

HOW TO IMPROVE YOUR FLEXIBILITY

Why Is Flexibility Important?

Flexibility and full range of motion are essential for athletic performance. In some activities (for example, gymnastics, karate, diving, ballet), **hyperflexibility** is necessary for high-level performance. Normal gait and running patterns can be severely hampered by lack of flexibility and range of motion in the legs.

Flexibility requirements vary among sports. Gymnastics necessitates excellent overall flexibility; swimming requires excellent shoulder/upper body flexibility.

Good flexibility also helps prevent injuries. A tight muscle group performing at an optimal level is at high risk for injury. A joint that is unable to move through its full natural range of motion because of joint capsule tightness or muscle inelasticity is more susceptible to sprains or strains if forced to move beyond its available motion.

What Is Flexibility?

The terms flexibility and range of motion are often used interchangeably. There are, however, several differences:

Flexibility refers to the ability of muscles to elongate as a joint moves through a range of motion. Flexibility can be increased through specific exercises. It can also be decreased through inactivity and disuse. Flexibility is influenced by muscle and tendon elasticity and by the nervous system's ability to relax a muscle group.

Range of motion refers to the movement of a specific joint. Range of motion is influenced by

- Bone congruence (the degree of "fit" between adjacent bones in a joint)
- The joint capsule (structure that separates the joint from the surrounding tissue)
- Ligaments (structures connecting bone to bone)
- Flexibility of muscles and tendons (structures connecting muscle to bone)

How Should Stretching Be Done?

1. **Static stretching** is the most popular and safest method of stretching. Static stretching involves moving a joint to the extreme of comfortable motion and holding that position for 10 to 30 seconds or longer. Several repetitions (usually 10) should be performed.
2. Avoid **ballistic** (bouncing) stretching. Bouncing (as in a bouncing toe-touch exercise to stretch the hamstrings) has the potential to strain or tear a muscle.
3. **Precede stretching with heat.** Heat increases muscle elasticity. A warm-up exercise, such as running in place or pedalling an exercycle, should be performed for at least 5

minutes before stretching. (Torg JS, Welsh RP, Shepard RJ. Current therapy in sports medicine—2. Toronto: Decker, 1990.)

General Flexibility Program

1. **Neck roll:** sitting or standing
Slowly move your head in a clockwise direction. Then reverse to a counterclockwise movement.



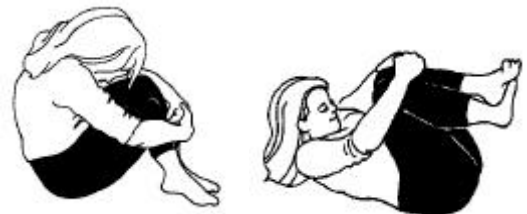
2. **Side bend:** standing
Gently pull your elbow behind your head while bending from your hips to the side. Hold an easy stretch for 10 seconds. Repeat on other side. Keeping your knees slightly bent will help you keep your balance.



3. **Shoulder stretch:** standing
Reach behind your head and as far down as you can with your left hand, palm in, and try to grab your right hand coming up, palm out. Hold. Repeat with right hand behind your head.



4. **Back stretch:** sitting on floor (mat or rug)
In a sitting position, held your knees with your hands and pull them to your chest. Gently roll up and down your spine, keeping your chin down toward your chest. Try to roll evenly and with control. Roll back and forth 4–8 times. Don't rush!



5. **Groin stretch:** sitting on the floor



Put the soles of your feet together and hold on to your toes. Gently pull yourself forward, bending from the hips, until you feel a good stretch in your groin. Hold for 30 seconds. Try to get your elbows on the outside of your legs so the stretch position has stability. If you have trouble bending forward, move your feet farther out in front of you.

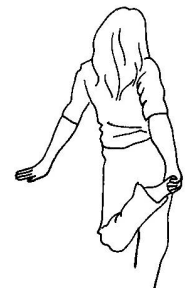
6. **Hamstring stretch:** sitting on floor

Use the straight-leg, bent-knee position. Slowly bend forward from the hips toward the foot of the straight leg until you feel a stretch in the back of your thigh. Hold for 20 seconds. Keep the foot of the straight leg up. Don't dip your head down.



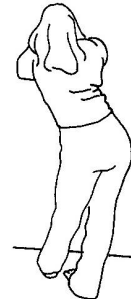
7. **Quadriceps stretch:** standing, with hand on support

Hold the top of your right foot with your left hand. Gently pull your heel toward your buttock. Hold for 30 seconds. Repeat with opposite leg.



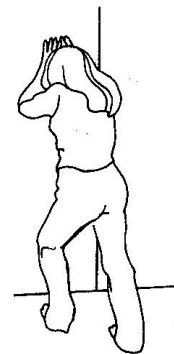
8. **Hip stretch:** Stand 2–3 ft. away from and facing a wall.

Rest your forearms on the wall with your forehead on the back of your hands. Stretch the right side of your hip by slightly turning your right hip to the right as you lean your shoulders slightly to the left. Keep back foot pointed straight ahead with heel flat on the floor. Hold for 20 seconds. Repeat with left hip.



9. **Calf stretch:** Stand 2–3 ft. away from and facing a wall.

Rest your forearms on the wall with your forehead on the back of your hands. Bend one knee and bring it toward the wall. The back leg should be straight with the foot flat and pointed straight ahead. Now, without changing the position of your feet, slowly move your hips forward as you keep your back leg straight and foot flat. Hold the stretch for 20 seconds. Repeat with other leg.



Reference: Anderson Bob. *Stretching*. Bolinas, CA: Shelter Publications, 1980.