



# FACT SHEET

## Strength and Conditioning



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### Commonly Used Stretch Techniques:

- **Dynamic:** involves moving parts of your body gradually increasing reach, speed of movement, or both. Improves dynamic flexibility and is useful as a warm up prior to workout or competition. Limbs are moved through a range of motion similar to that of athletic movement.
- **Active:** uses the tension of agonist muscles to help relax the muscles being stretched (antagonists). Assume a position and hold it there with no assistance except the strength of your agonist muscles. Increases muscle flexibility and strengthens the agonistic muscles.
- **Passive:** Uses another part of your body to hold a stretch in a static state. You can also use a partner or another assistant device. Relaxed stretching is good for cooling down or relieving spasms.
- **PNF:** Proprioceptive neuromuscular facilitation is a combination of passive stretching and isometric contractions. It encourages flexibility throughout the limbs entire range of motion. This type of stretching is usually more effective with a partner.

## FLEXIBILITY AND STRETCHING

Flexibility is defined as the range of motion of a joint. Although genetics play a role in flexibility, it can be increased or improved through stretching exercises. Many times stretching and flexibility are used synonymously with each other. Some individuals are flexible without stretching while, on the other side, some people can stretch without gaining flexibility.

Flexibility is determined by the bony construction of a joint and the soft tissues surrounding it. Soft tissues include ligaments, joint capsules, tendons and muscles crossing the joint, subcutaneous fat, and skin overlaying the joint. Certain joints permit more motion because of their construction. Tendons and muscles crossing a joint can also affect its range of motion (ROM). If the skin over a joint has been injured, ie: scars, etc, then the area may not stretch as the joint moves therefore limiting motion.

### Effects of Stretching

Stretching is used to help increase range of motion, reduce injury, and improve performance. With better range of motion, biomechanics are improved and overuse injuries can be decreased. Stretching can also help to alleviate cramps.

### Uses in Sport

Stretching is a useful tool for an athlete in many different situations. Certain forms of stretching such as a dynamic warm up will help improve flexibility prior to training or competition. Static or passive stretching is used most often post workout or competition or at regular intervals throughout the day. Review the commonly used techniques to the left to determine which type of stretching is best for your situation or ask a USSA strength coach or athletic trainer.

### Cautions

All stretches should be done in a controlled manner. If a stretching sensation is felt anywhere other than in a muscle or tendon, the position may be incorrect. Overstretching or stretching to a point where pain is felt is inappropriate and can be detrimental. Stretching should increase the length of muscles and tendons and not stress the joints or ligaments.



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