Connecticut Orthopaedics

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Open Gluteus Medius Repair
Post-Operative Protocol

Adapted from Dr. Brian White www.western-ortho.com

The Gluteus Medius and Minimus complex are the most important muscular group for maintaining pelvic balance with ambulation. When these tendons are torn, it usually takes some time for patients to get this fixed. Over this period, abnormal muscular compensations occur and the muscle itself weakens. The repair is strong and is augmented biologically with PRP and a collagen matrix to enhance tendon growth. While it is healing, it needs to be protected. It takes time for the tendon to heal before the muscle can be strengthened. This process should be respected and taken slow. A limp cannot be accepted during this process. It can take up to a year or two to fully recover the strength in the Gluteus Medius and Minimus.

The intent of this protocol is to provide guidelines for progression of rehabilitation, it is not intended to serve as a substitute for clinical decision making. Progression through each phase of rehabilitation is based on clinical criteria and time frames as appropriate. Every patient's baseline function and weakness is different, so too are their global goals and needs.

Phase I—Protection Phase
Weeks 0-8

Weight Bearing

- Partial thickness repair: 25% weight bearing x 4 weeks
- Full thickness repair: 25% weight bearing x 6 weeks
- No Trendelenburg or limp should be accepted with the transition off of the crutches or the walker
- Pool therapy can be helpful with this transition off crutches. Focus on form and pelvic balance to build strength and endurance in a more buoyant environment.

Range of motion restrictions:

- **Hip abduction brace x6 weeks**
- No active hip abduction
    - Partial thickness repair: 4 weeks
    - Full thickness repair: 6 weeks
- No passive adduction across midline for 6 weeks, wedge pillow for sleeping at night. No brace.
- Isometrics only for Gluteus Medius for 0-6 weeks
- Gentle Active-Assist can begin at 6 weeks

Goals:
- Reduce swelling and pain
- Restore mobility within limitations
- Restore normal gait with no limp or Trendelenberg
- Promote normal proprioceptive and neuromuscular control

Pain and Swelling
- PRICE – _Protection, Rest, Ice, Compression, Elevation
    - At a minimum 5-6 times per day for 20-30 minute sessions
    - There is no maximum!
    - Icing is encouraged
    - Ankle Pumps for swelling and DVT prevention

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Range of Motion

- Passive Range of Motion
  - Partner assisted ROM recommended for 10 minutes, 2x/day
  - Circumduction (hip circles)
  - Internal rotation (log rolls)
- Active/Active Assistive Range of Motion
  - Week 1 begin quadruped rocking and cat/camel
  - Upright stationary bike without resistance 20 minutes per day
    - No recumbent biking

Aquatic Therapy

- Can begin at week 6
- Circumduction, Hip extension, 1/3 squats
- Forwards and Backwards gait with emphasis on full hip extension and an upright trunk. Focus on form of ambulation with a level pelvis.

Strength/Motor Control

- Isometrics
  - Quad sets, Glut sets, Transverse abdomonis isometrics
- Edge of bed hip extension
- Standing Skaters (abduction with IR) for glut medius
- Swiss ball flexion (hamstring ball rolls) for initial psoas activation
- Tall kneeling with controlled rotation and pelvic tilt

Proprioception and Neuromuscular Re-education

- Prone IR/ER rhythmic stabilization exercises
- Quadruped stabilization exercises
- ½ kneeling for stability prior to full weight bearing
- Standing forward flexion

Criteria for advancement to Phase 2:

- Pain-free passive hip flexion and abduction
- Able to maintain full bridge position without compensations
- Mild deviations in gait with no discomfort and no Trendelenburg or limp
- Maintain stable tall kneeling position without anterior hip discomfort

Phase 2—Initial Strengthening
Weeks 8-12

Goals:

- Full active and passive ROM including pain-free standing hip flexion
- Rotary stability including side and front planks without compensations or pain
- Normalize gait
- Increase leg strength to allow for: Walking without a limp and increase endurance.
  - Stair descending without compensations
  - Single leg bridge
  - Double knee bends without compensations
  - Single knee bend to 70º without compensations
  - Active Assist Gluteus Medius (6 weeks to 3 months), Active Gluteus Medius 3 months and more aggressive strengthening closer to 6 months.

Strength, Proprioception and Neuromuscular Re-education

- Closed chain double leg strength and stability exercises at therapist's discretion. Include multiplanar strength and proprioception; bridging progression, closed chain hip abduction strength

Cardio

- Bike gradually increasing resistance at week 10 and when patient can ambulate without a limp; limit to a maximum of 30 minutes total for the first two weeks then continue to progress gradually if there is no increased hip pain
- Swimming without leg kick (using a pool buoy) beginning at week 8.
    - Swimming with kicking allowed at week 12 only if there is no hip flexor pain

Criteria for Advancement to Phase 3:

- Full active and passive ROM
- Ascending and descending stairs with involved leg without pain or compensation
- Gait without deviations or pain after 1 mile of walking on level surface
- At least 1 minute of double knee bends without compensations
- Single knee bends to 70º flexion without compensations
- Rotary stability and ability to hold plank

Phase 3—Advanced Strengthening
Weeks 12—Sport Specific Training

Goals:

- Restore multi-directional strength and agility and increase Gluteus Medius endurance and pelvic balance for longer distances

No running activities until a minimum of 6 months and patient is demonstrating excellent gluteus medius strength and endurance

Criteria for Return to sport

- Bilateral 1 minute single leg stance with alternate hip flexion/extension
- Resisted single leg squat for 3 minutes

Perform sport specific strength training and drills as required by patient's needs

Closed chain pilates is recommended for hip maintenance and can be very helpful in the final phase of PT to address late muscular imbalance and maintain posterior chain strength. In addition, a condensed PT protocol (5 minutes-10 minutes) should be a part of a lifelong maintenance protocol.