**Gluteus Medius Repair/Trochanteric Burstectomy**

**Accelerated Rehab Protocol**

**Phase 1 (Weeks 0-4) Max protection phase; post op until cleared to begin WB progression by MD**

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| **Goals**  | * Protection of tendon repair, follow conservative vs accelerated protocol per MD orders
* Pain and edema control
* Normalize gait pattern while using brace; crutches
* Begin to normalize regional muscle activation; range of motion
 |
| **Precautions** | * Weight Bearing (WB): 20 lbs WB x4 weeks
* NO active abduction/internal rotation x6 weeks
* NO passive external rotation, adduction past neutral x6 weeks
* Brace worn when out of bed
* Monitor for symptoms of hip flexor tendinitis, synovitis
* Monitor for symptoms or history pelvic floor dysfunction
	+ *Increased urinary frequency (>once/2 hours daily), stress or urge incontinence, buttock/coccygeal/ischial tuberosity pain that does not improve with standard orthopedic physical therapy approach*
 |
| **ROM/Manual Therapy** | * Pain free physical therapist (PT) and partner assisted PROM
	+ Flexion limited to 90 degrees, abduction to tolerance
	+ NO active abduction; internal rotation (IR)
	+ NO passive ER, adduction past neutral to not stress the repair
* Scar tissue, surgical incision management to prevent adhesions
* Retrograde massage, regional soft tissue mobilization as needed
* Prone lumbar mobilizations as needed
 |
| **Motor Control/ Neuromuscular Re-education** | * 0-2 weeks
	+ Pelvic tilts, hamstring/adduction isometrics, diaphragmatic breathing
	+ Gluteus maximus progression in prone, supine
	+ At 2 weeks: initiate ER/extension/Adduction isos at 50% max effort
	+ MUST be pain free at surgical site
* 3-4 weeks post op
	+ Initiate supine marching progression if patient has no history of hip flexor tendinitis
	+ Prone rhythmic stabilization for ER/IR, beginning at 25% max effort
		- Patient will be prone with knee bent to 90 degrees, manual cues for IR/ER applied at the ankle
 |
| **Therapeutic Exercise** | * Week 2 upright stationary bike within range of motion limitations x20 min daily
	+ Patients may complete this training 2x daily if tolerable
* Prone lying if required for hip flexor lengthening
* 3-4 weeks: quadruped rocking to 90, cat camels
* Week 3-4: quadruped and standing hip extension, stance on non-operative limb
	+ Standing knee flexion/hip flexion, stance on non-operative limb
 |
| **Criteria for progression** | * Normalized gait pattern within WB precautions, with AD
* Pain free PROM within limitations of the protocol
 |

**Phase 2 (Weeks 4-8) Basic activation and motor control phase**

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| **Goals**  | * Successfully wean from assistive devices, brace
* Pain free ADL function; normalized DL tasks in small range
* Full passive ROM
 |
| **Precautions** | * Continue to monitor for symptoms of hip flexor tendinitis, trochanteric pain, synovitis, or pelvic floor dysfunction
* Monitor for increased pain with ADLs, regress as indicated
* No single leg strength/high level impact act this time
 |
| **Weight Bearing Progression** | * Will take at approximately 7 days, progress per pain tolerance/soreness rules
* Pool walking highly encouraged, no side stepping!
* After 4 weeks, progress to WBAT with assistive device and 1 crutch for short distances. After 2-3 days, 1 crutch in public, none at home. After another 2-3 days, FWB in all settings
	+ Please leave this up to your discretion as the treating therapist
	+ Based on patient tolerance vs timelines at this point!
 |
| **ROM/Manual Therapy** | * Progress PROM as tolerated. Add passive hip ER/IR. Avoid extreme combined ROM or pain
* Continue with scar tissue/soft tissue mobilization as indicated
* Begin joint mobilizations of the hip as indicated
	+ i.e. Hip inferior/lateral mobilizations, prone PA mobilizations
 |
| **Motor Control/ Neuromuscular Re-education** | * Quadruped and tall kneeling rhythmic stabilization of hip deep rotators, core musculature
* Begin quadruped hip extension, standing hip extension with stance on non-operative limb
	+ Progress to birddog exercise as tolerated by patient symptoms
* Continue with light lumbopelvic strengthening
* Continue with hip flexor progression per patient tolerance (see appendix)
* Week 4-6 Kneeling front planks
	+ NO side planks at this time due to high levels of gluteus medius activation
	+ Progress to full planks at week 8 post op
* Week 6-8: begin gluteus medius isometrics with 10% MVC. Must be Pain free, progress to 50% MVC as tolerated
	+ Begin in hooklying positions before completed against gravity (clam position)
	+ NO long lever hip abduction isometrics at this point
* Double leg balance tasks (i.e. Balance board tasks), split stance balance tasks
 |
| **Therapeutic Exercise** | * Continued quadruped rocking exercises
* Continued cardiovascular program via biking, initiate pool walking as indicated
* Standing hip flexion/extension, calf raises, HS curls with operative limb
* Leg press or double leg squats within tolerance
	+ Smaller range squats will have less demand on gluteus medius, begin with ¼ to ½ depth and progress over the course of 2-3 weeks
* Week 6+ double leg hip hinges progressing to kickstand deadlift positions
 |
| **Criteria for progression** | * Pain free, symmetrical passive range of motion and joint mobility
* Normalized gait pattern, no pain or Trendelenberg gait pattern
* Pain free performance of ADLs
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**Phase 3 (Weeks 8-12) Beginning strength phase**

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| **Goals**  | * Continue to progress lumbopelvic and gluteal strength without pain
* Increase tolerance to strength and endurance based tasks
 |
| **Precautions** | * Continue to monitor for symptoms of hip flexor tendinitis, trochanteric pain, synovitis, or pelvic floor dysfunction
* NO single leg strength/high level impact act this time
 |
| **Manual Therapy** | * Achieve and maintain full, multiplanar range of motion and lumbopelvic joint mobility
	+ Joint mobilizations, soft tissue mobilizations, dry needling as needed/determined by physical therapist
* Consider consult with pelvic floor therapist if indicated
 |
| **Motor Control/ Neuromuscular Re-education** | * Continue with gluteus medius isometrics
	+ Week 10+ progress to standing gluteal isometrics in small range, standing on non-operative limb, progress to standing on operative limb
* Week 10: begin single limb bridges in small range if pain free.
* Continue with double leg and split stance balance and strength tasks, progressing to kickstand positions at week 10. Must be pain free!
	+ Week 8+ kickstand hip hinges progressing to kickstand deadlift positions
 |
| **Therapeutic Exercise** | * Cardiovascular training: continue biking
* Continue with core progression as indicated, please continue to hold on side planks due to repair size
* Continue with quadruped birddogs, add single leg bridges
* Week 8+ forward step ups, progressing to lateral step ups at week 10+
* Initiate pelvic drops in small range at weeks 10-12+. This is a higher demand gluteus medius exercise and must be pain free!
* Week 10+ multi-angle clams, begin in larger degree of hip flexion (60 degrees), progressing to neutral hip positioning
* Add reverse lunges, operative limb trailing and progress to operative limb forward by week 10 if pain free. Add side lunges at week 12+ if pain free
	+ TRX assistance highly encouraged
 |
| **Criteria for progression** | * Walk 1 mile without insertional pain, Trendelenberg gait pattern
* Complete all strength training tasks without pain
 |

**Phase 4 (Week 12-16): Continued Strengthening to Progressive Overload**

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| **Goals**  | * Continue to build strength, progressing into single leg positions
 |
| **Precautions** | * Continue to monitor for symptoms of hip flexor tendinitis, trochanteric pain, synovitis, or pelvic floor dysfunction
* NO plyometric tasks without passive testing as listed
 |
| **Manual Therapy** | * Maintain full, multiplanar range of motion and lumbopelvic joint mobility
	+ Joint mobilizations, soft tissue mobilizations, dry needling as needed/determined by physical therapist
 |
| **Therapeutic exercise Neuromuscular Re-education** | * Progressive hip ROM and stretching as indicated
* Progressive LE and core strengthening
	+ May initiate higher level tasks including single leg deadlifts
	+ May initiate small range, kickstand pistol squats, progressing to single leg squats at week 14+. Initiate single leg squats with TRX support
* Week 12+: begin kneeling side planks if pain free
	+ Week 12: operative limb raised, Week 14: operative limb down
* Increase dynamic balance demand as tolerated
* Cardiovascular training: begin elliptical as tolerated/desired
 |
| **Criteria for progression** | * Pass step down test (see appendix) with <2 errors
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**Phase 5 (Week 16-20+): Continued, high level strength training progressing to discharge**

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| **Goals**  | * Continue to build strength in single leg positions
* Initiate running progression if this is a goal
 |
| **Precautions** | * Continue to monitor for symptoms of hip flexor tendinitis, trochanteric pain, etc
 |
| **Manual Therapy** | * Maintain full, multiplanar range of motion and lumbopelvic joint mobility
 |
| **Therapeutic exercise Neuromuscular Re-education** | * Begin side steps week 16+, progressing to resisted side steps
* Continue single limb strengthening
* Increase dynamic balance demand as tolerated
* Dynamic lunges: forward, lateral, curtsy lunges in small range
* Cardiovascular training: begin running once patient passes y-balance/step down tests
 |
| **Criteria for progression** | * Criteria for discharge
	+ Pass y-balance test
	+ Return to high level tasks per patient goals without pain
 |

**Appendix**

 **Psoas progression/marching progression**



**Forward Step Down Test**

