

# Sports Medicine Roadshow 2019

Course Convener: Mr Patrick Carton MD FRCS Course Coordinator: Mr David Filan UPMC Event Manager: Ms Claire Phelan

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# Conservative Management and Outcome of Femoroacetabular Impingement.

Mary Gleasure MISCP, Post Grad IOC, ESSKA Member

Chartered Physiotherapist, Clinical Specialist in Sports Physiotherapy



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Current trends in sport and exercise hip conditions: Intra-articular and extra-articular hip pain, with detailed focus on femoroacetabular impingement (FAI) syndrome

Joanne Kemp<sup>a, \*</sup>, Alison Grimaldi<sup>b</sup>, Joshua Heerey<sup>a</sup>, Denise Jones<sup>a</sup>, Mark Scholes<sup>a</sup>, Peter Lawrenson<sup>c</sup>, Sally Coburn<sup>a</sup>, Matthew King<sup>a</sup>

<sup>a</sup> Latrobe Sport and Exercise Medicine Research Centre, La Trobe University, Plenty Road, Bundoora, Vic, 3086, Australia
<sup>b</sup> Physiotec, 23 Weller Rd, Tarragindi, Qld, 4121, Australia

<sup>c</sup> University of Queensland, St Lucia, Queensland, Australia

Keywords: Hip pain Femoroacetabular impingement syndrome Rehabilitation Assessment Exercise

#### ABSTRACT

Musculoskeletal conditions, such as hip pain are leading causes of pain and disability. Hip pain is the second most common cause of lower limb musculoskeletal pain, and is commonly seen in active individuals. Hip and groin pain may have intra-articular and extraarticular causes. Femoroacetabular impingement (FAI) syndrome and the associated pathologies are common intra-articular causes of hip and groin pain in active individuals. There are also a number of extra-articular causes of pain, which include musculotendinous conditions, extra-articular impingements and the clinical entities of groin pain described in the Doha agreement. This chapter will describe these, with a detailed focus on FAI syndrome. Specifically, it addresses: 1. What is and what causes FAI syndrome; 2. How do I diagnose FAI syndrome; and 3. What is the evidence-based approach to managing FAI syndrome?

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## Subjective Assessment

PainSeverity, Quality & Intensity

Screen Red Flags Cancer, Infection

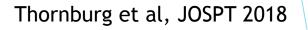
**Training Load** - Frequency, Intensity, duration ratio to Recovery.

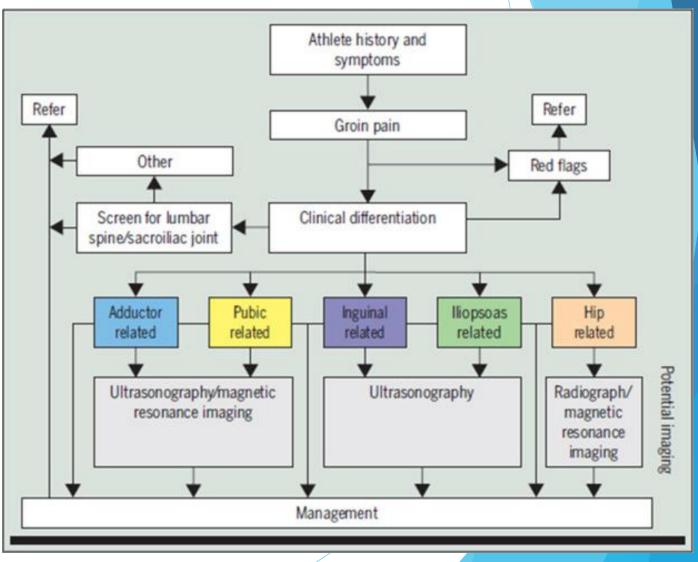
**Sport Specific Training** - Drills requiring kicking and twisting

**Strength and Conditioning** - Deep squats, squat jumps, twisting with Load

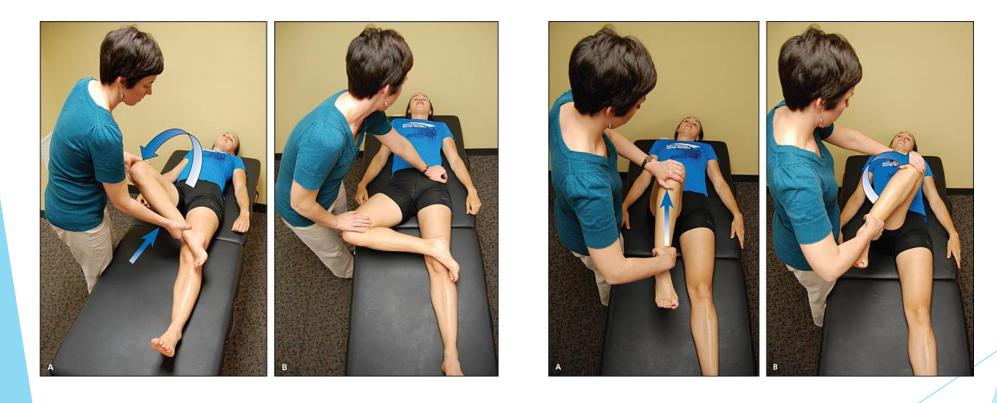
**Postural** - Sitting and standing in anterior pelvic tilt

Validated Scores - Hip Harris, WOMAC, UCLA, HAGOS & HOS





# Impingement Tests Faber Fadir



# Early stage Treatment



Brukner, P., Bahr, R., Blair, S., Cook, J., Crossley, K., McConnell, J., . . . Khan, K. (Eds.). (2012). Clinical sports medicine (4th ed.). Sydney: McGraw-Hill.

- Avoid manual techniques
- Isometric exercises
- Education
- Pool based session to offload Hip Joint
- Offload anterior superior aspect of hip
- Avoid extremes of movement
- Anti-inflammatories

# Manual Therapy

Superficia

STM AND TPT :

llopsoas,

Adductors

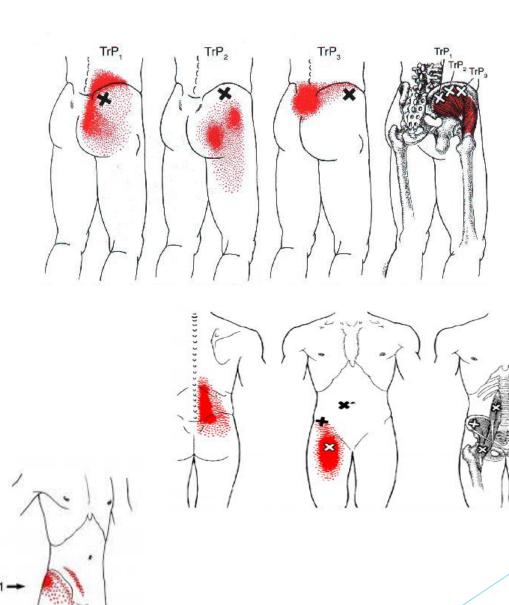
Piriformis

Hamstrings,

Rectus femorus

TFL

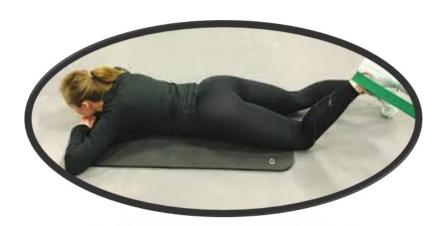
Erector spinae



#### CLINICAL COMMENTARY

JOSH HEERET, PT: + IMAT ARNA RISBERG, PT. PHD<sup>1</sup> + JANOCKE MAGNUS, PT. MSc<sup>1</sup> + HÅVARD MOKSNES, PT. PhD<sup>1</sup> THOMAS BODGAARD, PT<sup>1</sup> + JKRY CROSSLEY, PT. PHD<sup>1</sup> + JOANNELL KEMP, PT. PHD<sup>1</sup>

Impairment-Based Rehabilitation Following Hip Arthroscopy: Postoperative Protocol for the HIP ARThroscopy International Randomized Controlled Trial





### Balance

## **Hip Strength**

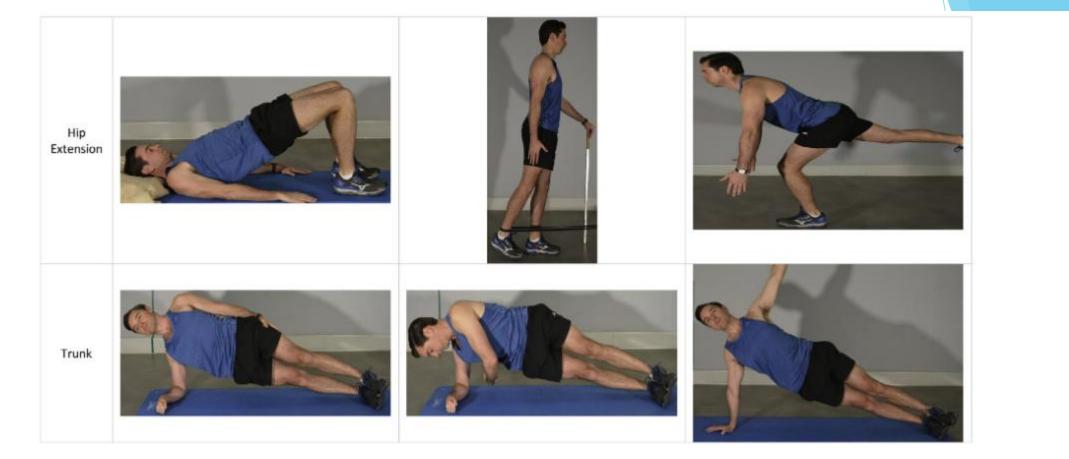
### Star Excursion Balance Test Hand Held dynamometry

Hatton et al, ACR 2014

#### Heerey et al, Br J Sports Med 2018







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5. Progressive hip extensor and trunk strength examples. Exercise program should be progressed on an individual basis. Progression to the next level can be determined by successful apletion of the previous level (VAS <20 mm and Borg Rate of Perceived Exertion  $\leq$ 5 (moderate)). Exercises dosage can be targeted to improve strength hypertrophy (three sets of 6–8 etitions, at 6–8 RM).

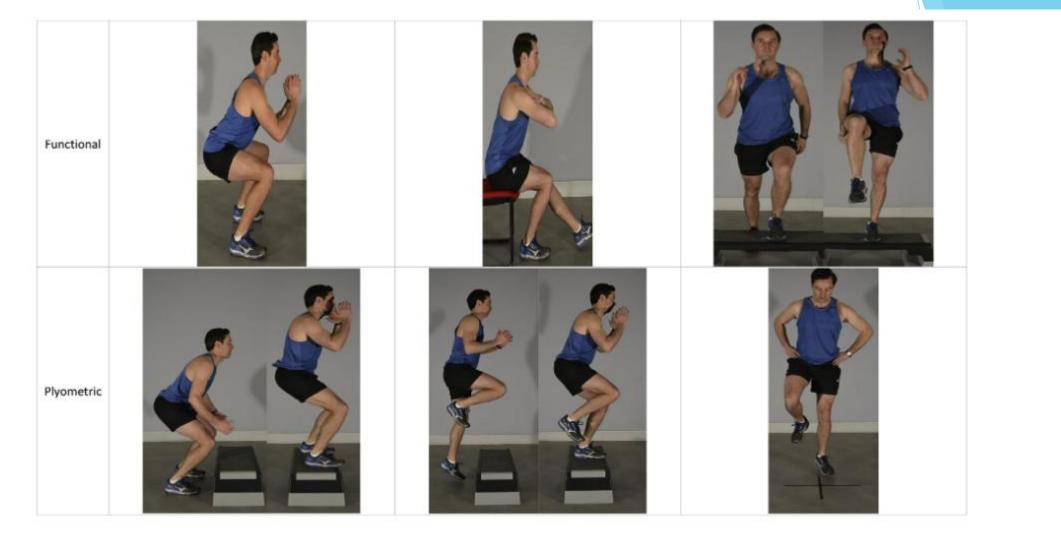


Fig. 6. Progressive hip functional strength and plyometric examples. Exercise program should be progressed on an individual basis. Progression to the next level can be determined by successful completion of the previous level (VAS <20 mm and Borg Rate of Perceived Exertion  $\leq 5$  (moderate)). Exercises dosage can be targeted to improve strength hypertrophy (three sets of 6–8 repetitions, at 6–8 RM).

### Education

- Aspeter Hip and groin conference 2016
- Sportship.com
- Avoid poor instagram info



### **Cardiovascular Loading**

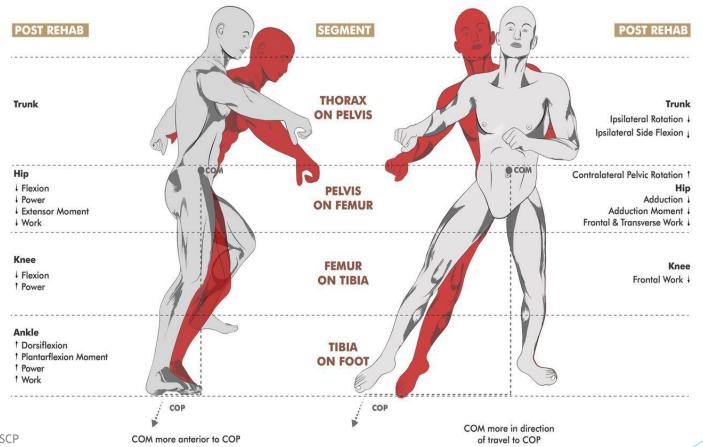
- Cycling -stationary or road
- Swimming
- Aqua jogging- caution kicking
- Walking flat terrain
- Cross trainer
- Level 1= 10 minutes alternate days
- Progress to 1hour (3 times a week)

# **Biomechanical changes in cutting mechanics after rehabilitation** (grey figure).

E King et al. Br J Sports Med 2018;52:1054-1062

SAGITTAL

FRONTAL / TRANSVERSE



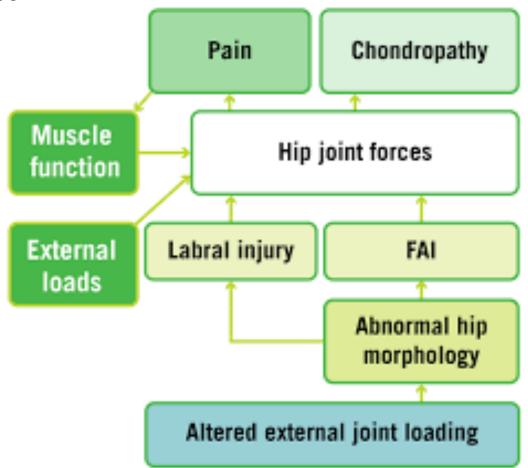
### The 2016 Warwick Agreement

Griffin DR, et al. Br J Sports Med 2016;50:1169-1176. doi:10.1136/bjsports-2016-096743



# The relationship between FAI, Hip pain, Hip Joint forces and load -modification

J. Kemp, 2016





# **Youth Athletes**

- Team education- train smart
- Reduce excess kicking, twisting, deep squats
- Cross Training
- Recovery
- Integrate trunk and hip strengthening
- Emotional support

### Take Home message



Optimise Hip loads using current knowledge of impairment

Shared decision making process

Individualised Rehab programmes required (Non-op, pre - op and post Op) for 12 months

# Thank You

Mary Gleasure MISCP

info@carberyphysiotherapy.ie



### SPORTS MEDICINE ROADSHOW

WIT Arena, Waterford 23<sup>rd</sup> October 2019