

Brian P. Davis, MD Sports Medicine, Shoulder, Knee, & Elbow Surgeon office: 303.449.2730

POST OPERATIVE HIP ARTHROSCOPY PROTOCOL

LABRAL REPAIR, LABRAL RECONSTRUCTION, FEMOROPLASTY, CHONDROPLASTY, ACETABULOPLASTY

	Time Frame (Weeks)	Guidelines	Goals
PHASEI	0 to 3	 WEIGHTBEARING: 50% flat foot PWB x 3 weeks BRACE: Bledsoe brace: 30°-75° x 3 weeks CPM: 4-6 hours/day OR stationary bike 30 min/day without resistance. RESTRICTION: Lie on stomach 2 or more hours/day - NO HYPEREXTENSION EXERCISE PROGRESSION POST-OP DAY 1-7 Stationary bike with no resistance: 15 minutes up to 2x per day; as tolerated Isometrics: (2x/day) Glute, quadriceps, hamstring, abduction, and adduction; as tolerated Hip PROM: (2x/day) flexion, abduction, IR supine @ 90° and prone @ 0° POST-OP DAY 8-21 Add Hip IR/ER isometrics (2x/day) Initiate basic core: pelvic tilting, TVA and breathing re-education Quadruped rocking (POD 7) Short ROM bridging Standing TKE, standing hamstring curls, pilates ring adduction/abduction (full WB on uninvolved side only) Heel raises @ 50% weight bearing Butterflies and reverse clams as tolerated POOL PROGRAM May begin deep pool walking @ 1 week if incisions are well covered with tegaderm Buoy swimming @ 2 weeks post-op CRITERIA FOR PROGRESSION ROM steadily progressing Limited edema Early restoration of neuromuscular control; Good glute activation and deep core activation. 	 ROM RESTRICTIONS Flexion: 0°-90° x 2 weeks, progress to 120° by week 3 Extension: 0°; NO HYPEREXTENSION External Rotation: allowed as tolerated between 30°-90° of hip flexion Internal rotation: ROM as tolerated at 0° and 90° Abduction: up to 45° x 3 weeks

PHASE I: CLINICAL PEARLS

- 1. Avoid prolonged sitting at 90° of hip flexion for first 2 weeks.
- 2. Edema reduction, gentle ROM, and restoration of normal neuromuscular firing patterns are most important during PHASE I.
- 3. Use soft tissue work to reduce edema in quads and hamstring in early post-op phase.
- 4. Tone quickly develops in the adductors, TFL and rectus femoris as these muscles try to make up for inhibition of the psoas; Use soft tissue work to reduce irritation of these muscle groups.

	Time Frame (Weeks)	Guidelines	Goals
PHASE II		 WEIGHTBEARING: WBAT on 2 crutches for 4-7 days, then 1 crutch, then full WBAT EXERCISE PROGRESSION Prone Assisted Hip Extension (PAHE)- NO LIFT OFF FROM FOAM ROLLER Bridging double leg with progression to single leg Supine dead bug series (NO ACTIVE HIP FLEXION) Standing hip abduction (no sidelying until 6 weeks) Quadruped hip extension series Standing open and closed chain multi-plane hip Standing internal/external rotation strengthening (use stool) Balance training Tall kneeling Hip Thrust is good intro for hip hinge; can introduce and add load early ½ kneeling and tall kneeling progressions for glute activation Step-up progression (4 wks) Squat progression (5-6 wks) Heel raises Hamstring curl- machine or ball Stationary biking (may add resistance) Stretching: quadriceps, piriformis as tolerated and hamstrings. NO HIP FLEXOR STRETCHING until after 6 weeks!) MANUAL INTERVENTION Scar mobilization: 2 times per day: May use Vitamin E or other lotion as desired STM to quad, ITB, hip flexors, glutes, hip adductors/ abductors/rotators Continue work on ROM as tolerated (flexion, abduction, IR, ER)- supplement any limitations with AAROM/AROM at home. POOL PROGRAM Swimming flutter/dolphin kick @ 6 weeks 	Goals Normal gait (goal by 6 weeks or earlier if possible) Normal single limb stance-no hip drop and good glute activation Improving ROM Focus on patient having good understanding of glute activation and deep core activation Begin very basic LE strength and endurance work
PHASE II: CLI		Swimming flutter/dolphin kick @ 6 weeks CRITERIA FOR PROGRESSION	
		 50% FABER ROM compared to uninvolved side Normal Gait No Trendelenberg with Single Leg Stance/descending stairs Pain-free bilateral squat without compensation if all prior criteria are met. 	

- 3. Limit exercise progression until gait is normal.
- 4. Emphasize hip abduction and trunk stability/endurance
- 5. Expect mild setbacks, at times patient may need to go back to phase 1 program for a few days
- 6. Therapist directed soft tissue mobilization prior to exercise opens up available ROM and allows the muscle to optimally contract. (Focus on glutes, hip flexor, quad, lateral hip, hamstrings, adductors)
- 7. Soft Tissue mobilization of lumbar spine and TL junction may significantly help patients struggling with extension and gait. Often times you will see tightness on the contralateral side from due to compensated gait patterns.
- 8. Continue assessing glute function and patients can selectively activate glutes before progressing exercise program.

	Time Frame (Weeks)	Guidelines	Goals		
PHASE III	(Weeks) 6 to 12	 EXERCISE PROGRESSION Progress core program as appropriate: Dead Bugs, planks, advanced core work (plank @ 3-4 wks, side plank @8 wks) Advance glute and posterior chain strengthening Leg press: not to break 90 degree (thigh to torso angle) Hip Thrust/Hip Buck Squat progression (double to single leg- load as tolerated) Lunge progression Walking program Outdoor biking- week 6: no clips HIP STABILITY PROGRAM Prone Hip Extension (1x10) Pelvic Tilt (1x10) Double Leg Bridge (2x10) Single Leg Bridge (2x10) Wall Abduction (3x10) Wall Adduction (3x10) Quadruped Kick Back (3x10) POOL PROGRAM Swimming- Breast stroke kick @ 10-12 weeks if ROM okay Pool running program-week 4-at least 75% unloaded MANUAL INTERVENTION Continue soft tissue mobilization as needed particularly lumbar spine, TL junction, adductors, hip flexors, abductors Joint mobilizations as needed for patients lacking ROM and capsular restriction May begin trigger point dry needling for glutes, quads, adductors, rectus femoris. No lliopsoas needling until wk 8. Assess Functional movement and begin to address other movement dysfunctions Introduce patients to self soft tissue management with foam roller and lacrosse ball for smaller targeted areas. CRITERIA FOR PROGRESSION 10-12 weeks post-op AND the following: Hip abduction and extension strength 5/5 Single Leg Squat symmetrical with uninvolved side Full ROM in flexion IR ROM within 5 degrees of opposite side without impingement pain ER/FABER within 10 degrees and 3cm Pain-free CKC strength program 	 Introduce Hip Stability program as outlined above (Make any modifications needed) Introduce movement series to increase proprioception, balance, and functional flexibility 		

PHASE III: CLINIC PEARLS

- 1. Continue gradual ROM progression as tolerated, begin to address real flexibility issues with more targeted stretching
- 2. Strengthen 3 time per week with at least 24 hours between sessions to optimize recovery.
- 3. 24 hours soreness after strength work is expected. The patient should be recovered prior to their next training session.
- Closed chain strengthening and impact loading may need modification or elimination from the program if DJD is present. Prior knowledge of the condition of the articular cartilage is needed to make sound clinical judgment on exercises selection/advancement.
- 5. If your patient appears to be struggling in this phase be sure to assess and re-assess each visit: consider all soft tissues and joints in lumbar, thoracic, hip, and pelvic floor regions until you can eliminate their involvement as pain/dysfunction contributors.

	Time Frame (Weeks)	Guidelines	Goals
PHASE IV	12 to 32	 EXERCISE PROGRESSION May begin elliptical and stair climber at 12 weeks May begin return to run program ONLY WHEN PHASE IV criteria are met (typically 16 weeks) May begin impact/plyometric activity ONLY WHEN PHASE IV criteria are met Maintain Hip Stability Program, trunk, hip and lower extremity strength and flexibility program Begin ladder drills and multidirectional movement Introduce and progress plyometric program Begin Interval running program Make Referral to Sports Performance Staff when appropriate: pain-free, good strength tolerating light impact activity Field/court sports specific drills in controlled environment Non-contact drills and scrimmaging – must have passed sports test- refer to specific return to sport program POOL PROGRAM Breast Stroke kick at 12 weeks post-op MANUAL INTERVENTION Continue soft tissue mobilization as needed particularly glutes, adductors, hip flexors, abductors Joint mobilizations as needed for patients lacking end range FABER ROM Trigger point dry needling for glutes, TFL, quads, adductors, ilioposoas, iliacus may continue to benefit patients with tightness or mild ROM restrictions CRITERIA FOR PROGRESSION 10-12 weeks post-op AND the following: Hip abduction and extension strength 5/5 Single Leg Squat symmetrical with uninvolved side Full ROM within 5 degrees of opposite side without impingement pain ER/FABER within 10 degrees and 3cm Pain-free CKC strength program 	 Physician follow-up for clearance to return to activity Pass sports testing @ 24 weeks Make referral to Sports Performance Staff when appropriate: pain-free, good strength tolerating light impact activity

PHASE IV: CLINICAL PEARLS

- 1. Patient should continue self-soft tissue management with foam roller/lax ball for tightness.
- 2. Maintain flexibility program understanding that tightness is normal up to one year post-op.
- 3. Patients should continue hip stability program 3-4 times per week for life
- 4. Strength training at least 2 days per week, 3 days per week if returning to high impact activity/sport activity
- 5. Patient may be cleared for RTS following a negative clinical exam and passage of return to sport test
- 6. Follow sport specific RTS program for field/court progression to ensure a safe return to full activity.
- 7. Average return to sport time is 8.5 months without restrictions.