



### **Phase I – Maximum Protection**

#### **Weeks 0 to 3:**

- 25-50% weightbearing for 3 weeks
- Lie on stomach 2 or more hours per day
- Range of motion restrictions x 3 weeks
  - Flexion 0° to 90° for 2 weeks progressing to 120° by week 3
  - Extension 0°
  - External rotation 0°
  - Internal rotation - work for full range at 0° and 90°
  - Abduction 0° to 45°
- Exercise progression (POD 1 to 7)
  - Stationary bike with no resistance: immediately as tolerated
  - Glute, quadriceps, hamstring, abduction, adduction isometrics (2x/day): immediately as tolerated
  - Hip PROM (2x/day) flexion, abduction, IR supine at 90° and prone at 0°
  - Hip circumduction
- Exercise progression (POD 8 to 14)
  - Hip IR/ER isometrics (2x/day)
  - Initiate basic core: pelvic tilting, TVA and breathing re-education
  - Beginning POD 14: quadruped rocking
- Exercise progression (POD 15 to 21)
  - Standing abduction/adduction - full weightbearing on uninvolved side only

#### **Criteria for progression to Phase 2:**

- Mobility within limitations
- Early restoration of neuromuscular control
- Normal patellar mobility

### **Phase II – Progressive Stretching and Early Strengthening**

#### **Weeks 3 to 6:**

- May begin deep water pool walking at 3 weeks if incisions closed, flutter/dolphin kick at 6 weeks
- Goals
  - Wean off crutches (over 7 to 10 days)
  - Normal gait
  - Normal single limb stance
  - Full range of motion
  - Improve lower extremity muscle activation, strength and endurance

### Manual therapy

- Scar mobilization
- STM to quad, ITB, hip flexors, glutes, hip adductors/abductors/rotators
- Continue work on range of motion (FABER, flexion, abduction, IR, ER)

### Exercise progression (as tolerated)

- Bridging double and single
- Supine dead bug series
- Sidelying hip abduction
- Quadruped hip extension series
- Standing open and closed chain multi-plane hip
- Standing internal/external rotation strengthening (use stool)
- Step-up progression
- Squat progression
- Heel raises
- Stationary biking
- Stretching: quadriceps, piriformis and hamstrings

### **Criteria for progression to Phase 3:**

- Hip abduction strength 4/5
- Flexion, ER and IR range of motion within normal limits
- 50% FABER range of motion compared to uninvolved side
- Normal gait
- No Trendelenberg with single leg stance/descending stairs
- Normal bilateral squat

### **Phase III – Advanced Strengthening and Endurance Training**

#### **Weeks 6 to 12:**

**Please do not discharge patient prior to 3 months without approval from Dr. Mullen/Schroepfel**

### Manual therapy

- STM as needed - particularly glutes, adductors, hip flexors, abductors
- Gentle joint mobilizations as needed for patients lacking ER or FABER range of motion
- May begin trigger point dry needling for glutes, quads, adductors
  - No hip flexor tendon until week 8.
- Assess FMA and begin to address movement dysfunctions

### Exercise progression

- Continue with muscle activation series (quadruped or straight leg series)
- Introduce movement series to increase proprioception, balance, and functional flexibility
- Progress core program as appropriate
- Advanced glute and posterior chain strengthening
- Leg press and leg curl
- Squat progression (double to single leg - add load as tolerated)
- Lunge progression
- Step-up progression
- Walking program
- Week 6:
  - Outdoor biking

- Pool running program (at least 75% unloaded)
- Week 8 (if range of motion adequate): swimming - breast stroke kick

**Criteria for progression to Phase 4:**

- 12 weeks post-op
- Hip abduction and extension strength 5/5
- Single leg squat symmetrical with uninvolved side
- Full range of motion
- No impingement with range of motion

**Phase IV – Return to Sport Program**

**Weeks 12 to 20:**

- May begin elliptical and stair climber at 12 weeks
- May begin return to run program if phase 4 criteria are met

Manual therapy

- STM as needed particularly glutes, adductors, hip flexors, abductors
- Gentle joint mobilizations as needed for patients lacking ER or FABER range of motion
- Trigger point dry needling for glutes, TFL, quads, adductors, iliopsoas, iliacus
  - May continue to benefit patients with tightness or mild range of motion restrictions

Exercise progression

- Maintain muscle activation series, trunk, hip and lower extremity strength and flexibility program
- Introduce and progress plyometric program
- Begin ladder drills and multidirectional movement
- Begin interval running program
- Field/court sports specific drills in controlled environment
- Pass sports test
- Non-contact drills and scrimmaging – must have passed sports test - refer to specific return to sport program
- Return to full activity – per physician and passing functional hip test

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