Stretch Your Limits

- By Bob Budai

It’s boring, it takes too long, I don’t know how/when/how much, it hurts, I don’t need it – all common excuses for not stretching.

While it’s true that one cannot “see” flexibility, a lack of flexibility is one of the most commonly felt areas of fitness. Anyone who has experienced musculoskeletal pain anywhere throughout the body has likely had some level of corresponding muscular tightness. Dr. Vladimir Janda described predictable patterns of muscle imbalances which included tightness in one area of the body and weakness on the opposite side, referred to as Upper and Lower Crossed Syndromes. Much research has been done regarding the frequency, duration, time, and intensity of stretching. As with most areas, all the contradictory opinions cause a “paralysis by analysis”, and gives people one more excuse to not do it. Confusing terms are used like: Proprioceptive Neuromuscular Facilitation, Reciprocal Inhibition, and Myofascial Release. Let me try to simplify (perhaps oversimplify) things.

Why is flexibility important?

**Reduced risk of injury**

A lack of flexibility causes muscle imbalances, which can cause injury, pain, and tension throughout the body. I also need to say that there can also be excessive flexibility, which can cause injuries as well.

**Improved performance**

The same muscle imbalances can prevent opposing muscles from firing, thereby promoting weakness in those muscles. When there is tightness and weakness around a joint, one cannot produce optimum movement for work, sports, play, etc.

Why do we lose flexibility?

**Trauma/Injury and Immobilization**

With trauma/injury, scar tissue forms within tissues to protect the injured area. If not addressed properly, the scar tissue continues to prevent proper movement after the protective phase has ended. The longer the scar tissue has been present, the more difficulty it generally is to change. Besides the actual trauma/injury, immobilization (a period of restricted/absent movement in a joint) causes a lack of flexibility. Common periods of immobilization occur with casting/bracing after an injury, and prolonged bed rest for various reasons. Immobilization also occurs to a lesser degree when daily activities include maintained positions for prolonged periods, i.e. sitting all day at work.

**Aging**

We lose flexibility with age – simple enough, you can’t change your age, moving on.

**Not doing it**

People generally don’t like to stretch. Whether for the reasons previously mentioned or a multitude of others, if you don’t use it you lose it. It is never too late to start stretching, so get to it.

Types of stretching

**Static vs. Dynamic**

Static stretching is the type most often thought about, where a stretch is held for an extended period of time. Dynamic stretching includes any stretching where movement is involved. One type of dynamic stretching is ballistic stretching which is often thought of as “bouncing” while stretching. People are often told that this type of stretching is bad and will cause injury. While uncontrolled ballistic stretching can promote injury, a more controlled version can often improve performance and prevent injury better than its static counterpart. The point is, there is no bad stretching, only stretching performed badly. The need for flexibility depends on the activity and the person, and a combination of different types is usually the most effective.

**Passive vs. Active**

Passive stretching is where an external object is holding the stretched body part, whether it’s another person, a chair, wall, etc. Active stretching is when the body part being stretched is brought into that position and held with its own force. An example is to lay on your back and raise your straight leg towards the ceiling and hold it there using just your leg to raise itself. The benefit of passive stretching is that the stretched body part can often be stretched further. Active stretching is beneficial because contracting the opposite muscle causes relaxation of the stretching muscle. Again, variety is a good thing.

**Flexibility vs. Joint Mobility**

Flexibility refers to the muscles and tendons along a body part, joint mobility is the ligaments and other connective tissues directly surrounding a joint. Oftentimes, a person’s feeling of “tightness” is due to a lack of joint mobility vs. muscle flexibility, but that is another article.

How long and when to stretch?

There is research to show benefits from static stretching for 10 sec. on up. The general goal for people is 30-60 seconds. However, 30-60 seconds is often the goal only because people do not have the patience or the control to last longer; and they don’t go shorter than 10 seconds because “ballistic stretching is bad”. Most sports require a certain amount of dynamic or ballistic flexibility. Think about it, what sports other than gymnastics or dance (and a few others) require you to maintain a stretched position for longer than a second? If quick flexibility is required, then quick flexibility has to be trained. Again, mix it up.

When to stretch is somewhat controversial, but it is fairly well agreed that an initial warmup, which includes movement to promote bloodflow, is beneficial prior to static stretching, and that the greatest gains in flexibility will occur if stretching is performed after the actual workout, sport, etc. For those who believe in dynamic stretching, there is more of a place for that at the beginning of the workout or prior to sport/activity.

Sample stretches

**Dynamic calf stretch**

Standing in a lunging position against a wall with the back foot flat on the floor and knee straight, as in a typical calf stretch. Pick the front foot off the ground while maintaining a stretch in the back calf, and rock your hips side to side in a controlled way. Do 10-20 rocks with the hips. Repeat 2 times per leg.

**Flexband Hamstring**

Lay on your back with a strong band wrapped around one foot. Keeping both knees straight, use the band to lift the one leg (with the band on it) as high as you can while maintaining a straight knee. Lower the leg and repeat. Hold at the top for only 1 second, but make it a strong stretch. Repeat 10 times, then hold the last one up for 20-30 seconds. Do 2 times per leg.

**Prone Piriformis**

Face the ground on your hands and knees. Cross one leg over the other and slide the leg back so your front knee comes towards the opposite shoulder. A stretch should be felt in the butt/hip on the forward leg side. Hold 30-60 seconds, 2-3 times per leg.

**Groin stretch (butterfly)**

Sit up straight with the soles of the feet together. Hold your ankles with your hands and pull them towards your body as far as possible. Use your elbows to push your knees down as far as possible. Maintaining a straight spine, lean forward as far as possible. Hold 30-60 seconds, 2-3 times.

**Lunging Hip Flexor**

Get into a lunging position, with the front foot pretty far forward. Lunge your hips and torso forward while maintaining a vertical torso and tight abdominals. A stretch should be felt in the front of the hip and/or thigh on the back leg. Rock into a stretch, hold 20-30 seconds, then rock back. Repeat 3 times per leg.

**Flexband Shoulder**

Using a somewhat firm band – hold in front of your body and move behind your back while maintaining straight elbows the entire time. Hold at each point that you feel a stretch for 5-10 seconds and repeat 5-10 times.

A couple of final notes: a weak muscle often gets tight. So in addition to stretching those areas, don’t forget to strengthen them as well. And, stretching can be performed more often than strengthening – start 3-4 times per week, up to 6-7 days if no detrimental effects are observed.

For more information on stretching, contact Bob at [bob@functional-strength-training.com](mailto:bob@functional-strength-training.com), or visit his website at [www.functional-strength-training.com](http://www.functional-strength-training.com)