

Stretching is a much debated subject in the sports medicine world these days. Being a physical therapist in a pediatric and sports medicine facility we are always asked various questions by parents and coaches regarding stretching. The most popular questions are: should my son/daughter (athlete) stretch? And when is the best time to stretch? The answer according to current research is: stretching after activity appears to be the best time. The body's core temperature has been elevated and the muscles are warm with increased pliability allowing for a more comfortable stretch. In addition, when kids are growing their bones grow at a faster rate than their muscles, which can make them more susceptible to tightness in certain muscles. Decreased flexibility may increase the risk of injury in the growing athlete.

We feel that every athlete should be stretching consistently on a daily basis. Each athlete/person has specific areas of tightness that they should be stretching in order to improve their flexibility. However, research suggests that stretching may be better left to a time after athletes have done a thorough warm up, this usually requires some type of dynamic activity long enough to break a sweat. This warm up session can last anywhere from 10-20 minutes.

When we speak of stretching we are usually talking about a static stretch. This is when a muscle or group of muscles are lengthened to the point of mild discomfort just short of pain. Most static stretches are held for at least 30 seconds and repeated 3 times for each area being stretched. A static stretch when performed properly is considered safe and believed to adjust the microscopic receptors (muscle spindles) located within muscles and tendons that allow for a greater range of motion or improvement in flexibility. When stretching, each athlete should feel a pull in the targeted muscle group, but should never feel pain. We also have receptors within our muscles and tendons that sense position of a muscle and if pulled too far they can actually cause a muscle to become tighter.

Stretching our muscles on a consistent basis appears to have the following advantages: Increased blood flow to targeted area, increased connective and soft tissue extensibility, possible injury prevention, improve joint range of motion, improve running efficiency, decrease muscle soreness, and correct muscle length imbalances.

Below are some frequently asked questions and our answers regarding static stretching.

Q: How much force and intensity is required to achieve an adequate stretch?

A: Each person's perception of stretch may be different and require different intensity, but should never be painful.

Q: How long a time period should each stretch be held for?

A: There is no exact answer in the literature, but at this time and may be different for each individual. Studies say anywhere from 5 seconds to 3 minutes, but we recommend 3 bouts of a 30 second stretch for each body part stretched.

Q: How far does a muscle need to be stretched to attain optimal stretch position?

A: Unknown and may vary depending upon each individual's factors and their particular needs. The muscle should be pulled far enough to feel a pull or mild discomfort just short of the point of pain.

Q: What is the best time of day to stretch?

A: Unknown, but muscles appear to have increased relaxation and pliability after performing a thorough warm up or sports activity.

Q: How many times a day, week, hour should someone stretch?

A: Unknown, but consistency again appears to demonstrate improvements in flexibility and strength. We recommend 5x/week.

Our next article will discuss a warming prior to athletic activity.

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