

# Could Your Stretching Cause an Injury?

Many athletes are told that injuries are prevented by properly stretching prior to practices, workouts, and competitions. In fact if you ask coaches and parents what should be done first before working out, the answer will most often be “Stretch”.

Medical professionals, fitness instructors, personal trainers, athletes and even non-athletes all have this knowledge in their pre-exercise psyche. However, if you watch track athletes and many professional athletes warm up today you will see a lot of skipping, light running, jumping, but very little static or holding stretches. So why do these athletes avoid so much static stretching that we have often been taught?

## **What does static stretching accomplish?**

Static style stretching is commonly taught as warm-up activity. This requires holding a particular position for a certain period of time usually 15-60 seconds. Static stretching causes increased range of motion of the joints and it creates relaxation of the musculotendinous structures. This is why you get that “loose” feeling after stretching. Some research however expresses a growing concern that static stretching before competition could actually decrease performance and lead to injury. Studies showed that with prolonged stretching caused decreased muscular production. This can last up to one hour after vigorous prolonged stretching. Young (2002) reported that groups engaged in prolonged static stretching increased their incidence of injuries versus groups who avoided over-stretching prior to activity. These studies reveal that that there is a period after a muscle is statically stretched, that the muscle-tendon unit is weakened because it remains in its stretched position and is unable to produce force at a high level.

Think of it this way... a muscle put into a stretched position for an extended period of time will relax. If the athlete immediately goes to the court or field to play and calls upon that muscle to work it will not have the same power. With the muscle not able to fully function, it causes decreased performance and possibly set the athlete up for an injury.

## **So how is an athlete supposed to warm-up – an alternative.**

As coaches, athletic trainers, strength coaches, our goal is to increase the performance levels of athletes while decreasing the chance of injury. Static stretching is very effective but it is best integrated in the cool-down ritual after practices and competitions. This allows the athlete to make the biggest changes in muscular length without sacrificing performance and raising the risk

of injury. If you do incorporate static stretching into the warm-up, you want to make sure that you give the athlete ample time to adjust to that new muscular length. Don't ask the athlete right after the stretching to sprint, jump all out, throw hard etc.

### **The suggested warm-up**

The best warm-up is some type of dynamic or continuously moving warm-up during which the athlete is stretching and strengthening the muscles in these new lengths and positions without staying in one position for more than a second. Examples include ankle flips, butt kicks, high knee high arm runs, skips, and hops. After practice have the athlete go through the static stretching holding each stretch for 30 seconds.

### **References**

Bracko M. "Can stretching Prior to Exercise and Sports Improve Performance and Prevent Injury?" ACSM's Health and Fitness Journal Vol. 6 No. 5:17-21, 2002.

Young WB, Behm DG. "Should Static Stretching Be Used During a Warm-Up for Strength and Power Activities?" Strength and Conditioning Journal. Vol. 24, No. 5:33-36, 2002.

\*\*Remember to:

- 1) Always plan ahead for what you are going to eat
- 2) Obtain adequate amounts of protein
- 3) Work on your flexibility and
- 4) Supplement your diet with a fish oil and multivitamin

Let me know if I can help. Email me [architectsports@gmail.com](mailto:architectsports@gmail.com)

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