# **HELP FOR HAMSTRINGS**

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Hamstring injuries remain one of the most common injuries in sports that involve high speed running. Even at the elite level, with all the resources available, it remains a significant problem.

Take a look at the injury list of any AFL or A-League club during the season and there will usually be at least one player unavailable for selection due to a hamstring injury. Here are five key tips for reducing your risk of pulling your hamstring.

## STRENGTHEN YOUR CORE AND GLUTES

If you are weak in your core and glutes, the hamstrings will end up having to do some of their work. As a result, the hamstrings will tend to get excessively overloaded and fatigued, which is a recipe for hamstring strain. Physiotherapists are big on this concept.



# **BUILD UP TO HIGH SPEED RUNNING**

The hamstring muscle is one of the prime muscles used in high speed running and sprinting and indeed the majority of hamstring strains occur during this activity. However, this does not mean that high speed running should be avoided in training – in fact by not doing any high speed running you are actually under-conditioning your hamstrings. So, if your sport involves any high speed running activity (AFL, football, hockey, running, etc) then you must do *some* of this in your training, otherwise your hamstrings will not be conditioned properly. This follows one of the basic principles in conditioning: the principle of specificity.

A word of caution on high speed running, the progressions with high speed running volumes **MUST** be gradual, and sessions with a large volume of high speed running should be followed by sessions without high speed running in order to allow the hamstrings to recover properly. It is vital to "listen" to your coach in this regard – if your hamstrings are "tight" or "heavy" then I suggest waiting a day or so before attempting a session with a high volume of high speed running.

### DO ECCENTRIC HAMSTRING EXERCISES

Several scientific studies have demonstrated that performing eccentric strength exercises for the hamstrings reduce the risk of hamstring injury. "Eccentric" means a contraction where the muscle is lengthening, and typically involves lowering a weight slowly in the same direction as gravity. Eccentric hamstring strength exercises include "Nordics", "Romanian dead lifts" (both double leg and single leg), and "Good Mornings". A word of advice....increase slowly with this type of exercise otherwise expect some serious next day muscle soreness! It is also strongly recommended that eccentric strength exercises be done AFTER your running sessions, not before.

#### **AVOID DRASTIC CHANGES IN GROUND SURFACE**

Difficult advice for trail runners! However, regularly changing your training surface can be a recipe for hamstring problems. Different surfaces will result in changes to running biomechanics (i.e. stride length and frequency), your running speed, and the ground reaction forces acting on your body, all of which affect how intense your hamstring muscles will be working.

For example, if you typically do your hockey training on a soggy grassed oval, your stride length and stride frequency will be relatively low, and your hamstring muscles will be conditioned accordingly. If you then go and compete on a hard surface (i.e. synthetic pitch) your stride length and frequency will most likely increase, as will your running speed, and your hamstrings may not be appropriately conditioned to handle the immediate change.

#### **PROPER REHAB FOR HAMSTRING INJURIES**

According to the medical experts, the single biggest risk factor for a hamstring injury is a previous hamstring injury. Therefore, it is absolutely vital that if you currently have or have had a recent (within 12 months) hamstring injury, you rehabilitate it properly. This means getting it properly assessed (by a physiotherapist), and then following a graduated strength and conditioning program. In general, it takes 4-6 weeks after a minor hamstring strain before returning to play. But there will be an elevated risk for at least 12 months afterwards, and strength and conditioning exercises specific for the hamstring should be continued throughout this period.