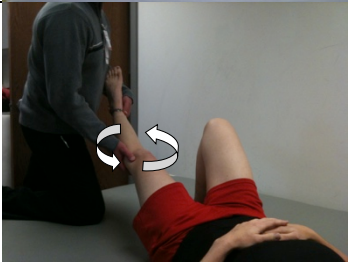

- All exercises should be performed pain free. If painful, contact your physician or physical therapist.
- Please perform exercises 5 days per week that you are not in physical therapy.
- Perform the following exercises until you are off crutches and walking pain-free.

Isometric Gluteal Exercises	Squeeze buttock muscles. Hold for 5 seconds, repeat 20 times, and perform 3 times per day.	
Isometric Quadriceps	Lying on back or sitting up with legs straight out in front, straighten knee down into supporting surface. Hold for 5 seconds, repeat 20 times, and perform each exercise 3 times per day.	
Isometric Hamstrings	Bend knee and dig heel into the floor or surface. Hold for 5 seconds, repeat 20 times, and perform each exercise 3 times per day.	
Isometric External Rotation	During "belly time," bend both knees up with pillow or rolled towel between feet and squeeze feet together. Hold for 5 seconds, repeat 20 times, and perform each exercise 3 times per day.	
Isometric Internal Rotation	During "belly time," bend both knees up, with resistance band or belt placed around ankles. Begin to separate feet. Belt or band will provide resistance and not allow for movement to occur. Hold for 5 seconds, repeat 20 times, and perform each exercise 3 times per day.	
Ankle Pumps	Bring toes up and then point them down. Repeat 30 times, 3 times per day.	
Self Standing Hip Circumduction	Standing supported on non-operative leg on stool or stool (4-8 inches off the ground) allow opposite leg to remain off stool and slowly move leg in circular, pendulum type motion. Perform 20 circles clockwise and counterclockwise each, 3 times per day.	



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Cat and Camel	Positioned on all fours, lower stomach and roll hips forward then roll hips backward and arch back up. Repeat 10 times, 3 times per day.	
Abdominal Isometrics	Draw in stomach down towards spine and up towards the lower ribs. Be sure that there is no movement occurring through the hips with this particular exercise. Hold for 5 seconds; repeat 10 times, 3 times per day.	
Posterior Pelvic Tilts	Draw in stomach as instructed above and roll hips back until lower back is flat on supporting surface. Hold for 5 seconds; repeat 10 times, 3 times per day.	
Terminal Knee Extension in Prone	During "belly time," position foot on toes, as shown in picture, or use a rolled up towel under the shin (see picture for placement) and straighten knee. Hold for 5 seconds; repeat 10 times, 3 times per day.	
Passive Hip Circumduction	Lie on your back and have partner support leg with knee straight and hip slightly bent, AVOID ANY PINCHING, and move leg in circles, both clockwise and counterclockwise. Perform each direction for 5 minutes, 2 times per day for 20 minutes total.	
Soft Tissue Mobilization	Proximal and distal ITB. Perform for 8-10 minutes.	



1 Week After Surgery

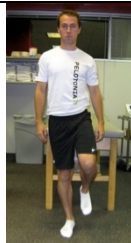


- Once approved by your physical therapist, perform stationary bike 10-20 minutes per day (no resistance, no recumbent bike and no use of foot straps on the pedals). Raise seat height to a comfortable position to avoid hip pain or discomfort.
- Add the following exercises in addition to the exercises prescribed above.

Rocking on All Fours	Position yourself on your hands and knees and shift your weight forward through your arms and then back through your knees as tolerated. Perform 10 repetitions, 2-3 sets, 3 times per day.	
Isometric Hip Abduction	With resistance band or belt around knees, attempt to separate knees without movement occurring. Hold 5 seconds; repeat 10 times, 3 times per day.	
Isometric Hip Adduction	Place pillow between knees and squeeze together. Hold 5 seconds; repeat 10 times, 3 times per day.	
Double Leg Bridges	Squeeze buttocks and lift waist up off of supporting surface. Once you have reached position as in picture, slowly lower down to table and repeat. Repeat 10 times, 3 times per day.	
Standing Heel Raises	Lift heels off floor and rise up onto toes. Repeat 30 times, 3 times per day.	

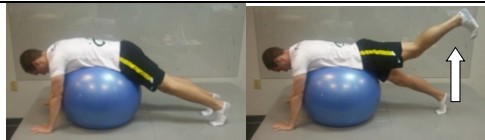



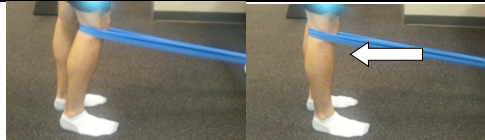



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Single Limb Balance	Stand on one foot without arm support and maintain balance. Hold for 30 seconds, 3 times per day.	
Supine Hip Abduction Slides	Lying on back, move leg to side comfortably. Repeat 10 times, 3 times per day.	
Supine Heel Slides	Dig heel into surface, slide foot toward your buttocks comfortably and then slide leg back to straight position. Avoid any irritation or pinching at hip. Repeat 10 times, 3 times per day.	

2-4 Weeks After Surgery



Prone Hip Extension	Lay supine, with torso prone on table/physio ball, and feet on the ground. Repeat 10 times, 3 times per day	
Straight Leg Raise Extension	Repeat 10 times, 3 times per day	
Straight Leg Raise Abduction/Adduction	Repeat 10 times, 3 times per day	
Leg Press/Shuttle	Start with hip/knees at 90 degree flexion and push up until hips/knees are extended. Use low resistance. Repeat 10 times, 3 times per day	
Standing Terminal Knee Extension	In standing position, loop band around leg behind knee. With band pulling knee into slight knee flexion-straighten knee while resisted by band.	
Clamshells (sidelying and supine)	With resistance band or belt around knees, attempt to separate knees with movement occurring. Repeat until fatigue, 3 times per day.	
Criteria for Progression to Next Phase	<ul style="list-style-type: none"> • Decrease edema • Minimal pain with above exercises • Normalized gait • ROM $\geq 75\%$ of uninvolved side • Proper muscle firing for initial exercises 	



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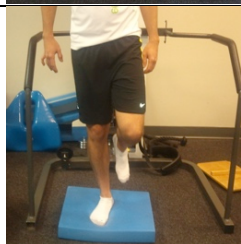
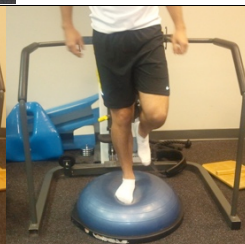
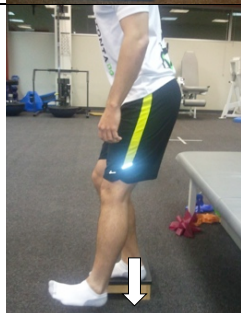



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4-6 Weeks After Surgery

ROM	<ul style="list-style-type: none"> Continue with stationary bike Continue with mobility exercise Manual Therapy (long axis distraction and A/P mobilizations) <ul style="list-style-type: none"> Grade III multi-angle joint mobilizations with and without movement Iliopsoas release 	
Strengthening	(Below) <ul style="list-style-type: none"> Double leg mini squats Progressive trunk and lumbopelvic strengthening <ul style="list-style-type: none"> Bridging with swiss ball Side abdominal bridge TKEs 	<ul style="list-style-type: none"> Functional weight bearing strengthening Leg Press/Shuttle progression to single leg strengthening
Double Leg Mini Squats	Perform 10 repetitions, perform 3 sets	
Bridging with Swiss ball	Perform 10 repetitions, perform 3 sets	
Side Abdominal Bridge/Plank	Perform until fatigue or loss of good form, perform 3 sets	
Terminal Knee Extensions	Perform 20 repetitions, perform 3 sets	
Criteria for Progression to Next Phase	<ul style="list-style-type: none"> Able to perform single-leg stance Normalized gait without assistive device No pain with above exercises Full range of motion 	




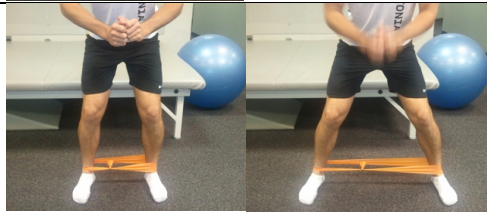
Phase II – Intermediate Phase (Weeks 6-8)

Goals	<ul style="list-style-type: none"> • Protect integrity of repaired tissue • Restore ROM • Progressively increase muscle strength and proprioceptive retraining • Emphasis on rotational strength and stability 		
ROM	<ul style="list-style-type: none"> • Continue with stationary bike • Stair-climber/upright elliptical for ROM and endurance 		
Partial Range Lunges	Step with involved LE and drop hips down towards ground, keeping knee from coming forward over toes.		
Single Leg Balance on Unstable Surfaces	Balance on involved LE with soft knee and hips level, progress to increased difficulty on unstable surfaces	 	
Step Downs	Start on 4 inch step or box, keeping hips level, drop bottom down by b	 	
Single Leg Cord Rotations	Balance on involved LE, hips level and slight bend in knee, keeping core activated, pull band across body maintaining stability through entire motion.	 	





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Mini Squats on BOSU	Stand with legs shoulder width apart and balanced on BOSU, drop back into a small squat.	
Side Shuffles with Resistance Band		
Criteria for Progression to Next Phase	<ul style="list-style-type: none"> • Improve functional strength and endurance without exacerbation of symptoms • Full pain-free ROM • Hip flexion strength >60% of uninjured • Hip add, abd, ext, IR, ER strength >70% of uninjured 	

Phase III – Advanced Rehabilitation (Weeks 8-12)

Goals	<ul style="list-style-type: none"> • Restoration of muscular strength/endurance • Restoration of cardiovascular endurance • Optimize neuromuscular control/balance/proprioception 	
ROM	<ul style="list-style-type: none"> • Continue with above and stretching 	
Strengthening	<ul style="list-style-type: none"> • Progress single limb balance on unstable balance • Progression of LE and trunk strengthening on stable to unstable surface (include rotational components) 	
Squat Progression		
Chops and Lifts (Half Kneeling, Tall Kneeling, Lunge)		
	<ul style="list-style-type: none"> • Landing mechanics with emphasis on proper alignment <ul style="list-style-type: none"> ◦ NO KNEE VALGUS ◦ Soft, quiet landings with equal distribution of force through ankle, knee, and hip. • Sport cord jogging • Begin with shuttle plyometrics <ul style="list-style-type: none"> ◦ Progress bilateral to single LE ◦ Progress straight plane to rotational component • Initiate walking-jogging progression • Swimming (Avoid rotational kicks) 	
Criteria for Progression to Next Phase	<ul style="list-style-type: none"> • Plyometrics without exacerbation of symptoms 	



Weeks 12-18

ROM	<ul style="list-style-type: none">• Continue per tolerance and pre-exercise warm-up
Strengthening	<ul style="list-style-type: none">• Continued neuromuscular strengthening with emphasis on hip and pelvic stability• Continue jogging progression• FWB plyometrics• Begin multi-directional agility drills and sport specific drills
Criteria for Progression to Next Phase	<ul style="list-style-type: none">• Ability to perform sport-specific drills at moderate speed without pain• Hip flexion strength >70% of uninvolved• Hip abd, add, ext. IR, ER strength >80% of uninvolved• Complete functional sport test<ul style="list-style-type: none">◦ 3 cross-over hop test for distance (within 15% of uninvolved limb)• Demonstrate initial agility drills with proper technique

3-6 Months

Sport-Specific Training	<ul style="list-style-type: none">• Sport specific drills• Caircoas, Z-cuts, W-cuts, etc.• Functional Testing
Criteria for Full Return to Sport	<ul style="list-style-type: none">• Physician clearance at last check-up• Hip strength >85% compared to uninvolved• Passing score on Functional Movement Screen• Demonstrate significant change with outcome questionnaire• Ability to perform sport-specific drills at maximum speed without pain

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