COURSE DESCRIPTION

Several recent sources have attempted to define various aspects of groin pain in both athletic and non-athletic populations. The ambiguity relative to hip joint related pain definition is of increasing concern with findings suggesting rising prevalence of this pathology in athletes, as well as an increasing implementation of surgery in athletes and non-athletes despite a lack of clearly defined surgical indications in some hip pathologies.

Imprecise hip joint related pathology definition and diagnosis has been acknowledged by several sources attempting to address the indistinctness, namely for hip joint osteoarthritis (OA), ligamentum teres tear, labral tear and femoroacetabular impingement syndrome (FAIS). Proper diagnosis is essential due to rising prevalence of hip related pathology in athletes, an increasing implementation of surgery in athletes and non-athletes as well as the suggestion of a pathology continuum risking of developing hip OA (soccer, handball, track and field, and hockey).

In this course you will learn a detailed, systematic, evidence-based examination process to differentially diagnose hip pathology. You will learn evidence-based methods of screening other potential regions of pain generation (e.g. lumbar spine), as well as screening for serious pathology. You will also learn various assessment methods to differentially diagnose intra- from extra-articular pathology, as well as specific pathology differentiation.

This course utilizes a great deal of demonstration of the various tests, including activity and sport-related movements. The diagnostic accuracy and clinical interpretation of these tests is also presented in a manner that is easily understood and usable the next day in the clinic.

LEARNING OBJECTIVES

Module 1 | Introduction to the Diagnostic Process

After completing module 1, the learner will be able to:

- Identify the primary components and sequence of the proposed funnel examination for this course.
- Identify the portion of the examination suggested to have the largest contribution to a patient’s diagnosis in medical studies.

Module 2 | Hip Anatomy and Biomechanics

After completing module 2, the learner will be able to:

- Describe how the angle of inclination of the femur affects hip pathology.
• Discriminate between torsion and version in the hip joint.
• List how the gluteus medius and minimus are similar in function to the shoulder rotator cuff.
• Discriminate between resting position and closed packed position of the hip joint.

Module 3 | Diagnostic Accuracy

After completing module 3, the learner will be able to:

• Discriminate between a screening and diagnostic test.
• Identify which portion of the examination process is strongest at diagnostic accuracy, especially in medical studies.
• Identify commonly utilized acronyms for sensitivity and specificity.
• Identify general differences between a positive and negative likelihood ratio.

Module 4 | Diagnostic Imaging of the Hip

After completing module 4, the learner will be able to:

• Identify 3 primary imaging views utilized for the hip joint.
• Identify at least 3 imaging angles utilized in diagnostic imaging for the hip joint.
• Identify 2 methods of ultrasound imaging can be utilized for diagnosis of the hip joint.
• Identify primary imaging characteristics of hip osteoarthritis.

Module 5 | Motion and Muscle Performance Assessment

After completing module 5, the learner will be able to:

• Describe how a clinician can differentiate limitations in hip joint range-of-motion based on motion and joint play assessment.
• Differentiate how torsion of the hip joint can affect limitations in range-of-motion.
• Describe why hip flexion typically is not a completely sagittal plane motion.
• Identify the range-of-motion where the psoas major typically provides femoral head stabilization anteriorly.

Module 6 | Screening Serious Pathology

After completing module 6, the learner will be able to:

• Identify ideal characteristics of a screening test to help rule out serious pathology.
• Identify the best tests for ruling out femoral fractures and stress fractures respectively.
• Identify the testing characteristics of bone scans for femoral stress fractures.
• Identify the type of sport(s) most commonly associated with femoral stress fractures.

Module 7 | Screening Co-Existing Pathology

After completing module 7, the learner will be able to:

• Identify and describe the best screening tests for the lumbar spine.
• Identify and describe the best screening test for the sacroiliac joint/pelvic girdle.
• Identify and describe the best screening test for facet joint related pain.
• Discriminate the ability of motion palpation testing for screening and diagnosis of pelvic girdle and hip pain.

Module 8 | Diagnosis of Hip Osteoarthritis and Avascular Necrosis

After completing module 8, the learner will be able to:

• Identify 4 to 5 signs and symptoms associated with the diagnosis of hip osteoarthritis.
• Identify the association of range-of-motion of the hip and radiographic findings indicative of hip osteoarthritis.
• Identify characteristic range-of-motion impairments diagnostic of hip osteoarthritis.
• Identify the imaging modality(ies) best suited for diagnosis and screening of avascular necrosis.

Module 9 | Diagnosis of Femoroacetabular Impingement Syndrome with/without Labral/Chondral Pathology

After completing module 9, the learner will be able to:

• List the most common subjective symptoms indicative of acetabular labral tear.
• List the best screening test for femoroacetabular impingement/labral tear.
• List the radiographic angle measurements in the hip most commonly utilized to describe and quantify femoroacetabular impingement.
• Identify the imaging modality with the best ability to screen and diagnose acetabular labral tear.

Module 10 | Diagnosis of Hip Dysplasia and Instability

After completing module 10, the learner will be able to:

• Define hip dysplasia as generally defined by the literature.
• List the direction of primary instability in the hip.
• List the special tests with reported diagnostic accuracy for the diagnosis of hip instability.
• Identify the primarily utilized imaging measures for the diagnosis of hip dysplasia.

Module 11 | Diagnosis of Extra-Articular Hip Impingement

After completing module 11, the learner will be able to:

• Identify the primary types of extra-articular hip impingement.
• Identify general characteristics of each type of extra-articular hip impingement.
• Explain the mechanics of the various extra-articular impingement tests.
• Conclude that extra-articular hip impingement is a complex syndrome of many overlapping symptoms and pathologies.

Module 12 | Diagnosis of Deep Gluteal Syndrome

After completing module 12, the learner will be able to:

• Identify the primary signs and symptoms of sciatic nerve entrapment.
• Differentiate the diagnostic accuracy of the straight-leg raise (SLR) test for sciatic nerve entrapment versus for radiculopathy.

Module 13 | Diagnosis of Gluteal Tendon Pathology

After completing module 13, the learner will be able to:

• List clinical tests that assist in diagnosis of gluteal tendinopathy.
• Describe potential issues with single-leg stance testing for gluteal tendinopathy.
• List at least one finding helpful to differentially diagnose greater trochanteric pain syndrome/gluteal tendinopathy from hip osteoarthritis.
• Identify the general strength of available evidence regarding the diagnosis of gluteal tendon tears.

Module 14 | Diagnosis of Proximal Hamstring Pathology

After completing module 14, the learner will be able to:

• Identify the type of activities that provoke symptoms for a person with proximal hamstring tendinopathy.
• Define irritable in relation to proximal hamstring tendinopathy.
• Define low- and high-load clinical tests for proximal hamstring tendinopathy.
Module 15 | Diagnosis of Athletic Specific Hip-Groin Pain

After completing module 15, the learner will be able to:

- List the defined clinical entities from the Doha Agreement Consensus meeting.
- Define which of these clinical entities is not diagnosed with a specific resistance test.

Module 16 | Putting all of the Pieces Together

After completing module 16, the learner will be able to:

- List the best 5 tests as described in this module.
- List what each of these ‘5 best tests’ are utilized for.

Module 17 | Clinical Examination Pearls

After completing module 17, the learner will be able to:

- List two of the suggested modifications for the special tests listed in this module.
- Describe two of the suggested modifications for the special tests listed in this module.