

FLEXIBILITY, HOW MUCH IS ENOUGH?

Fitness Issues

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Have you ever asked yourself, your health club staff, your doctor or therapist this question? All that is said and written about flexibility is that it is an aspect of physical fitness and that stretching must be done to maintain or increase it. Think about this short story:

An elderly man finds it difficult to reach his arm up to a shelf in his kitchen to obtain a can of soup. Our initial conclusion is that this man's shoulder and arm muscles are tight or "inflexible" and in need of stretching. However, there may be nothing wrong with his flexibility. The man's shoulder muscles may be extremely weak. The weight of his own arm represents too heavy a mass to easily reach up and grasp the can of soup. Without performing any particular stretching procedures, if we were to simply increase the strength of his shoulder and arm muscles, he would be able to effortlessly reach up and take the can of soup from the shelf.

From this simple example, can we say that muscular strengthening will enhance joint flexibility without the use of conventional stretching techniques?

Does Stretching Prevent Injuries?

Technically speaking, there is no such thing as "muscular flexibility". Our joints flex (bend), and our muscles contract (condense). These are very important semantics to consider and understand. Army physiotherapist, Rod Pope, along with colleagues at the University of Sydney, conducted a recent study showing NO evidence that stretching prevents injury. In fact, Pope states, "We were able to rule out even a quite small effect on stretching." This study monitored 2600 army recruits over a year of randomized, controlled trials. Some performed stretching before exercise; the others performed no stretching at all. Pope adds, "This has not been properly researched before." In addition, Dr Stanley Plagenhoef of the University of Massachusetts and Dr. Richard Dominguez, of Loyola University Medical Center have investigated claims that flexibility programs lend protection to athletes. They did not find a single study that concluded or even supported such a widespread belief. Both doctors agree that sports medicine professionals currently overrate the importance of flexibility. After reviewing the research, Dr. Plagenhoef expressed these two conclusions:

- 1. If the joints are surrounded and** supported by stronger muscles, then the chance of any trauma is reduced.
- 2. If a joint becomes more flexible** without a corresponding increase in muscular strength, injury probability is increased." (This extremely important point "...corresponding increase in muscular strength..." continues to elude the mainstream fitness industry.)



Furthermore, only recently has the American College of Sports Medicine and the American Council on Exercise realized the potential dangers of stretching, and have abandoned all recommendations of ballistic forms of stretching. However, they continue to promote other ballistic forms of physical activity. Although this is a step in the right direction, it is still insufficient for purposes of safety.

Is Stretching Needed?

For most people, stretching procedures performed to increase flexibility are unnecessary for fitness purposes. There are certain forms of stretching procedures that are sometimes necessary to perform. These procedures are usually administered by physicians or physical therapists to bring back normal range of motion to a joint or muscular structure that has been injured. However, for the typical person, forcing joints to move into positions that are only required by individuals participating in activities or sports such as martial arts, ballet, gymnastics, etc., is not needed for the performance of daily activities, exercise or health reasons. It can permanently increase the length of the ligaments (ligaments are the anchors of the joints) causing joint instability and increasing the risk of physical injury.

What is the Best Way to Enhance Flexibility?

You will notice that the above question does not say, “increase” flexibility. Clearly, the ability of the muscles to fully contract and lengthen so that the joints can flex and extend throughout a normal range of motion is an important aspect of physical fitness. However, stretching is not the safest or even the most appropriate way to achieve it. The mobility of any joint is determined by several factors. However, flexibility is primarily determined by muscular strength. Our ability to voluntarily move our joints is entirely dependent upon muscular strength. (Without muscles we would not move at all.) This being the case, what good is it for us to have marionette-like joints if this condition is nothing more than joint instability? Ellington Darden, Ph.D., one of the most widely published and respected exercise physiologists in the field of fitness today, has this to say about flexibility:

“The supporting muscular strength about a joint is essential for its integrity. Stronger muscles possess better tonus and contribute greater stability at rest as well as during activity. And contrary to popular belief, stronger muscles are generally more flexible muscles. Flexibility is adverse when it becomes excessive with respect to the joints. Increased flexibility can cause injury!”

You cannot make a rubber band more elastic by continuously stretching it to its limits. Constantly pulling and tugging on a rubber band will eventually cause it to become permanently over-stretched. In order to enhance the elasticity of a rubber band, you must somehow change its molecular structure. This is the same for the muscles. Thankfully, this can be achieved by engaging in an activity that, when performed properly, is far safer and much more productive than stretching. This activity is strength training. When performed properly, strength training will enhance the natural range of motion of every joint in the body that is addressed if the joints require it. The reason for this is simple. As muscles become stronger, they experience superior blood flow making them more pliable, more elastic – more conducive to allowing the joints to flex and extend throughout a normal range of motion. And, as stated before, stronger muscles stabilize joints that are plagued with problematic joint laxity as a result of over-stretched tendons and ligaments often caused by stretching procedures! This is why Pope adds, “We are telling the army to no longer stretch.”

Contrary to popular belief, strong muscles are not tight muscles. (If they were, do you think gymnasts would be able to do what they do?) The safest and most efficient way to obtain enhanced flexibility, without causing joint instability, is by engaging in muscular strengthening exercises that work each joint throughout a full, pain-free range of motion. If you value the integrity of your joints, ask yourself, “How much flexibility is enough?”