

MASTERING MOVEMENT OF THE HIP & PELVIS

Do you have a clear understanding of when, why and how to assess and address muscle dysfunction around the hip and pelvis, in order to optimise and expedite patient outcomes?

Do you find yourself prescribing the same exercises for every hip & groin pain patient, regardless of their presentation?

Do your patients perform the same program for weeks or months without progressions or an understanding of what they are attempting to achieve and why?

Would you like to have a deeper understanding of muscle function and dysfunction, allowing you to optimise outcomes from therapeutic exercise around the hip?

Movement patterning and muscle function around the hip and pelvis are key considerations for any lumbopelvic or lower limb problem and may even impact on upper limb function. Assessment and retraining in this region require a specific and targeted approach that should consider the multifaceted requirements for optimal function and the limitations of an individual's musculoskeletal system.

With respect to current practices around muscle testing and exercise prescription, often strength is the only consideration. While this is an important consideration, normal results on strength testing may be returned from a muscle synergy within which significant dysfunction exists. If weakness is not the primary deficit, generic strengthening may worsen rather than improve the situation by reinforcing poor recruitment strategies or imbalance in the contribution of muscles within a movement synergy e.g., TFL within the abductor synergy.

In exercise literature, often maximal EMG is the sole indicator used for exercise selection. EMG levels are not reflective of force generation and high levels of EMG may simply reflect active insufficiency where the muscle is not at an optimal range to generate force efficiently. This premise also assumes that maximal recruitment is optimal for muscle retraining and musculoskeletal health. While higher EMG levels may be required for enhancing strength or more particularly for hypertrophy, other factors should be considered.

Choosing an exercise with highest %MVC

- in a disadvantageous length-tension relationship
- while encouraging poor recruitment patterning and efficiency
- with high load imposed on underlying joints or soft tissues

may not be in the best interests of achieving optimal or painfree function.

This course aims to:

- Enhance clinical reasoning, and skills for development of therapeutic exercise for the hip & pelvis
- Challenge participants to re-examine their own clinical practiced in the light of the presented evidence base
- Stimulate new thought & provide direction for those who may be interested in contributing to the research base that is shaping contemporary clinical practice in this field.

Learning Objectives:

Upon completion of this course, participants should be able to:

- Perform a multifaceted assessment of muscle function for each group of synergists around the hip – hip flexors, abductors, extensors, external rotators and adductors, using standardised, objective measures
- Determine the most appropriate exercise approach to target specific impairments in:
 - a. Muscle size & strength
 - b. Muscle endurance – global or regional
 - c. Power, rate of force development, plyometric ability, agility
 - d. Neuromotor function - kinematic and muscle recruitment patterns
- Progress an exercise program in an appropriate & timely manner, using key markers for exercise effect & tolerance.

ONLINE LEARNING COMPONENT

The substantial theoretical component of this course is presented in an online learning format for your flexibility and optimal learning experience.

- 4.5 hours of PowerPoint lectures with printable notes.
- Learn anywhere, at your own pace, in your own time.
- Rewind and revise as many times as you like.
- Online forum for discussion.
- Self-assessment quiz.
- 3 months of unlimited access to video content

The content of this online component covers:

- Detailed review of functional anatomy of hip & pelvic musculature
- Changes in muscle function associated with joint pathology & unloading
- Implications for prescription of therapeutic exercise

MASTERING MOVEMENT OF THE HIP & PELVIS

PRACTICAL WORKSHOP (1 Day)

The one-day practical workshop will provide opportunity to develop skills in:

- Assessment of the different aspects of muscle function for each group of synergists around the hip – hip flexors, abductors, extensors, external rotators and adductors, using standardised, objective measures
- Development of a therapeutic exercise program that addresses specific dysfunction within a muscle synergy while considering
 - Optimal efficiency and load-sharing within a muscle synergy and across the kinetic chain
 - Impact on health of musculoskeletal tissues such as the underlying joint, local tendons and transiting nerves
 - Specific needs of the individual
 - Individual morphology or pathology

ANTERIOR HIP & GROIN PAIN CONTEMPORARY DIAGNOSTIC & MANAGEMENT STRATEGIES

Do you find yourself using the same management approaches for patients with hip pain, regardless of their presentation?

Do you have a clear understanding of how morphology, loading patterns and muscle dysfunction may be driving anterior hip and groin pain?

Would you like to increase your skills and confidence in your assessment and management of anterior hip and groin pain?

Look forward to seeing patients with hip pain on your list!

An exploration of the available anterior hip and groin pain literature reveals a minefield of inconsistent diagnostic labels and a high volume of imaging and surgical papers describing a myriad of pathologies which may or may not be associated with a patient's presenting signs and symptoms. In recent years there have been some positive advances in defining clinical entities and diagnostic processes. Yet there is a persistent lack of clarity and evidence around best management. This may be related to undue focus on remediating a particular structural pathology or physical impairment, without adequate consideration of mechanisms or drivers of pain and load intolerance.

Within the contemporary biopsychosocial model, health professionals acknowledge that patients may present with varying combinations of psychological and physical overload. While the psychosocial components of management are of high importance, these will not be addressed in detail within this forum, but much education is widely available on this topic. The primary focus will be on understanding and addressing mechanisms of physical overload and impairments associated with anterior hip and groin pain.

This course aims to:

- Enhance clinical reasoning, and skills for assessment of nociceptive sources, clinical entities and drivers associated with anterior hip & groin pain
- Provide a framework for development of optimally effective, targeted interventions for each individual that considers
 - Morphological variants & implications for load management advice, exercise therapy and manual therapy
 - Adverse joint or soft tissue loading associated with kinematics and neuromotor function
 - Individual goals and functional demands
- Provide opportunity to practice some useful manual therapy and nerve mobilisation techniques

Learning Objectives:

Upon completion of this course, participants should be able to:

- Perform diagnostic tests for anterior hip and groin pain and use that information for differential diagnosis of the most likely source of nociception or a primary clinical entity
- Perform tests that aim to elicit important information regarding potential contributors or drivers of the presenting condition, such as:
 - bony morphology
 - joint range-of-motion & stability
 - neurodynamics
 - posture & key movement patterns
- Determine the most appropriate management approach for an individual's presenting condition using:
 - a. Key information from the patient interview & physical examination
 - b. Treatment direction tests
 - c. Clinical reasoning
 - d. Load management strategies
 - e. Exercise therapy
 - f. Manual therapy and nerve mobilisations as appropriate

ONLINE LEARNING COMPONENT

The substantial theoretical component of this course is presented in an online learning format for your flexibility and optimal learning experience.

- 5 hours of PowerPoint lectures with printable notes.
- Learn anywhere, at your own pace, in your own time.
- Rewind and revise as many times as you like.
- Online forum for discussion.
- Self-assessment quiz.
- 3 months of unlimited access to video content

The online component will:

- Clarify definitions of anterior hip and groin pain
- Explore factors which may influence intra-articular hip joint loads
 - morphological variants (eg FAI, acetabular dysplasia, femoral version, capsulo-labral deficits)
 - adverse joint loading associated with kinematics and neuromotor function
 - the adequacy of joint protection mechanisms
- Explore factors which may influence extra-articular loads in the anterior hip region
 - morphological variants (eg. AHS/Subspine Impingement)
 - adverse soft tissue loading associated with kinematics and neuromotor function (focus on hip flexors)
- Provide an overview of key load management and therapeutic exercise strategies for anterior hip pain, particular to the patient presentation and associated difficulties with mechanical load transfer.
- Provide an update on groin pain clinical entities and where the literature sits with regard to prevention and management.

PRACTICAL WORKSHOP (1 Day)

The one-day practical workshop will include:

- Diagnostic, pain provocation tests for intra & extra-articular sources of nociception
- Assessment of bony morphology, joint stability and neurodynamics
- Assessment of posture & key movement patterns for specific pain & load intolerance presentations
- Examples of treatment direction tests (passive & active) & clinical reasoning strategies to determine best approach for reducing pain & improving load tolerance for the patient's specific presentation
- Load management advice & key exercise strategies for specific presentations
(Please Note – this course will not include detailed muscle assessment and retraining strategies. That information is provided in the Mastering Movement of the Hip & Pelvis course, which can then be applied in this course to specific conditions and clinical presentations)
- Manual therapy – some useful techniques for specific range gaining and improving painfree ROM will be demonstrated

LATERAL HIP & BUTTOCK PAIN CONTEMPORARY DIAGNOSTIC & MANAGEMENT STRATEGIES

Do you have a list of possible diagnoses that jump to mind when someone presents with lateral hip or buttock pain? Do you consider posterior joint stability, extra-articular impingements of the lesser or greater trochanter or peripheral nerve entrapments?

What is your strategy for working through the differential diagnoses and which subjective and objective markers determine your pathway towards each particular diagnosis?

Once you have determined the most likely diagnosis, are you also able to identify and develop a plan to address the most potent drivers for each individual's presentation?

Would you like to increase your skills and confidence in your assessment and management of lateral hip and buttock pain?

Lateral hip and particularly buttock pain can often present a diagnostic dilemma. The lumbar spine and sacroiliac joints may refer into these regions; intra-articular hip pathologies may be accompanied by lateral hip and/or buttock pain; local soft tissues and neural structures may be primary sources of nociception.

The first step is determining the most likely contributors to the patient's pain presentation. Developing an optimal management program with positive effects past the short term, will also require an evaluation of physical & psychological drivers.

Intrinsic & extrinsic factors should be considered within the overall context of workload. While non-modifiable factors (e.g. bony morphology) are by nature unable to be modified, awareness of these factors can be integral to providing advice and interventions (active or passive) that 'do no harm' and development of strategies that allow maximal function with minimisation of adverse effects.

This course aims to:

- Enhance clinical reasoning, and skills for assessment of nociceptive sources, clinical entities and drivers associated with lateral hip & buttock pain
- Provide a framework for optimally effective, targeted interventions that consider
 - Morphological variants & implications for load management advice, exercise therapy and manual therapy
 - Adverse loading associated with kinematics and neuromotor function
 - Individual goals and functional demands
- Provide opportunity to practice useful exercise therapy and nerve mobilisation techniques

Learning Objectives:

Upon completion of this course, participants should be able to:

- Perform diagnostic tests for lateral hip and buttock pain and use that information for differential diagnosis of the most likely source of nociception or a primary clinical entity
- Provide evidence-based load management and exercise strategies for lateral hip pain
- Assess and develop management strategies for posterior hip joint instability
- Recognise occurrence of and potential drivers for extra-articular impingements such as ischiofemoral and greater trochanteric impingement
- Develop management strategies for these extra-articular bony impingements
- Differentially diagnose ischial pain, including diagnostic tests for proximal hamstring tendinopathy
- Apply neurodynamic assessment and mobilisation techniques relevant to the lateral hip and buttock, and consider the impact of soft tissue interfaces
- Recognise the important anatomical relationships and functional roles of the deep external rotators

ONLINE LEARNING COMPONENT

The substantial theoretical component of this course is presented in an online learning format for your flexibility and optimal learning experience.

- 6 hours of PowerPoint lectures with printable notes.
- Learn anywhere, at your own pace, in your own time.
- Rewind and revise as many times as you like.
- Online forum for discussion.
- Self-assessment quiz.
- 3 months of unlimited access to video content

The online component will:

- Clarify definitions and diagnoses of lateral hip and buttock pain
- Explore factors which may influence loads across the lateral hip & buttock and predispose to intra or extra-articular impingement, such as:
 - morphological variants (e.g. bony structure, soft tissue - neural relationships)
 - adverse soft tissue loading associated with kinematics and neuromotor function (focus on hip abductors and short external rotators).
- Provide an overview of key load management and therapeutic exercise strategies for lateral hip and buttock pain, particular to the patient presentation and associated difficulties with mechanical load transfer.
- Provide an update on scientific evidence for underlying diagnostic and management approaches

PRACTICAL WORKSHOP (1 Day)

The practical workshop will guide participants through diagnostic tests and management strategies for lateral hip and buttock pain. There is now high-quality evidence for assessment and management of gluteal tendinopathy from the 'LEAP' lateral hip pain randomised clinical trial, of which Alison was a key investigator. Participants will receive first-hand instruction on techniques, advice regarding how best to apply this approach in clinical practice and valuable troubleshooting for slow or non-responders.

The workshop will then delve into the other lesser-known problems associated with buttock pain that may present diagnostic and management challenges – posterior joint instability, bony impingements, peripheral nerve entrapments and musculotendinous overload. Understanding the impact of bony morphology, soft tissue interfaces and postural and movement patterns is critical to optimal management of these conditions.

The one-day practical workshop will include:

Diagnostic tests, management strategies & key exercises for:

- gluteal tendinopathy & associated soft tissue pathologies
- posterior hip joint instability
- extra articular impingements *ischiofemoral impingement
- deep gluteal syndrome/extraspinal sciatica
- proximal hamstring tendinopathy