# How to manage my hip impingement

Femero-Acetabular Impingement (FAI)



# How to manage my **hip impingement** Femero-Acetabular Impingement (FAI)

Femero-acetabular impingement (FAI) is a disorder of the hip caused by premature contact between the thigh bone and the hip socket. Pain most commonly occurs in the groin and the side of the hip, however can also present in the buttock and the front of the thigh (amongst other locations). Other symptoms include catching, locking, stiffness, restricted range of motion or giving way.

There are three different variations of FAI:

- **Cam deformity** is where there is additional bony growth on the head of the hip. Cam deformity's have a high prevalence in young, active males. The male to female ratio is 3:1.
- **Pincer deformity** is caused by an excessive prominence of the pelvic rim and is more common in middle aged, active females.
- **Mixed.** The most common classification of FAI is where people present with both cam and pincer changes.

The prevalence of FAI is high and is observed in about one fifth of the general population. Less than 25% of those affected develop pain (FAI syndrome) or osteoarthritis. It is estimated that up to 50% of all hip osteoarthritis might develop secondary to FAI. However identifying those at greatest risk of developing joint disease secondary to FAI remains a challenge (Palmer et al 2019).



# Prognosis

- FAI symptoms frequently improve with treatment such as physiotherapy: education and a graded exercise program.
- Without treatment, symptoms of FAI syndrome will probably worsen over time.
- The long-term outlook for patients with FAI syndrome is unknown.
- However, it is likely that cam morphology is associated with hip osteoarthritis.
- It is currently unknown whether treatment for FAI syndrome prevents hip osteoarthritis (Griffin et al 2016).

Palmer et al (2019) Arthroscopic hip surgery compared with physiotherapy and activity modification for the treatment of symptomatic femoroacetabular impingement: multicentre randomised controlled trial, BMJ, 364:1185 https://doi.org/10.1136/bmj.1185

Griffin et al (2016) The Warwick Agreement on femoroacetabular impingement syndrome (FAI syndrome): an international consensus statement, British Journal of Sports Medicine, 50, 1169-1176. https://bjsm.bmj.com/content/bjsports/50/19/1169.full.pdf

# **Diagnosis of FAI**



Griffin et al (2016)

## Investigations

In most cases diagnosis is usually made by the presenting symptoms and physical examination, therefore there is usually no need for further imaging. However if symptoms are not improving X-rays are useful to differentiate between FAI variations and/or osteoarthritic change. MRI may also sometimes be used for further assessment of the hip to look at the soft tissue structures in more detail such as cartilage and labrum.

# Ways to help reduce pain

### Activities/hip positions to avoid when symptoms are irritable:

- Prolonged sitting, standing and walking.
- Deep squats.
- Rotational/pivoting movements eg Martial arts/tennis.

### **Pain relief:**

- A short course of analgesia (i.e. paracetamol).
- Non-steroidal anti-inflammatory drugs (NSAIDS) such as ibuprofen are recommended for pain relief.

# It is advisable to seek advice from your pharmacist or GP to check which is best for you and your health.

# **Exercise and physiotherapy**

There is good evidence that physiotherapy can help improve hip symptoms through a targeted exercise based program. This is aimed to improve hip movement / control around the hip through strengthening of the deep hip muscles in particular. The deep muscles are important in controlling the finer movements in the hip that allow controlled movement and help the superficial hip muscles from having to overcompensate. A physiotherapist can also provide other treatments to compliment your exercise program.

### **Recommended exercises:**

### RPE=Rateofperceivedexertion(outof10)

					-		
EXERCISE	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
Pelvic tilts: Posteriorly tilting the pelvis can help improve hip movement and control.							
	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	
NOT P.	RPE:	RPE:	RPE:	RPE:	RPE:	RPE:	
	Pain:	Pain:	Pain:	Pain:	Pain:	Pain:	
<b>Isometric hold</b> : Front lying with legs apart 30 degrees and knees bent 90 degrees. Squeeze heels together for 10-15 seconds.							
	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	
the mail	RPE:	RPE:	RPE:	RPE:	RPE:	RPE:	
	Pain:	Pain:	Pain:	Pain:	Pain:	Pain:	
<b>Bridge:</b> Start with 2 legged bridge, therapist to progress to off set bridge and then to single leg bridge.							
	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	
	RPE:	RPE:	RPE:	RPE:	RPE:	RPE:	
	Pain:	Pain:	Pain:	Pain:	Pain:	Pain:	
<b>Side lying hip abduction:</b> Therapist to progress to adding resistance or to side plank hip abduction).							
	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	Reps/ sets:	
Ser La	RPE:	RPE:	RPE:	RPE:	RPE:	RPE:	
	Pain:	Pain:	Pain:	Pain:	Pain:	Pain:	

Some people with FAI might progress with a targeted exercise program and return to previous level of function, while others may not. However, if symptoms do not improve through conservative means then surgical intervention may be appropriate which has also been shown recently to provide favourable outcomes (Palmer et al 2019).

Subject: How to manage hip impingement	Owner: Lead Therapist	Document No.2249
Effective Date: 06/2019	Version: 1.0	Next Review: 06/2022