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Post-Operative Rehabilitation Guidelines Hip Arthroscopy

Phases and time frames are designed to give the clinician a general sense of progression. The rehabilitation program following hip arthroscopy must be tailored to the exact surgical procedure performed, while respecting the healing process for soft tissue and bone.

The program is developed to balance healing, gentle restoration of hip range of motion (ROM), and muscular balance and stability in the core, pelvic floor and hip. Special attention is given to not irritating the psoas muscle during patient education of ADLs and in physical therapy exercises. The underlying etiology of hip pathology is closely examined during the rehabilitation process to ensure mechanics throughout the kinematic chain are not contributing factors to the pathological process.

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POST-OPERATIVE PHASE I: Day 1-7

PRECAUTIONS	▪ Avoid capsular irritation and operative site overload ▪ Avoid pivoting or rotating hip during ambulation ▪ Avoid symptom provocation during ambulation, ADLs, therapeutic exercise ▪ Avoid active hip flexion with long lever arm such as straight leg raise ▪ No open chain or isolated hip muscle activation unless isometric ▪ Protective weight bearing (WB) (20%) for 2-3 weeks unless specified by MD ▪ Ambulation to fatigue only
TREATMENT RECOMMENDATIONS	▪ Focus on core and hip stability exercises utilizing isometrics and co-contractions of muscle groups ▪ Short crank or regular bike with minimal resistance for 10 to 20 minutes without pain ▪ Progress ROM as tolerated, e.g.: o Quadruped rocking into hip flexion o Active assisted range of motion internal rotation/external rotation (IR/ER)

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TREATMENT RECOMMENDATIONS (CONT.)	▪ Patient education: activity modification, bed mobility, positioning, transitional movements ▪ Gait training with appropriate assistive device on level surfaces and stairs ▪ Instruct in a step to gait pattern ▪ Home exercise program (HEP) to include: abdominal setting supine, prone abdominal setting with gluteal setting with pillow under hips, quadriceps setting
EMPHASIZE	▪ Minimizing pain and inflammation ▪ Protection of surgical site ▪ Patient compliance with activity modification ▪ 20% WB unless MD specified
MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE	▪ Compliance with self-care, home management, activity modification ▪ Normalized gait with appropriate assistive device ▪ 0/10 pain at rest and ambulation ▪ Passive range of motion (PROM) expectations- monitor for pain o Hip flexion 75°

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- ER 0°
- IR 15°

POSSIBLE MODIFICATIONS	▪ No active ER x 4 weeks if patient has concomitant pelvic floor pathology ▪ Limit ER as per MD (0°-30°) if there has been a capsular fixation during surgery

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POST-OPERATIVE PHASE II: Weeks 2-6

PRECAUTIONS	▪ Avoid premature discharge of assistive device- continue to use assistive device until non-antalgic gait ▪ Avoid symptom provocation during ADLs or therapeutic exercise ▪ Minimize faulty movement patterns and posture ▪ Limit active hip flexion if symptomatic ▪ Avoid premature use of gym equipment for hip strengthening
TREATMENT RECOMMENDATIONS	▪ Soft tissue mobilization to hypertonic muscles only ▪ Hip ROM with a stable pelvis: bent knee fall out, quadruped rocking ▪ Hip strengthening, e.g.: o Closed chain function and stability movements

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TREATMENT RECOMMENDATIONS (CONT.)	▪ Bridging, standing mini squats ▪ Open chain hip extension to neutral with abduction ▪ Core control progressions either from upper extremity movement patterns or functional, closed chain movements ▪ Functional strength to include: ▪ Stationary bike 10-20 minutes daily ▪ Prone gluteal and core firing sequence ▪ Leg press after 3 weeks ▪ Squats with emphasis on hip driven motion ▪ Step up/step down (as strength allows) ▪ Abdominal stabilization progression ▪ Standing contralateral stability with elastic bands

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	○ Proprioception and balance exercises: progress from double limb support to single limb
EMPHASIZE	▪ Minimizing pain and inflammation ▪ Patient compliance with activity modification ▪ Continued protection of hip flexor with avoidance of faulty movement patterns
MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE	▪ Upright bicycle tolerance 10-20 minutes daily ▪ Able to ascend/descend 8" step with good pelvic control ▪ Pelvic control during single limb stance ▪ Pain-free ADLs

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POST-OPERATIVE PHASE III: Weeks 7-12

PRECAUTIONS	▪ Avoid symptom provocation, e.g. minimize active hip flexion if symptomatic ▪ Avoid sacrificing quality of movement for quantity ▪ Avoid over releasing tight tissues ▪ Limit strengthening the hip with gym equipment
TREATMENT RECOMMENDATIONS	▪ Soft tissue mobilization to hypertonic tissues only ▪ Progress pain free ROM at end range ▪ Demonstration of moderate level core exercises in functional patterns, e.g.: o Quadruped stability o Kneeling trunk stability and rotational strength o Pallof press and rotations o Standing diagonals o Hip strengthening in closed chain

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TREATMENT RECOMMENDATIONS (CONT.)	○ Squats with emphasis on hip driven motion ○ Lunges - static and traveling ○ Leg press single limb progressions ▪ Step up/step downs ▪ Contralateral stability with elastic bands ▪ Seated eccentric psoas strengthening ▪ Cross training: elliptical trainer and bicycle- observe for good core and pelvic control ▪ Proprioception and balance exercises, e.g.: ○ Progress from double to single limb support with perturbations ○ Windmills, Lawnmowers ○ Star Excursion ▪ Light agility drills ▪ Initiate plyometrics if an adequate strength base is present
EMPHASIZE	▪ Minimize pain and inflammation

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	▪ Patient compliance with activity modification ▪ Protect hip flexors ▪ Restore faulty functional movement patterns
MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE	▪ Normalized gait without an assistive device ▪ Good dynamic balance ▪ 5/5 lower extremity strength ▪ Optimized PROM: Flexion 110°, IR 30°, ER 45° ▪ Pelvic control with single limb activities ▪ Independent HEP and gym program as instructed ▪ Core control: 30 second front/side planks, bird dog series with control

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POST-OPERATIVE PHASE IV: Weeks 13-16

PRECAUTIONS	▪ Avoid symptom provocation
TREATMENT RECOMMENDATIONS	▪ HEP and gym program, as instructed: strength training and flexibility exercises ▪ Closely monitor for adequate strength base ▪ Begin sport specific exercise progression ▪ Develop functional progression control ▪ Advance plyometric training: double to single leg progressions ▪ Dynamic balance activities, e.g. cutting/agility skills/external perturbation ▪ Advance training of core for strength and endurance ▪ Dynamic planks front/side up to 60 seconds ▪ Address remaining muscle imbalances

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	▪ Initiate running program with sufficient single leg stability ▪ 8" step up/down with pelvic control ▪ 60 second single leg side plank ▪ Monitor for weakness/faulty movement patterns ▪ Pelvic and LE control during plyometric exercises
EMPHASIZE	▪ Self-monitoring of symptom provocation ▪ Optimize ROM and strength ▪ Functional strengthening
MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE	▪ Lumbopelvic and hip strength/stability while maintaining pelvic control ▪ 0/10 pain with advanced activities ▪ Optimal ROM for activity demands ▪ Independent HEP and gym exercise program ▪ Minimal post-exercise soreness

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POST-OPERATIVE PHASE V: Return to Sport

PRECAUTIONS	▪ Avoid pain with therapeutic exercise and functional activities ▪ Avoid too much too soon- monitor exercise and activity dosing ▪ Don't ignore functional progressions ▪ Be certain to incorporate rest and recovery
TREATMENT RECOMMENDATIONS	▪ Initiate running when able to decelerate body weight with appropriate technique and control ▪ Advance proprioceptive balance training ▪ Advance LE strengthening (bilateral and single leg) ▪ Plyometric progressions ▪ Sport-specific agility training ▪ Increase endurance and activity tolerance ▪ Sport-specific multidirectional core retraining

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	▪ Progress total body multidirectional motor control exercises to meet sport-specific demands ▪ Collaboration with trainer, coach or performance specialist ▪ Patient education regarding self-monitoring of exercise volume and load progression.
EMPHASIZE	▪ Self-monitoring of exercise volume and load progression ▪ Sport specific speed and power drills ▪ Agility, change of direction and deceleration ▪ Collaboration with appropriate trainer, coach or performance specialist
MINIMUM CRITERIA FOR RETURN TO SPORT	▪ Lack of pain, swelling and apprehension with sports-specific movements ▪ Quantitative assessments ≥ 90% of contralateral LE ▪ Movement patterns, functional strength, flexibility, motion, endurance, power,

	deceleration, and accuracy to meet demands of sport ▪ Independent with gym or return to sport program