

Welcome to our  
**Newsletter**  
designed to provide  
you with current  
information about  
physiotherapy...

Shop 6, 637 Princess Highway  
Blakehurst NSW 2232  
T: 02 9546 6880  
F: 02 9546 6814  
[stgeorgephysio@hna.com.au](mailto:stgeorgephysio@hna.com.au)



## Issue 3 2013

# Hamstrung by a Niggly Hamstring?



**St George Physio**  
**9546 6880**  
**For all your Physio**  
**Needs...**

**Assessment**  
**Diagnosis**  
**Treatment**  
**Rehabilitation**

**St George Physiotherapy** is a  
leading Physiotherapy Clinic  
of excellence in The St George  
Region.



We tailor specific,  
individualised, and evidence  
based treatment plans that  
are specific for your  
hamstring injury.  
For an accurate diagnosis and  
tailored treatment plan call  
**9546 6880** and make an  
appointment today!



What is this injury? And what makes everyone from pro athletes to weekend warriors susceptible to it? One of the most common injuries in sport is the hamstring strain, as the hamstring muscles are very susceptible to tears and strains.

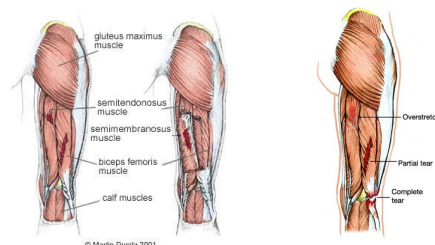
Hamstring strains are most common among sports that require a high degree of speed, explosive acceleration, power and agility such as soccer, basketball, hockey, AFL, tennis and football.

Hamstring injuries often take a long time to recover and once injured the rate of recurrence is high.



### What are the Hamstrings?

The hamstring group of muscles, located on the back of the upper leg, are a group of three separate muscles: Biceps Femoris, Semimembranosus and Semitendinosus. The top of these muscles are attached to the lower part of the pelvis, and the bottom of the hamstring muscles are attached to the tibia and fibula just below the knee joint. The action of the hamstring muscles is to flex the knee and extend the hip.



The major cause of hamstring injuries originates from an imbalance between the quadriceps muscle and the hamstring muscles. The quads are a very large, strong group of muscles which help to straighten the leg. These muscles may forcibly overstretch the hamstring, placing excessive tension on the hamstring muscles.

Acute hamstring strains occur due to a sudden movement or force being applied to the hamstring muscles. The player is immediately aware of the condition. Sometimes players hear an audible pop.



### Proven risk factors:

- Previous hamstring injury
- Increasing age of player
- Sudden change in direction
- Acceleration or deceleration

### Suspected risk factors:

- Poor flexibility.
- Poor strength.
- Hamstring muscle fatigue.
- Muscle strength imbalance between the quads and hamstrings.
- Inappropriate, inadequate or no warm up.

### Prevention:

- Completing a thorough general body warm up, which includes sport-specific muscle stretching as well as sport specific skill drills.
- Including appropriate speed work in training programs so the hamstring muscles are capable of sustaining high acceleration forces.
- Maintaining high levels of cardiovascular fitness and muscular endurance to prevent fatigue.
- Stretching and cooling down after every training session and competition.
- Including stretching and strengthening exercises in weekly training programs.



St George  
Physiotherapy

[www.stgeorgephysio.com.au](http://www.stgeorgephysio.com.au)

## News from St George Physio...

### Bye Bye Dianne, sorry to see you go...

On a sad note one of our long serving receptionists Dianne McCallum will be leaving us. Dianne has been with the clinic since 2010 and has been a fantastic member of the St George Physiotherapy and Pilates team. We hope she pops in from time to time to keep us updated on how she is going.

### City to Surf...

For all of you runners planning on hitting the upcoming City to Surf, Sutherland to surf or even the Blackmores half marathon later in the year, make sure you are as prepared as you can be. Most of the patients we see here choose to suffer through injuries waiting until the last minute to present for help. By then it can be difficult to undo damage that could easily have been avoided and sadly this can lead to missing out on the run altogether! If you are having foot, heel, arch, knee or hip pain associated with training come in before it's too late.

### Call us now!

### Running assessments...

One of our Physios Ben Waldock has a special interest in running injuries. Many of us have never been coached to adopt an efficient form which affect our speed, endurance and risk of injury. It is surprising how often pain can be fixed or avoided through simple technique corrections. He uses biomechanical video analysis of your running technique in addition to a physiotherapy assessment to get an accurate understanding of your problem.

**So to get faster, train harder and avoid those injuries, book in now for a running assessment today!**

### Prevention Cont:

- Undertaking training prior to competition to ensure readiness to play.
- Gradually increasing the intensity and duration of training.
- Allowing adequate recovery time between workouts or training sessions.
- Wearing the right protective equipment including footwear.
- Checking the sporting environment for hazards.
- Drinking water before, during and after play.
- Avoiding activities that cause pain.

If pain does occur, discontinue the activity immediately and commence RICER, arrange an appointment with your physio...



Hamstring strains are classified as Grade 1–3 strains depending on severity. A hamstring strain may occur in one or more of the three muscles in the group.

#### Grade 1 (Mild) – Return to play 2-21 days:

- overstretching without tearing of muscle or tendon fibres
- symptoms may appear after activity
- Small loss of muscular strength or flexibility
- increased tightness in the muscle during stretch or through a full range of motion
- a feeling of pain with sitting or while walking uphill or going up stairs
- minimal swelling

#### Grade 2 (Moderate) – Return to play 4-8 weeks

- partial tear in the muscle
- muscular strength & flexibility is reduced
- pain is more immediate and severe
- pain on stretch and contraction of the muscle
- tender over muscle tear
- painful when walking

#### Grade 3 (Severe) – 3-6 months minimum

- severe or complete rupture of the muscle
- may be a large lump (of muscle tissue) above a depression where the tear is
- sudden, sharp pain in the back of the thigh
- walking is not possible without pain
- after a few days, a large bruise may appear below the injury site caused by bleeding within the tissues
- may require surgical repair



### Immediate Management

The immediate treatment of any soft tissue injury consists of the **RICER** protocol – rest, ice, compression, elevation and referral. RICE protocol should be followed for 48–72 hours. The aim is to reduce the bleeding and damage in the muscle.

The No **HARM** protocol should also be applied – no heat, no alcohol, no running or activity, and no massage. This will ensure decreased bleeding and swelling in the injured area.

#### Get the injury assessed by Physio...

as soon as possible post injury to assess severity and map out a graduated rehabilitation program which should safely guide you back to your sport, and prevent any recurrence of injury.

Physiotherapists regularly diagnose and treat Hammie injuries, and are critical in getting athletes back to normal after this injury.

#### Rehabilitation and return to play – When will I know I'm ready?

This is a major problem as the hamstring will be pain free on normal activity long before it is ready to kick or sprint.

Don't attempt to return to these activities or full sport until you are cleared by your Physio or Sports Doctor.

Timeframes for rehabilitation and return to sport vary depending on the nature and severity of the strain, from up to 3 weeks Grade 1 up to 6 months for a complete rupture Grade 3.



Assessment of sport-related activities, such as twisting, jumping and changing direction suddenly should also be evaluated.

You should have completed 1-2 weeks of pain-free full training including game-specific intensity and skill requirements (i.e. sprinting, changing direction at high speed, jumping, bumping, tackling, kicking, picking the ball up off the ground at pace, repeated efforts), without any pain or lack of strength during or after the sessions, before return to competitive sport.

#### Premature return to sport and inadequate rehabilitation will increase the risk of re-injury.

A lingering hamstring strain not only inhibits performance but becomes a weak-link in the way an athlete moves, making them more susceptible to chronic strain of the hamstring and/or increase the risk of suffering a more severe injury in the future.