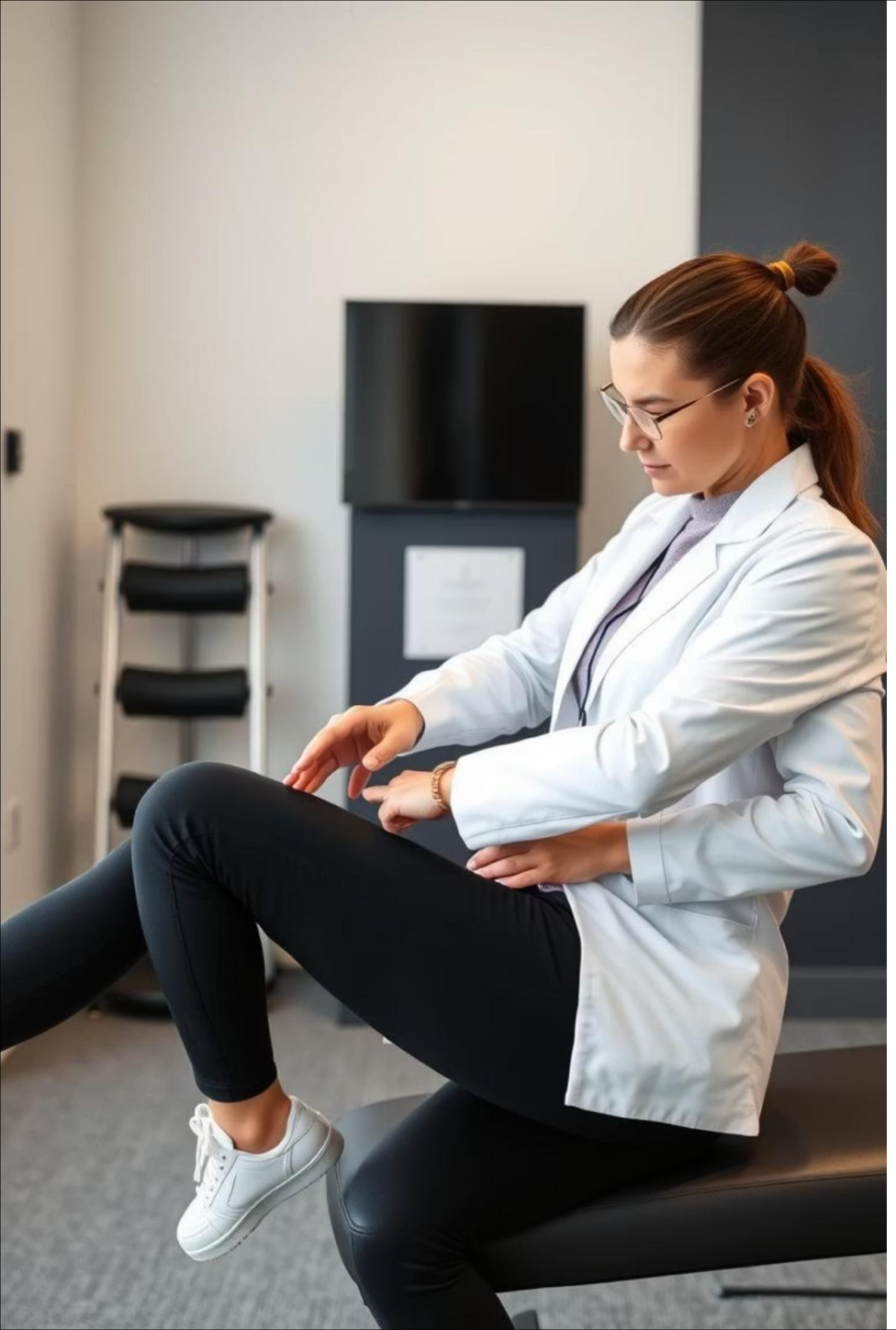


Physical Therapy Management of Hip Dislocation

Understanding the critical role of physical therapy in recovery from hip dislocation, focusing on both traumatic and prosthetic cases. Our goal is to restore function, prevent re-dislocation, and minimize complications for optimal patient outcomes.

Epidemiology and Classification

Traumatic Hip Dislocation

90% posterior, often due to high-energy trauma (e.g., motor vehicle accidents).

- Most common in young adults.

Prosthetic Hip Dislocation

1-3% after primary Total Hip Arthroplasty (THA).

Up to **10-15%** after revision THA.

- More prevalent in older adults.

Initial Management and PT Entry

Immediate Closed Reduction

Crucial within 6 hours to significantly reduce the risk of Avascular Necrosis (AVN).

Post-Reduction Imaging

Confirms concentric reduction and evaluates joint stability. Important for guiding subsequent PT.

Early PT Initiation

Physical therapy begins promptly, tailored to the specific injury type and hip stability.

Patient Education

Crucial for preventing re-dislocation, especially for posterior approach (avoid flexion >90°, adduction, internal rotation).

Acute Phase PT (Weeks 0-6)

Pain & Edema Control

Focus on managing immediate symptoms to facilitate early mobility. Ice and gentle compression often applied.

Protected ROM

Early range of motion exercises within physician-approved limits (e.g., flexion <70° for posterior dislocations).

Muscle Activation

Initiate isometric exercises for key muscle groups like gluteals, quadriceps, and core stabilizers.

Patient Education

Reinforce weight-bearing status (often non-weight bearing or touch-down weight bearing) and precautions.

Example Exercises: Glute sets, quad sets, ankle pumps (10-15 reps, 3 sets per day).

Subacute/Rehabilitation Phase PT (Weeks 6-12+)

This phase focuses on progressive strengthening, proprioception, and gait training, aiming for a gradual return to functional activities.

1

Progressive Strengthening

Gradual increase in resistance and complexity for hip abductors (e.g., side-lying leg raises) and extensors (e.g., glute bridges).

2

Proprioception & Balance

Incorporate exercises like single-leg stance and unstable surface training to improve joint awareness and stability.

3

Gait Training

Transition from partial to full weight bearing, focusing on normalized gait patterns and endurance.

4

Functional Return

Integrate exercises mimicking daily activities, such as mini-squats, step-ups, and heel-to-toe walking.

Advanced Rehabilitation and Return to Function

This phase prepares patients for sport-specific activities, focusing on agility, power, and long-term injury prevention.

1

Plyometric Exercises

If appropriate: Introduce explosive movements like box jumps and broad jumps to build power and reactivity.

2

Agility Drills

Incorporate drills such as T-drill and cone weaving to improve quick changes in direction and coordination.

3

Progressive Resistance

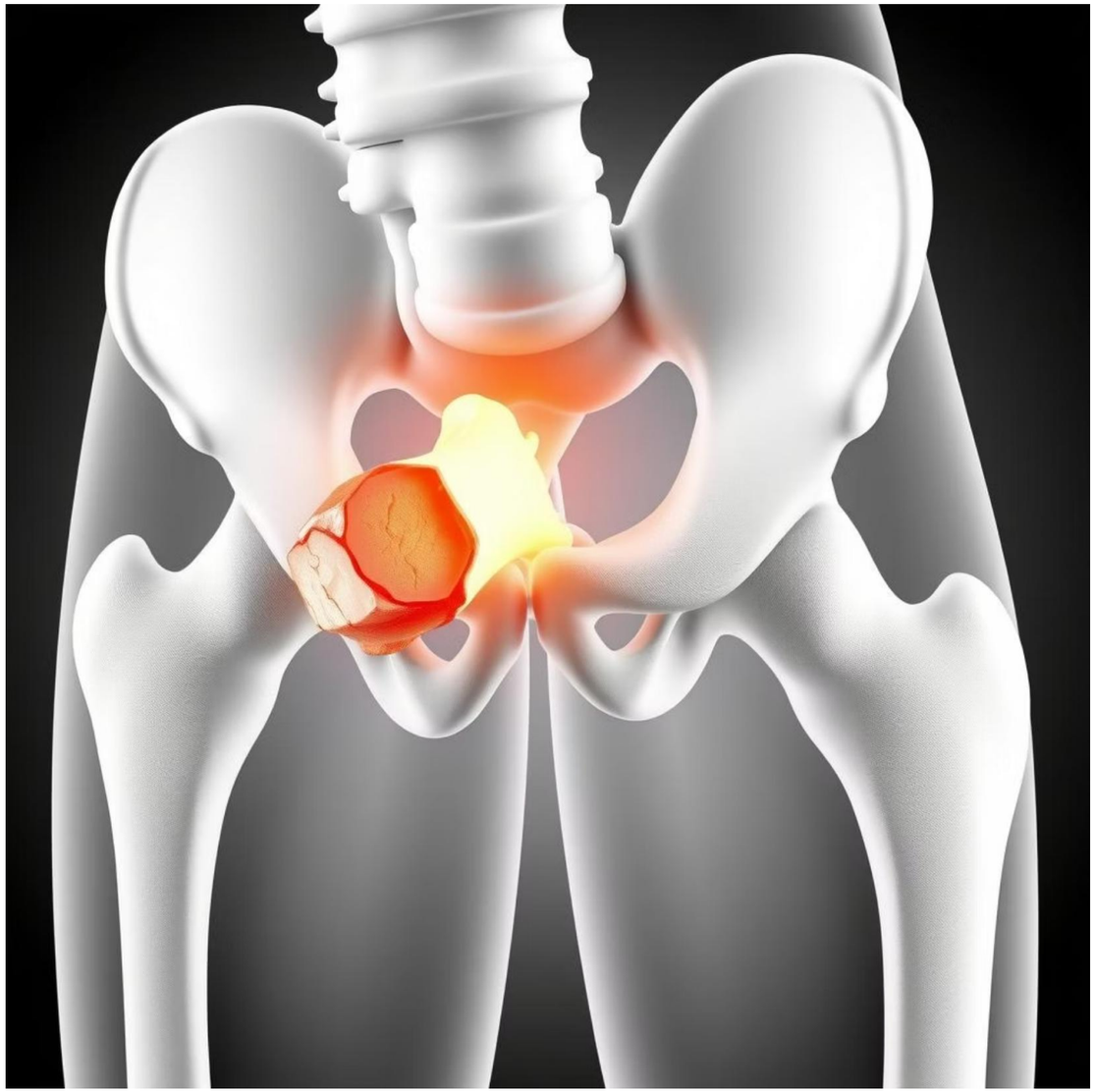
Target global lower extremity strength with increasing resistance, ensuring symmetrical muscle development.

4

Return Criteria

Full pain-free ROM, symmetrical strength (>90%), and dynamic stability are key for safe return to activity/sport.

Potential Complications and Considerations



Avascular Necrosis (AVN): Occurs in 5-15% of traumatic dislocations; delayed reduction significantly increases risk.

Sciatic Nerve Injury: Present in 8-20% of posterior dislocations, typically temporary with good prognosis.

Post-Traumatic Arthritis: Up to 50% risk, especially if cartilage damage occurred during dislocation.

Re-dislocation: Varies (1-3% for traumatic, 2-7% for prosthetic), influenced by patient compliance and muscle strength.

Heterotopic Ossification: Can develop in 1-10% of cases, potentially limiting range of motion.

Conclusion and Long-Term Outlook

> *Comprehensive physical therapy is vital for optimal recovery and effective complication prevention after hip dislocation.*

Patient Adherence: Emphasize compliance with precautions and the home exercise program for successful outcomes.

Long-Term Monitoring: Essential for early detection and management of potential complications like AVN and arthritis.