

## REPORT FROM THE GROIN PAIN CONSENSUS CONFERENCE 2014



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#### Introduction

Major confusion surrounds groin injuries in sport with regard to their taxonomy. Therefore, the "Doha agreement meeting on terminology and definitions and groin pain in athletes" aimed to resolve this problem. A lack of agreement on terminology is a major obstacle to advances in the field.

#### Expert group demographics

The group comprised 24 international experts from 14 different countries. There were 7 sports medicine physicians, 6 physiotherapists, 5 orthopaedic surgeons, 5 general surgeons, and 1 radiologist. The members had been practicing for an average of  $22.8 \pm 8.9$  (SD) years since qualifying.

#### Meeting process

Aspetar orthopaedic and sports medicine hospital, Doha, Qatar hosted the meeting on the 4th November 2014. Unanimous agreement was reached on the terms and definitions presented below. The system has four major sub headings of groin pain in athletes.

1. Common musculoskeletal clinical entities:  
Adductor, pubic, inguinal, iliopsoas-related groin pain
2. Hip-related groin pain.
3. Other causes of groin pain in athletes.
4. Acute groin injuries.

#### 1. Common musculoskeletal clinical entities: Adductor, pubic, inguinal, iliopsoas-related groin pain

Palpation, resistance testing and stretching of affected muscle groups are used to categorise athletes into these groups. The pain reported by the athlete on resistance testing should also be felt in the affected structure.

**Adductor-related groin pain:** local tenderness AND pain on resisted adduction testing

**Iliopsoas-related groin pain:** local tenderness

The group agreed that the entity is more likely if there is pain on resisted hip flexion AND/OR pain on stretching the hip flexors

**Inguinal-related groin pain:** Pain location above inguinal ligament AND tenderness of the posterior wall of the inguinal canal. No palpable inguinal hernia is present.

The group agreed that the entity is more likely if the pain is aggravated with resistance testing of the abdominal muscles or on Valsalva/cough/sneeze.

**Pubic-related groin pain**

Local tenderness in the region of the pubic symphysis and the immediately adjacent bone.

In this entity the group did not feel that there was a specific resistance test to be used as well as palpation.

## 2. Hip-related groin pain

There was agreement that pain from the hip joint should always be considered as a possible cause of groin pain.

Hip joint pathologies are difficult to rule in using clinical tests alone in athletes. If all the tests on physical examination do not reproduce the pain this makes hip-related pain less likely. In cases where there is a clinical suspicion of hip-related pain further investigations or a trial of treatment can be considered.

## 3. Other conditions causing groin pain in athletes

The group emphasized that there are many other possible causes for groin pain in athletes. A high index of clinical suspicion is needed to identify these and clinicians need to be alert to the possibilities.

Common	Less common	Not to be missed
Adductor-related groin pain	Inguinal or femoral hernia	Slipped capital femoral epiphysis
Iliopsoas-related groin pain	Stress fracture	Perthes' disease (adolescents)
Inguinal-related groin pain	- Neck of femur	Intra-abdominal abnormality
Pubic-related groin pain	- Pubic ramus	Prostatitis
Hip-related groin pain	- Acetabulum	Urinary tract infections
	Nerve entrapment	Gynecological conditions
	- Obturator	Spondyloarthropathies
	- Ilioinguinal	Ankylosing spondylitis
	- Genitofemoral	Avascular necrosis of the head of the femur
	Referred pain	Tumors
	- Lumbar spine	Testicular
	- Sacroiliac joint	Osteoid osteoma
	Apophysitis	
	- Anterior superior iliac spine	
	- Anterior inferior iliac spine	
	- Pubic bone	

Table 1: An overview of some of the possible causes of long-standing groin pain in athletes.

## 4. Acute groin injuries

The group felt that in general the system proposed above could be used to classify the majority of injuries into acute entities. This means that history along with examination comprising palpation, stretching and resistance testing is key. In cases with severe pain it may be hard to perform a thorough physical examination.

More studies are needed to identify the role of examination and further investigations in acute groin injuries.