ADVANZ HEALTH

SPORTS MEDICINE | PHYSIOTHERAPY

FEMORO-ACETABULAR IMPINGEMENT (FAI) AND LABRAL REPAIR

REHABILITATION PROTOCOL

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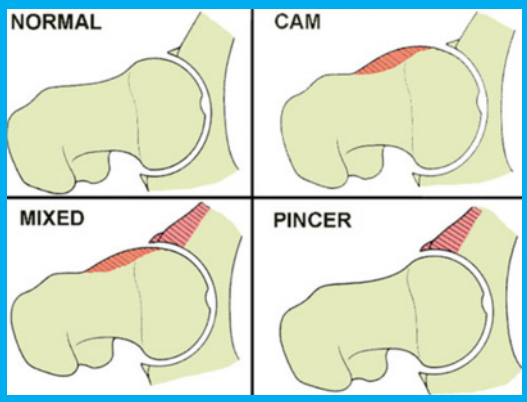
FEMORO-ACETABULAR IMPINGEMENT (FAI) AND LABRAL REPAIR

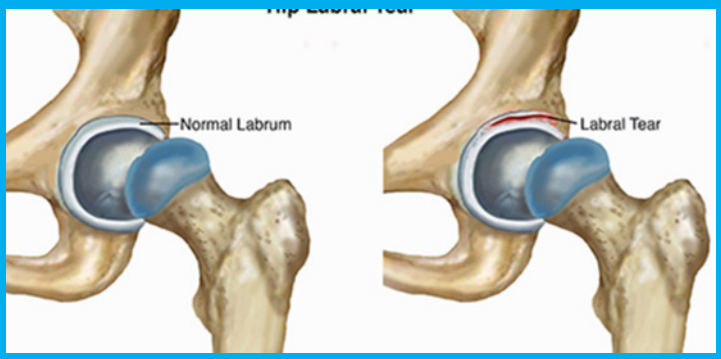
Femoro-acetabular impingement is a condition resulting from the irregularity of bone growth (spurs) within the hip joint. The hip is a “ball and socket” joint, where the ‘socket’ is formed by the acetabulum, within the pelvis, and the ‘ball’ is the head of the femur (thigh bone).

FAI can be due to two different types of bony abnormality within the hip joint. ‘Cam’ type impingement describes a bump of the femoral head (ball) which causes jamming into the acetabulum (socket). This is more common in young, athletic males.



The ‘Pincer’ type describes increased coverage of the acetabulum over the front of the femoral head. This is less common and mostly seen in middle aged women. Combination of these two would be referred to ‘mixed’ FAI.

The labrum is an extension of fibrocartilage that forms a ring around the hip socket to provide suction and protection at the hip joint. This cartilage can be damaged when FAI abnormalities are present.



Symptoms can include reduced hip range of motion (particularly hip flexion and internal rotation), catching with movement, pain with sitting and walking as well as pain after and during sport/ exercise.

CAUSE

There may be a genetic component to FAI (structural shape of the ball and socket), but it is also commonly caused by biomechanical changes in the hip such as tightness, weakness and poor movement patterns. This can become pronounced when rapid increases in activity occur (such as spikes in training load or commencing unusual lifestyle activities). Prolonged impingement can result in a torn labrum..

NONSURGICAL TREATMENT

Can include:

- Physiotherapy to correct causes of injury (tightness, weakness, poor movement patterns and technique)
- Training load management and activity modifications
- Anti-inflammatory medication (injections or oral)

PHASE 1 – ACUTE PHASE (0-2 WEEKS):

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE *(TICK WHEN COMPLETE)*
• Reduce pain and inflammation • Maintain mobility of surrounding joints • Identify causes	Avoid aggravating activities	1. **ROM and core program:** Maintain core, upper body and other leg strength and control 2. **Basic glute and pelvis control exercises** (see videos) 3. **Massage and manual therapy** from physio to reduce muscular tightness and maintain mobility	☐ Physio satisfied with progress

Please note that the below timeframes are a guide. Your surgeon or physio may request slight variations for optimum outcome.

PHASE 2 – STRENGTH PHASE (WEEKS 3-6)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE *(TICK WHEN COMPLETE)*
• Range of motion • Progress strengthening • Movement mechanics • Pain and swelling resolved	• Avoid plyometrics and agility here	1. **Strength program** on Pilates reformer and home-based (see video's) 2. **Stretching and mobility program**: 3. **Sports specific movement retraining** Individualised program designed by your physio 4. **Fitness:** stationary bike, boxing, swimming, x-trainer	☐ Normal gait (no limp) ☐ Strength >95% of non-injured leg (calf raises, single leg bridge and sit to stand) ☐ Pain resolved ☐ Full range of motion

PHASE 3 – POWER PHASE (6-12 WEEKS)

GOALS	PRECAUTIONS	RECOMMENDED PROGRAM	CRITERIA TO PROGRESS TO NEXT PHASE
• Return to sport/ activity • Restore full strength/power • Resolve all pain • Improve whole-body strength • Improve fitness • Prevent recurrence • Removal of temporary orthotic	• Avoid any activities that cause pain levels greater than 2/10 (on a scale of 0=no-pain to 10=max-pain).	1. Continue **individualised strength and stretching program** 2. **Cardio fitness:** cycling, swimming, boxing, cross-trainer (running when allowed), replicate sport. 3. **Plyometric exercises** 4. **Running rehab** See attached 5. Sports specific **skill retraining**	☐ Physio clearance ☐ Strength and power >95% of non-injured leg ☐ No pain with daily activities, sports, during/after rehab exercises ☐ Full range of motion ☐ Pre-injury fitness/ load restored (or enhanced) ☐ Biomechanical errors resolved

PHASE 1

REFORMER

- Supine: Double and single leg, arms in straps feet down
- Kneeling or seated: arms in straps (rows, ploughs)

HEP

- ROM: hip/knee/ankle ROM (Circulation exercises)
- Supine: Deep core activation (BNF), bridges (small range)
- Side lying: Squeezing heels together
- Seated or kneeling: theraband arms (rows, ploughs)
- Prone: supermans (arms only)
- Mobility on roller/ball

PHASE 2

REFORMER

- Supine: arms in straps, legs in straps (double, progress to single)
- Side lying: single leg press
- Kneeling or seated: arms in straps (rows, ploughs)
- Prone: reverse abs, planks
- Standing: skater, scooter, step ups

HEP

- Supine: Bridges, core progressions (table top with extensions, toe taps)
- Side lying: clams
- Seated or kneeling: theraband arms (rows, ploughs)
- Prone: supermans (alternating), foundation planks
- Standing: squats, toe taps, crab walks, lunges, short lunges
- Mobility on roller/ball

PHASE 3

REFORMER	HEP	HEP
• Supine/side lying: Jump board	• Jump squats, hops, side steps	• Running program – agility • Sport specific drills

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