Hamstring Origin Tendinopathy



What is it?

Tendons are tough bands of tissue that connect muscles to bones (note figure 1). Hamstring origin tendinopathy refers to degeneration within the tendon which joins the hamstring muscles to the pelvic bone (ischial tuberosity).



What are the symptoms?

Patients with hamstring origin tendinopathy typically experience pain in the lower buttock. In less severe cases, patients may experience an ache or stiffness in the buttock that increases with rest following activities requiring strong or repetitive contraction of the hamstring muscle. These activities typically include running, jumping, rowing or kicking. In early stages and mild cases the pain associated with hamstring origin tendinopathy may sometimes improve after warming up.

As the condition progresses, patients with hamstring origin tendinopathy may experience symptoms that increase during activity and affect performance. Patients with hamstring origin tendinopathy typically experience pain on firmly touching the hamstring tendon or sitting on a firm seat. Occasionally, a feeling of lower limb weakness may also be present particularly when attempting to accelerate whilst running.

What should I do?

Hamstring origin tendinopathy generally does not improve on its own, especially if the cause is not addressed and you continue to exercise. If you have or suspect you have hamstring origin tendinopathy, you should consult your nearest sports medicine professional. In the meantime, you can begin initial treatment. This should consist of icing following participation and regular gentle hamstring stretching.

Icing may consist of crushed ice wrapped in a moist towel applied to the region of pain for 15—20 minutes. You should continue to apply icing for up to 4 hours after the injury. If you have or suspect you have hamstring origin tendinopathy, you shouldn't ignore the problem. Your pain may get better as you exercise however the exercise you are doing may be interfering with the healing process and causing further damage. This can lead to your injury deteriorating. This may

How did I get it?

Hamstring origin tendinopathy results from overuse of the hamstring tendon, at its origin in the buttock. The function of the hamstring tendon is to transmit forces produced by the large muscle group on the back of the thigh (hamstrings) to the pelvic bone complex. Repetitive use of the hamstring muscle group and, therefore, the hamstring tendon can lead to breakdown and microscopic tears within the tendon.

then reach the stage where your pain does not 'warm up' and you feel it throughout sport participation. If this occurs, your recovery may be prolonged and it may take a number of weeks for you to return to full participation. Hamstring origin tendinopathy does not produce any long-term effects if it is properly diagnosed and appropriately treated. If this is not achieved, it can lead to prolonged pain and a delayed return to your sporting activity.

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How is a diagnosis made?

A diagnosis is made on the history of the injury and examination of findings. Only occasionally are x-rays, ultrasounds and / or MRI ordered to rule out other injuries. It is very important that the correct diagnosis is made.

What does rehab involve?

It is now recognised that there is not much inflammation in tendinopathy so anti-inflammatory medications and cortisone injections are not normally used to treat this type of injury. Often tendinopathy will persist for a long time. A large hamstring tear will often heal in a matter of weeks but hamstring origin tendinopathy frequently persists for many months. The body does not activate the same repair processes for tendinopathy that it does for other types of injuries. For this reason treatments aimed at strengthening and/or irritating the tissue are the preferred treatment for these types of injuries. Physical exercise based therapy must always be the basis of treatment.

Tendon function and strength must be preserved and for this reason exercise therapy is the most important treatment. Irritant treatments including injections (such as prolotherapy, PRP (Platelet Rich Plasma) and ABI (Autologous Blood Injections) and minimally invasive surgeries such as percutaneous tenotomy are increasingly popular. They essentially aim to injure the tissue to promote a healing response by the body.

Activity Modification:

Reducing provocative activities such as running and jumping will facilitate recovery. If your symptoms are very severe you may have to stop these activities altogether until the pain settles. If your symptoms are mild it may be safe to continue activity at a lower level. The timing of the return to activity is extremely important. The same activity can be helpful or harmful depending on the timing. For example if you have torn your bicep, doing bicep curls immediately would exacerbate the injury; but in late stages of rehab, bicep curls might be an important strengthening exercise to prevent re-injury. As a general rule with tendinopathy it is safe to perform activities such as running at a level that causes less than 3/10 pain (where zero is no pain at all and 10 is the worst pain imaginable) PROVIDED that good technique can be maintained AND the pain settles quickly after completion of the activity and is no worse the following day. These guidelines will largely dictate how quickly you can push your return to your training program.

Pain Medication:

Pain medication tends not to be particularly effective for tendinopathy. A trial of antiinflammatories or simple pain relief medication like paracetamol may be worthwhile initially or if the symptoms are severe.

Physical therapy:

Exercise therapy, in particular strengthening exercise should be the focus of treatment. Strengthening exercises that stress the hamstring origin without compressing the tendon are important.

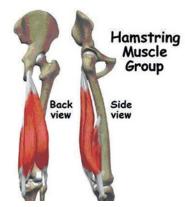


Figure 1

Hamstring Origin Tendinopathy



Cortisone injection:

An injection of cortisone, which is an anti-inflammatory steroid medication, may be given to relieve pain. Relief from a cortisone injection is usually highly effective but also only temporary in nature. It may last as long as many months but as little as a few weeks. There is some contention regarding how many times an injection can be repeated but generally it will be considered twice before pursuing surgical options. The injection can be painful and has an extremely small risk of causing infection. One theoretical side effect of a cortisone injection is that it can weaken the tissue and might result in a rupture of the tendon. The risk of this is low, approximately 1/1000.

A cortisone injection is usually used in two groups of patients. The first group have milder symptoms or can alternate their duties so they can work around the pain. In this group an injection is performed when the pain has been present for a long period of time and an extensive trial of physical therapy has failed. The second group is patients with extreme symptoms or who, for some reason, cannot wait for physical therapy to become effective. This group usually receives an earlier injection but must also engage in physical therapy or the pain will just return when the injection wears off.

Irritant Injections:

Although they can be quite painful, irritant injections such as PRP are increasingly popular. They act to irritate the tissue and infiltrate growth factors that promote healing. While cortisone works well in the short term, PRP works more slowly and long term outcomes have been shown to be better than cortisone.

Shock wave therapy:

Shockwave therapy can be considered. It may offer some benefit where other treatments have failed, especially in calcific tendinopathy where a bone spur is present.

Surgery:

Surgery is rarely required and can be avoided in most cases.



Do you have a question?

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