

Stretching

What is stretching?

1. Stretching involves the use of exercises to elongate the myofascial system and improve the range of joint mobility. Stretching makes an impact by altering neurological communication to the muscle and also by changing elasticity of the fascia, tendons, and joint capsules. Hormonal, structural, cellular and neurophysiological changes have all been noted to impact elasticity of our connective tissues.
2. Stretching also increases mechanical loads through tendons and muscles which help build their tensile strength. Collagen fibres are stimulated to remodel through load stress which is helpful in tendonopathy problems like Achilles tendinitis.
3. Regular stretching can improve the stretch tolerance which can allow for greater gains of motion if needed.
4. Stretching impacts the fascial system that connects all parts together. We often think of stretching individual muscles, but we are really impacting the whole body through the fascial network.

Why stretch?

1. Stretch to optimize functional movement of muscles, joints and tendons. This can facilitate performance and may decrease injury risk.
2. Dynamic stretching can be part of warm up procedures to prepare the body to move well in sport.
3. Understand the joint mobility requirements that are optimum for your sport and evaluate your existing capacity. In swimming, good shoulder and ankle flexibility is an asset for better technique. Runners need adequate hip and ankle flexibility to allow for good movement patterns, but too much flexibility can negatively affect running economy. Running uses the elastic spring of connective tissue for efficiency of motion and propulsion. There can be a fine line between what helps performance and what increases injury risk.
4. Know your own body to understand if you have to work on mobility, stability or both.
5. Stretch because it is meditative and stimulates the parasympathetic part of the autonomic nervous system to relax and recover.

6. Injuries cause muscle imbalances that can be corrected with a combination of mobility and stability exercises.

Who should stretch?

1. Most people, but not everyone. Some people are too mobile already and with some injury conditions, stretching can be counterproductive.
2. People who are on the mid to stiff end of the collagen elasticity spectrum will benefit more than those who are already very flexible.
3. Most people who do a lot of repetitive activity, either static (i.e. sitting) or dynamic (i.e. running) will develop imbalances that can benefit from stretching.
4. Most people as they age. Collagen fibres, the make up of all connective tissue, gets less elastic with age.
5. When you start new activities or increase weight training programs, muscles may get tighter from the new stress.
6. Injuries predispose people to muscle imbalances where some muscles get tight and others get weak. This occurs from compensation patterns or protection strategies.

When or who should not stretch?

1. If you have a hypermobility condition then stretching may be counterproductive. It is possible to be too flexible, especially if surrounding supporting musculature is not strong.
2. Nerve related injuries like sciatica or thoracic outlet syndrome may be aggravated by stretching pathways that follow the nerve track. Nerve gliding techniques may be more effective in these circumstances. Stretching of muscles in the region may be beneficial as long as the body is not overprotective.
3. Stretching should not be painful and any discomfort should not last longer than the stretch session. In some injury situations aggressive stretching is required but in general, stretch programs should not hurt.
4. Aggressive stretching before plyometric performance like sprinting, kicking or jumping can inhibit performance and may predispose to injury.
5. With some injuries, stretching is not advised in early phases of healing.
6. Stretching should not cause numbness or tingling.

When to stretch

1. Just about any time. Stretching is usually more effective after warm up, but you can also warm up through stretching.
2. With arthritic joints one should wait until morning stiffness decreases (i.e. 30 minutes).
2. Evidence suggests that prolonged, aggressive stretching before explosive types of activity (i.e. sprinting and jumping) may alter movement patterns and can predispose to injury. This applies more to those that do not usually stretch and then do an excessive amount.
3. End of day stretching can unwind the body from the postural strains of sitting
4. Regular stretching (i.e. most days) is more effective than sporadic stretching for gaining mobility.

Where to stretch?

Anywhere, anytime, anyplace.

How to stretch?

1. Warm up with light cardiovascular exercises or active range of movement (arm or leg swings) can be beneficial as warmer muscles will relax more easily. (5- 10 minutes).
2. Slow static stretching ranging from 30 seconds to five minutes have all been shown to increase flexibility.
3. Generally aim for at least a minute of each stretch (i.e. twice for 30 seconds)
4. Stretching should not hurt, but you need to feel some strain on the tissue (70-90% to point of discomfort)
4. Daily stretching will generally demonstrate good results after six weeks. Then you may need to stretch three times a week to maintain gains.
5. Be aware of posture and do not put too much strain on the lower back or neck with excessive bending or extending.

At the very least, stretch like Dave Procter, 'because it feels good!'

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