

# *Personal Training by Robert J. Bovee*

Researched & Written by Robert J. Bovee Certified Master PPT, RTS, ETS, FTS, LMS, WMS, HWFS, SNS,SSCS, MES, E/FT, PSCS, PRCS

## **HAMSTRING STRAIN**

The hamstring muscles, which are comprised a group of three, are frequently injured in sports. These muscles attach at the base of the buttocks and travel down the back of the leg to be attached again to the lower leg bones at the knee. Because the hamstrings cross two joints - the knee and the hip - they serve two purposes. When they contract, the hip extends and your leg bends forward to take a step. The hamstring also is used when you bend your knee.

The muscles opposed to the hamstrings are the quadriceps, the front thigh muscles. In many people the front thigh muscles are the strongest muscles in the body. However, runners want a ratio of **60/40** strength in their hams/quads to prevent injury.

Hamstring Strains are micro tears in the hamstring muscles. Athletes who have tight hamstring muscles and whose quadriceps are disproportionately weaker than their hamstrings can easily strain their hamstrings.

### **Signs and Symptoms**

The first sign of a strain may be during an intense workout. You'll feel a dull ache deep in the fleshy part of your upper back thigh muscle. Then, over the next week or so, especially if you are running hard, the pain increases. If you catch it early, this type of strain can be minor and heal quickly. But if ignored, it can become chronic and lead to lower back injuries as well.

On the other hand, you can strain your hamstring in one swift movement, such as an explosive move in basketball or a quick sprint to second base. In most cases, this is a serious strain, and you may even rupture the muscle.

If you are desk-bound most of the day, and then go for a vigorous workout, you're more likely to pull your hamstring because hamstrings get tight and short when you sit for a while. A strained hamstring hurts when the knee is bent against resistance. It also may feel tender to touch, or hurt getting out of a chair and climbing stairs.

If you follow the usual treatment for an overuse injury and just cut back your training, you can deceive yourself into thinking that your hamstring has recovered. As soon as you resume your vigorous training pace, you'll feel the burn in your hamstring again. That's why it's necessary not just to let the muscle recover but also to find out why you strained it and to correct any imbalances or training errors.

### **Causes**

**Tight Hamstring Muscles:** Frequent contractions of the hamstrings, which occur in almost every sport, tighten these muscles and make them susceptible to strains.

**Muscle Imbalances:** Sports, such as running or walking, strengthen and tighten your hamstrings, but don't work their opposing muscles, the quadriceps, as much. If your quadriceps muscles aren't strong enough, you'll strain your hamstrings when you move suddenly.

**Sudden Movements:** Sudden explosive movements such as in basketball, tennis, and sprinting, can stress a tight hamstring and strain it.

**Overuse:** If you work the hamstring too much, keeping them tight and tired, you can strain them.

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## **Recovery Measures**

=>Cut back training by **50%** both speed and distance for two or three weeks. Avoid putting stress on your hamstrings by running hills, doing hamstring strengthening exercises with weights, or doing speed work.

=>Ice the hamstrings for **20** minutes, three or four times a day - especially after workouts.

=>Apply heat to the hamstrings before you work out or stretch them

=>Take aspirin or ibuprofen for three or four days.

=>If your hamstrings don't feel better after a few weeks, or if you feel pain when you increase your training, see your doctor. Professional rehabilitation may include ultrasound therapy. Severe injuries require complete rest and often crutches.

=>Wrap your upper thigh for support when possible. An ace wrap from your drug store should suffice. You may want to keep your hamstrings wrapped during workouts for a while, but gradually wean yourself off the wrap, first during easy runs, and later during speed work.

=>Once you are almost pain free, begin stretching your hamstrings and strengthening your quadriceps.

## **To Avoid Future Problems**

=> Regularly stretch your hamstrings after every workout. You should be able to lie flat on your back with your hip flexed to 90 degrees and your knee fully extended. If you can't, continue to stretch after every workout until you reach 90 degrees

=> Make sure your hamstrings don't overpower your quads. If you run, walk, do aerobics or a stair climber, regularly strengthen your quadriceps with weight training, or cross training on a bicycle or rowing machine.

For more information, please contact Robert J. Bovee at **(585) 330-0614**.