

Femoral Acetabular Impingement (FAI) **Non/pre-operative protocol**

Phase 1

Goals:

- Reduce/eliminate aggravating factors:
 - Running or cycling
 - prolonged sitting at 90° flexion
 - yoga or aggressive hip stretching
- Activity is only modified if it aggravates the patient symptoms

Evaluation:

- Screen past medical history and current symptoms of lower back pathology
- Evaluate both bilateral and unilateral squatting for dynamic internal femoral rotation, valgus knee and pronation at the foot. This medial cascade can contribute to and predispose the patient to FAI.

Muscular balance restoration:

- These patients will typically have significant weakness in the hip abductors and extensors demonstrated both with open and closed chain testing. They will demonstrate hip flexor dominance and will commonly have a positive Thomas Test.
- It is important to mobilize restricted soft tissue; strong attention must be given to the glut med/max, iliopsoas, rectus femoris and piriformis. The hip adductors, VL and ITB, posterior tibialis and ITB will typically need work as well.

Phase I exercises:

- Pelvic tilts
- Double leg bridge
- Clam shell
- Side lying hip abduction
- Hip extension off physioball
- Elliptical trainer
- Self soft tissue techniques using foam roller or massage stick

Phase 2

Exercise progression:

- Pelvic tilts
- Double leg bridge
- Single leg bridge
- Side lying abduction

- Side lying adduction
- Quadruped hip extension leg straight
- Standing resisted hip abduction
- Bilateral squats *it is good to have the patient perform CKC exercises with the shoes off to emphasis proper motor control from the foot to the hip
- Step up progression with emphasis on proper knee alignment
- Bilateral calf raises with emphasis on proper push off
- Hamstring and calf stretching
- Avoid aggressive hip flexor stretching
- Elliptical trainer
- Swimming
- May add stationary bike as tolerated

Manual treatment:

- Continue with manual soft tissue and joint mobilizations as indicated
- Continue with self soft tissue work with foam roller and massage stick

Phase 3

Exercise progression:

- Continue with phase 2 progression
- May add more abdominal work with dead bug progression
- Add unilateral squat, dip, or reverse lunge progression
- Unilateral calf raises with emphasis on proper push off mechanics
- Add weight to squats. May also include leg press and hamstring curls
- May be more aggressive with hip ER and hip flexor passive stretching
- For impact athletes begin basic ladder series
- Continue with self manual maintenance work with foam roller and massage stick

Phase 4

Exercise progression:

- Continue with phase 3 progression
- Add walk or spit lunges
- Advance ladder series to include jumping
- Plyometric progression
- Begin linear and lateral running with progression to multidirectional drills as tolerated
- Begin drills on field/court as symptoms allow
- Return to full activity