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Surgical Hip Dislocation Protocol

Revised 2023

*****Please refer to written prescription for any special instructions for each case*****

This protocol serves as a guideline for controlled progression back to physical activity. Modifications may be made by the surgeon depending on the exact surgical procedure performed. **Extra caution needs to be given to the hip abductors during the healing process.**

Weeks 0 to 4:

Precautions:

- ROM restrictions
 - Hip flexion 30 -80 degrees
 - No external rotation (ER) past 10 degrees to reduce risk of hip dislocation
 - Hip Abduction maintained at 10 degrees and to be completed only passively
 - Strong contraction of the gluteus medius can put too much tension on the surgically fixed greater trochanter
- In certain cases, utilize Multi Podus boot (MPB) with kick stand to prevent ER of the involved hip and to promote neutral alignment of the ankle
- Weight-bearing: TTWB
- No hip abductor activation
- No formal outpatient PT until surgical follow-up (typically at 4 weeks)

Goals:

- Patient and parent education prior to discharge from inpatient stay
 - ROM restrictions
 - Exercise program – Instruct and educate patient and family on exercises listed below for first month post-op or until follow-up with surgeon
 - Mobility
 - Out of bed to chair once epidural is removed (usually 2 days post-op). Patients who do not receive an epidural are typically cleared for out of bed on day 1 post-op
 - Review use of assistive device to maintain TTWB for at least 4 weeks from surgery (bilateral axillary crutches or walker)
 - Caregiver training for assistance with mobility
 - Positioning – For comfort and to promote neutral alignment at lower extremities
 - Equipment needs
 - Multi Podus boot(s) - case dependent
 - Assistive device for mobility – bilateral axillary crutches/walker
 - CPM as indicated by surgeon
 - Knee CPM 4-6 hours per day. Parameters determined by surgeon. Goal is to promote 30-80 degrees of hip flexion
 - Other considerations based on patient presentation
 - Rental wheelchair (reclining back versus standard)
 - Shower chair and/or adjustable height (3 in 1) commode, which can be used as both commode and shower chair
- Functional mobility
 - Transitional movements – assess mobility in standing once cleared by surgeon
 - Normalize gait with assistive device

- Patient compliance with activity modification

Interventions:

- Gait Training
- Isometric quad/hamstring sets
- Short arc quad
- Ankle pumps
- Seated calf raises (consider hip flexion ROM precautions)
- Abdominal bracing supine
- Home exercise program

Patient should continue to use CPM, MPB, assistive device (axillary crutches/walker) and complete HEP until follow-up appointment with surgeon

Weeks 4 to 8: (Initial PT evaluation after follow-up with surgeon, typically at 4 weeks post-op – to advance HEP)

Precautions:

- ROM restrictions often removed at first surgical follow-up
- No antigravity hip abduction until after 8 weeks from surgery
- Weight-bearing: TTWB→WBAT with crutches after 4 weeks, unless instructed otherwise by surgeon
 - Gradually wean to one crutch once permitted to begin WBAT
 - Wean from assistive device once ambulating with good symmetry – no trunk lean or pelvic drop
 - Start with household distances, progress to community/school distances

Goals:

- Initiate gluteus medius isometrics

Interventions (in addition to those listed in previous weeks):

- Gait training
- ROM/Flexibility:
 - Heel slides (knee/hip flexion AAROM)
 - Bent knee fall outs
 - Stool hip rotations: internal and external rotation
 - Initiate stationary bike with elevated seat and no resistance
- Strength
 - Gluteus medius isometrics
 - Long arc quads/seated resisted hamstring curl
 - Abdominal bracing: supine and prone
 - Double-leg squats, bridges and heel-raises (once cleared to progress to WBAT)
- Aquatics (as available, if surgical incision has healed): chest deep or waist deep water (no greater than 50% weight bearing); patients may begin walking (forward/backward, sidestepping) and standing therapeutic exercises
- Scar Mobilization/Massage – caution that position of screws often leads to some persistent trochanteric tenderness

Weeks 8 to 12:

Precautions:

- Continue to monitor for hip abductor tendinitis

Goals:

- Normalize Gait
- Obtain functional hip ROM
- Initiate antigravity hip abduction after 8 weeks
 - Gradually progress with resistance as tolerated
- Improve core strength, lower extremity muscle strength and balance/proprioception

Interventions (in addition to those listed in previous weeks):

- Continue ROM exercises as needed
- Low impact aerobic endurance exercise (stationary bike, elliptical, walking program)
- Isolated strengthening:
 - Hip 4 way with abdominal bracing
 - Hook-lying resisted clamshell
 - Knee extension/hamstring curls
 - Core strengthening
- Functional strengthening:
 - Bilateral → unilateral squats, leg press, bridges, heel-raises
 - Step-ups, lateral step down, lunges, side stepping with band (at knees, low resistance)
- Balance/proprioception

Weeks 12 to 16:

Precautions:

- Continue to monitor for hip abductor tendonitis

Goals:

- Progressive functional strengthening
- Incorporate core stability with single limb activities
- Restore/improve baseline single-leg balance and motor control with functional activities

Interventions (in addition to those listed in previous weeks):

- Increase low impact aerobic endurance with stationary bike, elliptical, or walking program (speed, duration, resistance levels)
- Progress functional strengthening exercises as tolerated, with good neuromuscular control (increase sets/repetitions, speed, resistance/weights, varying surfaces)
- Advance hip/core strengthening exercises (incorporate into functional strengthening)
- Improve single – leg balance (static/dynamic, various surfaces, eyes closed)

CRITERIA TO ADVANCE

- Surgeon clearance
- Symmetric gait pattern
- Bilateral hip strength of $\geq 75\%$ limb symmetry for isometric/isokinetic hip strength
- Lateral step-down test (Set step height to achieve $\sim 60^\circ$ knee flexion): $\leq 3/6$ errors
- Y balance test (anterior reach only): ≤ 4 cm difference as compared to uninvolved limb

Weeks 16 to discharge:

Precautions:

- No contact sports for at least 6 months

Goals:

- Initiate return to running progression once above criteria have been met
- Initiate jumping (double-leg to single-leg)
- Improve neuromuscular control and dynamic stability
- Improve muscular strength, power and endurance
- Begin gradual and progressive sport specific activities
- Prepare athlete for unrestricted return to sport progression

- Promote sport specific fitness

Interventions (in addition to those listed in previous weeks):

- Advanced lower extremity/core strength and balance/proprioception exercises
- Running Progression
 - Gradually advance with straight ahead running on level surfaces/treadmill
 - Focus on a pain free and symmetrical gait pattern
- Plyometric Progression
 - Begin with double-leg jumps, focusing on soft/symmetrical landings
 - Progress double-leg jumps (height / distance, multiple jumps in same direction, varying surfaces, hopping over/onto objects)
 - Advance to single-leg jumps once patient demonstrates good and symmetrical neuromuscular control with all double-leg jumping and single-leg squats (progress to multi directional when appropriate)
- Sport specific cutting/pivoting drills
- High intensity aerobic/anaerobic sport specific training
- Educate on final home exercise program and injury prevention program
- Gradually advance back to sport/full activity after meeting criteria below

CRITERIA FOR RETURN TO SPORT/FULL ACTIVITY

- **Surgeon clearance**
- **Symmetric and full hip strength** at $\geq 85\%$ limb symmetry for isometric/isokinetic hip strength testing
- **Lateral step-down test (Set step height to achieve $\sim 60^\circ$ knee flexion):** $\leq 2/6$ errors
- **Y balance test (all directions):**
 - Composite score $\geq 90\%$ (each side)
 - ≤ 4 cm difference for anterior reach, ≤ 6 cm difference for posteromedial and posterolateral reach as compared to uninjured limb
- **Functional hop testing battery:** $\geq 85\%$ limb symmetry, pain free and good neuromuscular control

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This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process.