

Stretching For Athletic Performance: Solving the Myths of Stretching

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After over 10 years of being a physical therapist and athletic trainer, I am still amazed with the lack of information provided to coaches regarding warming up and stretching. It seems like all coaches, parents, and athletes are aware that stretching is important. But there appears to be a lack of current philosophies being implemented by coaches, especially at the junior levels.

Most likely, this is due to the fact that there are many old school beliefs and myths circulating around regarding warming up and stretching. Well, I am here to solve these myths and bring to light some of the current concepts regarding warming up and stretching.

I have made it a habit to ask athletes and coaches how they warm up and stretch for their sport. Most report to me that they run a few times around the field and then grab a ball and start throwing, shooting, etc. When I was in high school I can remember standing or sitting in a circle with my teammates

prior to practice or competition and going through a series of static stretches.

Static stretching involves stretching a body part to the farthest point possible without pain and holding the stretch for a set period of time. I can recall

counting out loud to 10 and then switching to the other side or to another stretch. I am sure that if you observe teams during the warm up phase of the practice, you will see this exact activity



going on. Is this wrong? Isn't it great that we stretched? Well, yes, stretching is a very important part of sport performance and injury prevention. But current research has led us to believe that this static stretching technique is not the best way to prepare for sports. As a matter of fact, long hold stretching has shown to significantly decrease muscle power.

So, remember back in the "old days" when ballistic stretching was popular? Ballistic stretching is defined as bobbing or bouncing motions used to elongate muscles and push body parts past the limits of their current range of motion. And remember when ballistic stretching went out of vogue, and we were told never to bounce when we stretched? Well, guess what, everything comes back around and researchers are now recommending something similar to ballistic stretching, which we now call DYNAMIC STRETCHING.

Dynamic stretching is like ballistic stretching except the movements are slow, controlled and focused on taking the body through the range of motions required for the particular sport the athlete is about to participate in. For example, in volleyball an athlete often strides out into a lunge position to dig a ball. Therefore, walking front and side lunges are a perfect dynamic warm-up prior to volleyball participation.

Ok, what about all of those doctors, trainers, and physical therapists who tell athletes that they need to improve their flexibility to avoid injury or rehabilitate a muscle that has already been injured? Yes, they are correct. Increased muscular flexibility can not only help reduce risk of injury, it can also improve athletic



performance. Does dynamic stretching increase muscular flexibility? NO. Research has shown that in order to permanently lengthen muscles, a stretch must be held for 30 seconds or longer.

As mentioned earlier, this long hold stretching causes the muscle to act fatigued, so therefore an athlete should not work on true flexibility prior to athletic participation. The ideal time to perform long hold stretches is at the end of a practice. This is when the athlete will be warm, have increased circulation, and won't care if he or she gets a bit more fatigued.

Coaches, if you are confused by all of this stretching mumbo jumbo, I will lay it out for you simply. First, athletes should NEVER stretch cold muscles. The beginning of every practice or competition must start with warming the athlete's body temperature. The new terminology for this is of course, DYNAMIC WARM-UP. Many of the old exercises we called "calisthenics" are now part of dynamic warm-up programs, such as jogging, jumping jacks, mountain climbers, and so forth.



Once the athlete has worked up a sweat, he or she can move into dynamic stretching exercises specific to his or her sport. Now the athletes are ready to practice or compete. As soon as the practice or game is over, have the athletes do 10 minutes of static stretches. Coaches, you can use this time to discuss the practice/game or to review upcoming events.

Hopefully this article has cleared up some misconceptions or myths about warming up and stretching. And hopefully I will see less muscle strains in my office for physical therapy!