# Stretching – Static or Dynamic

## Learn when and how to use static stretching for the warm-up.

**The Problem...**

In the field of strength and conditioning the pendulum always swings. Performance enhancement expert Alwyn Cosgrove is fond of saying we over-react in the short term and under-react in the long term. A classic example is the use of, or current disdain for, static stretching. Static stretching has gone from the best way to warm-up to something that no one should ever do again. This illustrates Cosgrove's short-term overreaction and long term under-reaction concept.

Research in the eighties demonstrated that static stretching prior to exercise could decrease power outputs. This led to a huge overreaction; the elimination of static stretching and the birth of dynamic warm-up. This was both a plus and a minus. Dynamic flexibility work has been a huge plus in the performance world as a warm-up technique. The reality is that static stretching was a poor way to warm-up for exercise and that dynamic flexibility or active warm-up is superior. However, **the net effect was a total disdain for static stretching at any time, for any purpose**. The truth lies somewhere in the middle.

One side of the truth is that an active warm-up prior to high intensity exercise is the best way to prevent acute injury. In other words, if you want to decrease hamstring and groin pulls, you need to perform dynamic flexibility exercises prior to practice, games or lifting sessions.

However, there is also truth on the other side of the coin. A lack of flexibility seems to be a cause in many of the gradual onset injury conditions that plague today's athletes. Overuse problems like patella-femoral syndrome, low back pain, and shoulder pain seem to relate strongly to long term tissue changes that don't respond to dynamic stretching.

The fact is that athletes need a combination of both active warm-up exercises and static stretching.

For many coaches, the solution was active warm-up before exercise and static stretching after. Although this seems realistic, the process is somewhat flawed. Post-workout stretching does not seem to produce gains in flexibility. The key may lie in performing static stretching near the beginning of the workout, followed by dynamic warm-up. Static stretching would be done to increase flexibility while the muscle is most prone to increase in length. Dynamic warm-up would follow to prepare the muscles for exercise. Coaches need to think about length changes for long-term injury prevention and dynamic warm-up for short term injury prevention. Both are critical.

**The Answer...**

**1)** Foam roll for 5 minutes to decrease the density of the muscle. Muscles respond to injury and overuse by increasing in density. This increased density is often referred to as a knot or a trigger point. The foam roll is "the poor mans massage." Foam rolling is a great way to get changes in the density of the muscle prior to stretching. I like to think of foam rolling as ironing for the muscles, a necessary precursor to stretching.

**2)** Static stretch. Yes, static stretch. Yes, before the workout. Once the tissue density has been dealt with, we can work on changing the length. Strangely enough most top soft tissue experts are now recommending that muscles be stretched "cold", without the benefit of a warm-up. Simply roll and stretch. The theory is that warm muscle simply elongates and returns to its normal length. Cold muscle may in fact undergo some plastic deformation and increase in length. I like static stretches that make it easy for athletes to stretch. One reason athletes don't like to stretch is that it's hard. Stretches that allow an athlete to use bodyweight and positioning to their advantage are a big plus for athletes.

**3)** Dynamic warm-up. The process for athletes should be the same every day. Foam roll to decrease knots and trigger points. Static stretching to work on increasing flexibility. Follow that up with a dynamic warm-up.

Rules for Static Stretching:

1. Positioning is everything. Be specific about how you want someone to stretch. Most people don't stretch; they just try to look like they are stretching.
2. Good stretching is uncomfortable but, not painful. Know the difference. A little discomfort means you are well positioned.
3. Use different techniques. Activate the antagonist; do long statics; use active stretches.
4. Use the athlete's bodyweight to assist. Make them both comfortable and uncomfortable at the same time.
5. Stretch all areas. Don't focus on one. We make sure we include one for each of the following - Adductors - Hip flexors - Lateral Hamstring - Hip Rotators

Trainer and Strength Coach Peter Freisen has a theory. He thinks it is more dangerous to be overly flexible in one muscle group than to be tight in all of them. Don't just do the stretches you like or are good at, in fact maybe eliminate or abbreviate the ones you are good at and work harder on the ones you don't like.

**Bottom line, stretching is highly underrated. If you want to be healthy long term, add some good old-fashioned stretching to the workout**.

Article by Brad Walker and Injury Fix™

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