

# Hockey Injuries

For more information on hockey related injuries visit:  
<http://www.cssphysio.com.au/hockeynewsletter.html>



## Hip Injuries in Hockey

The hip is a common area of acute and chronic injury in hockey. The region around the hip is complex, as is influenced by the lower back and sacroiliac joints, the pelvis, and the groin. Any of these areas can refer pain to the hip, or play a role in the development of hip problems.

### Hip joint.

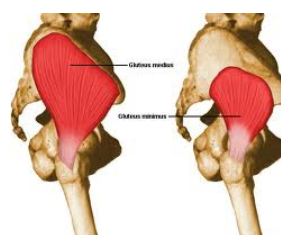
The hip is a stable ball & socket joint. The socket is known as the *acetabulum*, and is on the lower lateral aspect of the pelvis. The ball is the round *head of the femur*, at the top of the leg. Dislocations to this joint are rare, however subtle injuries are common. Because of the extreme bending, twisting and sideways movements common to hockey, the joint can be placed under extreme load. Drag flickers and goalies are particularly at risk. Structures commonly damaged include the joint cartilage, ligaments, and the rim of cartilage which surrounds the joint, known as the *labrum*. Certain players will be more likely to suffer injury, because of inherent irregular shapes to the bones or joint surfaces.



### Muscles.

The loads placed on the muscles around the hip are as great for hockey as for just about any sport. Muscles prone to injury include:

1. Gluteals. The 'gluts' are commonly injured, and frequently become painful due to overuse. Because of frequent sideways



movement, the *gluteus medius* and *minimus* are most at risk. Planting the left foot and leaning into the left hip while swinging or pushing makes the

left side particularly vulnerable. Tears can occur within the muscle or tendon. A frequent site of pain is where the tendon attaches to the top of the femur, at the bony prominence known as the *trochanter*.



Gluteus *tendinopathy* is a common condition.

It is 'wear & tear' at the point of tendon attachment to bone. Occasionally this will involve inflammation of the *trochanteric bursa*. This pain may be in the buttock, or commonly on the side of the hip.

2. Adductors. The groin muscles, known as the adductors, are frequently injured. Chronic groin pain is one of the most common & problematic injuries in running & pivoting sports. It is often due to tendon overload, but groin pain can be due to hip or pubic joint injuries, or sports hernia. This topic will be discussed in a separate newsletter.



3. Hip flexor. The *psaos*, quadriceps, and other muscles



at the front of the hip are sometimes strained or over-worked. They are frequently tight in hockey players, and require regular stretching.

4. Hamstrings. The hamstrings attach to the *ischial tuberosities* – the bones we sit on. Injury or tendinopathy at this point can cause buttock pain which may feel like it's coming from the hip.



### Spine and sacroiliac joints (SIJ)

Hockey is very harsh on the joints of the low back and pelvis. Pain from these areas can refer into the buttock or even around into the groin. It is also common for low back problems to contribute to hip pain. Any loss of flexibility in this region may lead to compensatory overload at the hip joint or its muscles. Loss of flexibility higher up, in the thoracic spine, will often overload the hips, as necessary twisting movements will be transferred lower down.

### Treatment

It is important to accurately determine where the pain is coming from to ensure the correct treatment is provided. This can be difficult, as areas of pain overlap and more than one structure may be causing problems. Treatments which may be helpful include:

1. Prevention. This is always the best policy. Being fit, and strong in the core and hip region, is essential for hockey. Adequate warm-up for training & games will also afford important protection.
2. Stretching. Regular stretching between games should include the calves, adductors, hamstrings, quads, lateral thigh, hip flexors, buttock muscles & spine.



3. Targeted strengthening. It is common to have weakness in the core hip muscles, as well as lumbo-pelvic core. This will lead to 'collapse' through the weight-bearing leg when running & propping (left diagram), and cause enormous shearing forces around the hip. Certain muscle groups should be strengthened to correct this.



4. Tendon specific management. If a *tendinopathy* is present, this often requires specialized treatment. How this is administered will depend on the stage & extent of the injury.
5. Myotherapy. Treatments directed at the involved muscles may include deep tissue releases, trigger point massage or dry needling.
6. Joint mobilisation. Stiff joints can be loosened using mobilisation or manipulation. Commonly, this will include the hip, lower and mid-back.
7. Muscle energy techniques. It is important to ensure balanced movement & coordinated muscle actions around the pelvis & SIJ's.
8. Medical management. Sometimes structural problems, particularly within the hip joint, will mean that the injury will not fully recover with conservative treatment. Occasionally surgery will be required, to repair damaged tissue or 'shave' irregular shapes which contribute to impingement or abnormal hip movements.



For more information on hockey related injuries visit:  
<http://www.cssphysio.com.au/hockeynewsletter.html>

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