



STRETCHING

Benefit of stretching

- **1. Increases your flexibility** Improve flexibility helps you to perform everyday activities with relative ease, and help delay the reduced mobility that can come with aging.
- **2. Increases your range of motion** Being able to move a joint through its full range of motion gives you more freedom of movement.
- **3. Increases blood flow to your muscles** Improved circulation increases blood flow to your muscles, which can shorten your recovery time and reduce muscle soreness; DÓŠ
- **5. Improves your posture** Muscle imbalances are common and can lead to poor posture.
- **6. Prevent back pain** Tight muscles can lead to a decrease in your range of motion. When this happens, you increase the likelihood of straining the muscles in your back.
- **7. Stress relief** When you're experiencing stress, your muscles get tense. That's because your muscles tend to tighten up in response to physical and emotional stress. Focus on areas of your body where you tend to hold your stress, such as your neck, shoulders, and upper back.
- **8. Can calm your mind** While you stretch, focus on mindful & meditation exercises

THREE COMMON STRETCHES

1. Static stretching: is a broad term that includes all forms of stretching where you hold a stretch in a fixed position for a specific time period. This is executed by extending the targeted muscle group to its maximal point and holding it for 30 seconds or more.

A. Active Static Stretch . An **active stretch** is one where you assume a position and then hold it there with no assistance other than using the strength of your agonist muscles.

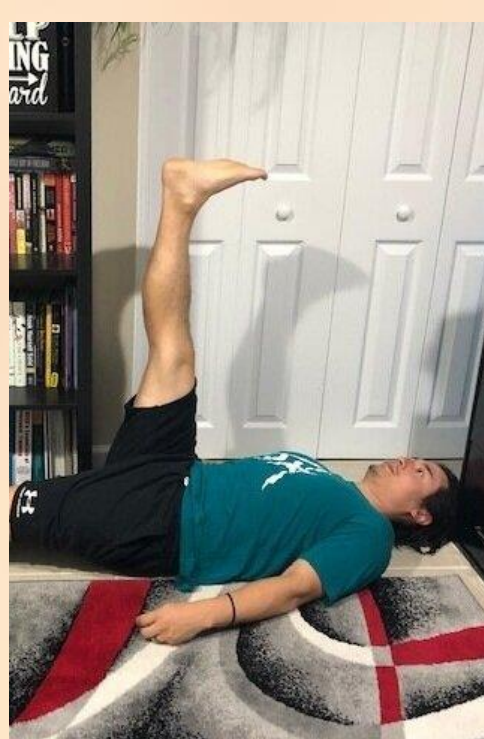
B. Passive Stretch is defined as a form of **stretching** where an outside force is applied to a limb. This force may be a partner assist, a strap, gravity, or one's body weight.

2. Dynamic stretching requires the use of continuous movement patterns that mimic the exercise. It involves moving the muscles through a full range of motion, without anything more than a brief pause in any one position. Generally speaking, the purpose of dynamic stretching is to improve flexibility for a given activity.

3. PNF Stretching Proprioceptive neuromuscular facilitation (PNF) stretching relies on reflexes to produce deeper stretches that increase flexibility.

Active Static Stretches

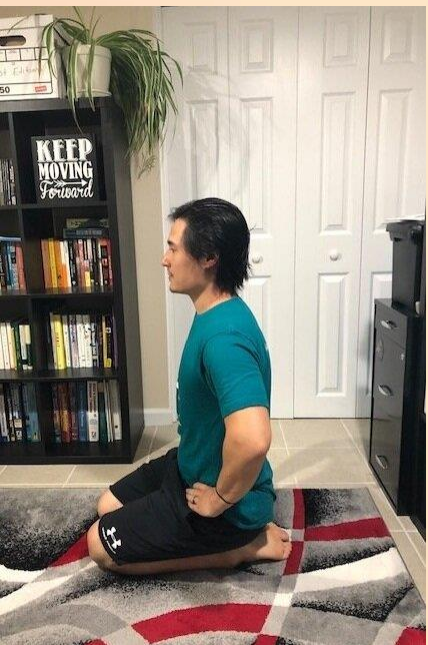
1. A. Active static stretching involves contraction of the muscle group (agonist) that is in opposition of the muscles that you are stretching (antagonist)
 - Active static stretching requires the strength of the **opposing muscle groups** to hold the limb in position for the stretch.
 - **Rather than holding for long periods of time as you would with a static passive stretch, these are going to be much shorter holds, usually ranging from 4-10 seconds for several reps. Sound familiar? Most yoga routines are filled with awesome active stretching exercises.**
 - One of the main benefits of active stretching is that carries (relatively) fewer risks than passive stretching. Since there's no external force, and a stretch is performed completely under one's own muscle strength, then there's less chance of over-stretching.



ACTIVE STRAIGHT LEG RAISE

Targeting tight hamstrings and calves

- 1.Start with both legs straight and feet together. Raise one leg up, and prop it in a straight, relaxed position. There should be a slight stretch.**
- 2.Keeping your hips level, brace your core, squeeze your quadriceps on your elevated leg and flex your foot back into dorsiflexion. Exhale as you pull your leg towards your head until you feel a strong stretch.**
- 3.Hold for 3 seconds. Relax and repeat for 10 reps, trying to slightly increase your range each time.**
- 4.Repeat on opposite side**



TALL KNEELING HIP EXTENSION

Targeting tight hip flexors

- 1.Begin sitting on the heels (or a yoga block).**
- 2.By squeezing the glutes, exhale and raise the hips up and forward to an arched position. Hold the shoulders back, not allowing them to move forward.**
- 3.Hold for 10 seconds, squeezing the glutes throughout. Repeat for 5 reps.**

Passive Static Stretches

1. B. Passive stretching is a technique in which you are **relaxed (vs active agonist contracting muscle)**, and make no contribution to the range of **motion**. Instead, an outside agent creates force, either manually or mechanically. You don't usually have to work very hard to do a passive stretch, but there is always the risk that the external force will be stronger than you are flexible, which could cause injury.
- Passive stretching stay in one position for a set time. You're able to relax your body while a partner, accessory, or prop intensifies the stretch by putting external pressure on your body. You can also use the floor or a wall.



Safety tips

- **Don't stretch beyond what's comfortable.** A slight degree of discomfort is normal, but you shouldn't feel any pain while you're stretching. Stop right away if you feel sharp pain.
- **Be gentle.** Use smooth, slow movements. Avoid jerking or bouncing movements while you're holding a stretch. Be extra cautious if you're recovering from an injury.
- **Don't forget to breathe.** Breathing can help relieve stress and tension in your body, and may also help you hold a stretch for longer.
- **Start slowly.** Start with just a few stretches at first, and add more repetitions and stretches as you build your flexibility.

Dynamic stretching

Dynamic stretching uses a controlled, soft bounce or swinging motion to move a particular body part to the limit of its range of movement. The force of the bounce or swing is gradually increased but should never become radical or uncontrolled. Do not confuse dynamic stretching with ballistic stretching. Dynamic stretching is slow, gentle and very purposeful. At no time during dynamic stretching should a body part be forced past the joints normal range of movement. Ballistic stretching, on the other hand, is much more aggressive and its very purpose is to force the body part beyond the limit of its normal range of movement.

These exercises often simulate functional movements and help prime the body for more intense training.

- To prepare for a run, for example, a person may perform a knee exercise that is a gentle simulation of running, such as the “high knees”. A walking lunge, is another example of a dynamic stretch



PNF Stretching

Proprioceptive Neuromuscular Facilitation

- PNF stands for Proprioceptive Neuromuscular Facilitation, and is implemented as a way to utilize the neuromuscular system to bring about a relaxation response in targeted muscle groups.
- It is an advanced form of flexibility training. It involves the contraction and stretching of muscles
- The increased stretch response is thought to arise from a combination of **autogenic inhibition** (decreased excitability of the muscle fibers due to inhibitory signals), **reciprocal inhibition** (which occurs in the targeted muscle when the opposing muscle is contracted), **stress relaxation** (the muscle tendon unit gradually elongates as a stretch is held for time), and **gate control theory** (when pain and pressure are sensed simultaneously, the sensation of pressure overwhelms the sensation of pain, causing the Golgi tendon organ sensors to decrease their inhibition of muscle lengthening).
- PNF stretching techniques are usually performed with a partner and involved both passive movements and active (concentric and isometric) muscle actions. PNF stretching involves alternating strong contraction of the muscle being targeted for stretching, followed by relaxing deeply into the stretch

A common protocol is to apply a near maximal contraction for six seconds, followed by relaxation into the stretch for ten seconds — repeating the sequence for four total sets.

For example, to stretch the hamstring muscle group, one can lie supine and reach one leg up toward the ceiling. A partner can hold the back of the heel to provide isometric resistance. Keeping the knee straight and the pelvis stable, press the heel into the resistance of the partner's hand for six seconds. Apply near maximal force; be sure to continue breathing. Then relax into the stretch for ten seconds, while the partner applies gentle pressure to assist further stretching of the hamstring muscles. Repeat three more times.





**Stretching exercises promote
flexibility, so you move
fluidly.**

Denise Austin