**Gluteus Medius Repair/Trochanteric Burstectomy**

**Conservative Rehab Protocol**

**Phase 1 (Weeks 0-6) Max protection phase; post op until cleared to begin WB progression by MD**

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| **Goals**  | * Protection of tendon repair, conservative vs accelerated protocol per MD
* 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 x6 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** | * 0-4 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
* 5-6 weeks
	+ 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
	+ MUST be pain free at surgical site
 |
| **Therapeutic Exercise** | * Week 2-3 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
* 4 weeks: quadruped rocking to 90, cat camels
 |
| **Criteria for progression** | * Normalized gait pattern within WB precautions, with AD
* Pain free PROM within limitations of the protocol
 |

**Phase 2 (Weeks 6-10) 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 least 7-14 days, progress per pain tolerance/soreness rules
* Pool walking highly encouraged, no side stepping!
* After 6 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
* Continue with light lumbopelvic strengthening
* Continue with hip flexor progression per patient tolerance (see appendix)
* Kneeling front planks
	+ NO side planks at this time due to high levels of gluteus medius activation
* Double leg balance tasks (i.e. Balance board tasks), split stance balance tasks
	+ NO single leg, tandem stance at this time due to high levels of gluteus medius activation/demand
* Week 9-10: begin gluteus medius isometrics with 10% MVC. Must be Pain free!
	+ Begin in hooklying positions before completed against gravity
 |
| **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
 |
| **Criteria for progression** | * Pain free, symmetrical passive range of motion and joint mobility
* Normalized gait pattern without assistive devices, no pain or Trendelenberg gait pattern
* Pain free performance of ADLs
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**Phase 3 (Weeks 10-14) 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 12+ progress to standing gluteal isometrics in small range, standing on non-operative limb
* Continue with double leg and split stance balance and strength tasks, progressing to kickstand positions at week 10. Must be pain free!
	+ Week 10+ double leg hip hinges progressing to kickstand deadlift positions
 |
| **Therapeutic Exercise** | * Cardiovascular training: continue biking for cardiovascular training
* 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 12+ forward step ups, progressing to lateral step ups at week 14+
* Week 12+ multi-angle clams
* Add reverse lunges, operative limb trailing and progress to operative limb forward by week 12 if pain free. Add side lunges at week 14+ 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
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**Phase 4 (Week 14-20): 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 16+
	+ Initiate hip hikes in small range at weeks 16+. This is a higher demand gluteus medius exercise and must be pain free!
* Week 16: begin kneeling side planks if pain free
* 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
 |

**Phase 5 (Week 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 20+, progressing to resisted side steps
* Continue single limb strengthening
* Increase dynamic balance demand as tolerated
* 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**

