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# HIP ARTHROSCOPY WITH FEMORAL NECK DEBRIDEMENT PROTOCOL

**OVERVIEW:** Patients may undergo hip arthroscopy for a variety of diagnoses, including loose body removal and debridement. Recently, new techniques have allowed arthroscopic treatment of femoroacetabular impingement. This condition involves either a mild deformity of the femoral neck or acetabulum that may lead to labral tears, cartilage breakdown and arthritis.

**OVERALL GOAL**: Brief rehabilitation with education on signs and symptoms of overuse and modification of activity to avoid pain.

This protocol is based on goal-oriented progression. Each patient is different and should be treated according to their tolerance in therapy.

Impact activity should not begin until at least six weeks post-operative (i.e. running, jumping, Stairmaster) and should be started only when the patient exhibits a nearly full passive and active range of motion of the hip. If a labral repair was performed in conjunction with the femoral neck debridement, impact activities may be delayed further. Particular attention should be paid to the improvement of passive and active internal rotation of the hip. Weight-bearing will be modified for each patient, but in general, for neck debridement only partial weight-bearing is allowed within a week after surgery and weight-bearing is limited for a month if a labral repair is performed.

I. Initial Phase:

Goals: Regain range of motion within tolerance, decrease swelling and pain, limit muscle atrophy.

A. Day of surgery:

1. Begin isometric gluteus sets and ankle pumps.

B. Post-operative days 1-7:

1. Non-weight bearing, crutch ambulation.
2. Immediate post-operative exercises:
    a. Isometric quad sets, glut sets, hamstring sets, adductor sets, abductor sets
    b. Active assisted range of motion in all planes without pain.
    c. Hip mobilization if beneficial in decreasing pain and increasing range of motion with straight distraction.
        - Inferior glide – patient supine, (hip and knee bent to 90°). Force applied at proximal anterior thigh with movement inferiorly.
        - Posterior Glide – patient supine (hip and knee bent to 90°). Force applied down through knee for posterior hip movement.
    d. Closed chain bridging, weight shifts, balancing drills.
    e. Open chain abduction, adduction, flexion, extension with resistance.
    f. Pool exercises; water resisted toning, swimming and walking drills.
3. Avoid early straight leg raises.
4. Avoid excessive flexion and abduction
5. Gentle toning exercises can begin as early as week one as long as patient is pain free and remains pain free throughout exercises.

II. Early Phase:

Goals: Regain and improve muscular strength and normalize joint arthrokinematics.

A. Post-operative weeks 2-3:

1. Continue to progress range of motion with gradual end range stretch within tolerance.
2. Begin progressive resistive exercises as tolerated:
    a. Closed chain single leg bridging.
    b. Open chain above knee resistive Thera-Band or pulley exercise in flexion, extension, adduction, abduction, hamstring curl as tolerated.
    c. Bike if tolerated, no resistance.
    d. Pool exercises.
3. No impact or repetitive twisting activities.
4. Avoid excessive flexion of abduction
5. Full Active ROM

III. Intermediate Phase:

Goals: Improve functional strength and endurance, without high impact.

A. Post-operative weeks 4-6:

1. Begin gradual progressive weight-bearing as tolerated.
2. Continue flexibility exercises.
3. Continue to progress resistive strengthening and functional strengthening exercises.
    a. Closed chain exercises as tolerated of multi-hip strengthening, hamstring curls, knee extension.
    b. Open chain activities
    c. Begin biking (recumbent ideal in first experience)

IV. Advanced Phase:

Goals: Return to functional activities and sports-specific motions.

A. Post-operative weeks 7-12:

1. Begin progression to functional activities
2. Pivoting and rotational (high impact) activities gradually introduced.
    a. No Pain
    b. Predicated on normal range of motion prior to institution of activities

B. Return to full activities weeks 8-12, as tolerated

C. Full, unrestricted sports and activities at 12 weeks.

ARTHRITIC PATIENTS:  DO NOT PUSH TO GAIN MOTION. Limited pain free motion is acceptable.

Protocol Adapted from Carlos Guanche, MD, Southern California Orthopedic Institute