

Don't be hamstrung by hamstrings

Hamstring strains can strike athletes of all sorts -- including runners, skaters, and football, basketball, and soccer players. The Hamstring is a group of three muscles that run along the back of the thigh. They allow the leg to bend at the knee. During a hamstring strain, one or more of these muscles gets stretched too quickly or is worked too hard. The damage to the muscle can range from just a mild "pull" to actual tearing of the muscle and surrounding tissue.

Pulled hamstrings are graded 1, 2 or 3 depending on severity. Grade 1 consists of minor tears within the muscle. A grade 2 is a partial tear in the muscle and grade 3 is a severe or complete rupture of the muscle.

Hamstring strains usually occur during exercise that involves a lot of running and jumping or sudden stopping and starting. Hamstring strains are one of the most common muscle injuries in soccer.

The symptoms associated with a muscle strain include:

- Sudden and severe pain during exercise, along with a snapping or popping feeling
- Tightness
- Swelling
- Bruising
- Weakness

Hamstring strain can be a result of:

- Doing too much, too soon or pushing beyond your limits
- History of hamstring injuries
- Poor flexibility and/or strength
- Improper or no warm-up
- Muscle imbalance- the muscles in the front of your thigh (the quadriceps) are a lot stronger than your hamstrings
- Going through a growth spurt

Treatment of a muscle strain includes:

- 1) Protection – The athlete should be prevented from further injury to the muscle. This may require the athlete to stop playing, depending on the level of activity. Any activities that cause sharp pain should be stopped. If there is soreness that does not persist into the next day, that is ok. A hamstring brace to protect the muscle might be helpful.
<http://www.countrforce.com/thighbrace.html>
- 2) Rest – Avoid movements and activity that cause sharp pain.
- 3) Ice – Cold gel packs, bags of frozen vegetables, or bags of ice cubes are all suitable methods to ice. The ice should not be applied longer than 15 min at a time and no more often than once per hour. There should be a thin barrier (towel, thin T-shirt, etc) in place between the ice and the skin surface.

- 4) Compression – Wrap the injured muscle in an elastic bandage or fabric sleeve to provide compression and support.
- 5) Elevation – Keep the injured area above the level of the heart when possible.
- 6) See your doctor – If the player experiences persistent sharp pain, weakness, significant bruising, or has symptoms that linger for an extended period, they should be seen by a physician trained in the field of Sports Medicine.

Preventing Hamstring Injuries

- Warm up thoroughly. This is probably the most important muscle to warm-up and stretch before a workout.
- Perform a dynamic warm-up stretching program before sports participation that focus on the hips and legs
- Stretching after the workout may be helpful.
- Try adding a couple of sessions per week of backwards running. This has been shown to decrease knee pain and hamstring injuries.
- Follow the ten percent rule. Limit increases in training volume or distance to no more than ten percent per week.

In order to help prevent muscle strains, it is extremely important for the soccer athlete to warm up properly prior to executing any explosive movements, including kicking the ball. The player should initially begin with some light cardiovascular exercise, like an easy jog, for ~5-10 min, enough to break a light sweat. This should be followed by a more dynamic warm up, with movements like high knee skipping, karaoke and donkey kicks. Once the athlete is thoroughly warmed up, they should stretch the leg muscles, focusing on the hamstrings and hip flexors. After that, the player can begin performing more dynamic movements like sprinting, cutting, and harder ball kicking.

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