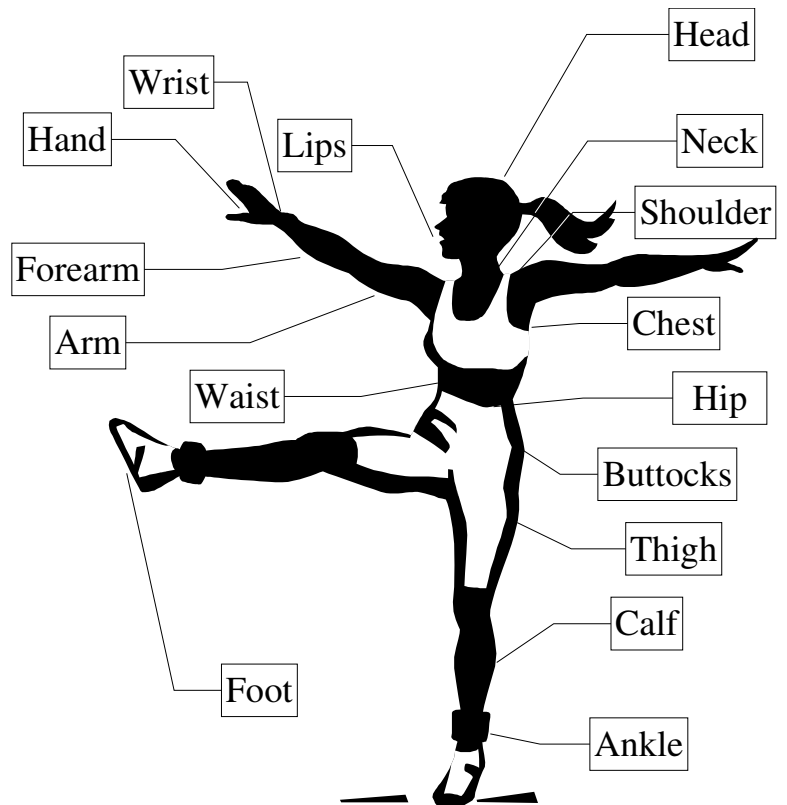


# STRETCHING

by Paola Ferrari



*This lesson could be preceded by a lesson on the parts of the body (see picture aside; the girl in the picture is taken from Microsoft® Office Clipart Gallery).*

Stretching means extension and indicates a particular technique of physical training. These exercises essentially aim to increase flexibility.

But what is flexibility?

Flexibility is the ability of a joint to move through a full range of movements.

Flexibility- training (stretching) helps rebalance muscle groups that might be overused during exercise or physical activity or as a result of bad posture. It's important to clearly understand the many benefits that result from a good flexibility program.

This subject was of great interest to the Medical Profession already 20 years ago when stretching exercises were used in Rehabilitation Therapy.

## **Improved physical performance and decreased risk of injury**

First, a safe and effective flexibility training program increases physical performance. A flexible joint has the ability to move through a greater range of movements and requires less energy to do so , while greatly decreasing your risk of injury.

Although there is still some controversy over which flexibility exercises are the best and how often one should stretch, all fitness professionals agree that stretching is the safest and most effective flexibility training .

Recent studies show that slow, static stretching helps reduce muscle soreness after exercise.

Static stretching involves a slow, gradual and controlled elongation of the muscle through the full range of movements held for 20-30 seconds in the furthest comfortable position (without pain ).

Stretching also improves muscular balance and posture , and causes muscular relaxation by reducing accumulated toxins .

Stretching increases tissue temperature which in turn increases circulation and nutrient transport. This allows greater elasticity of surrounding tissue and increases performance. Increases joint sinovial fluid, which is a lubricating fluid that promotes the transport of more nutrients to the joints' articular cartilage.

This allows a greater range of movements and reduces joint degeneration.

Another known benefit is increased neuromuscular coordination. Studies show that nerveimpulse velocity (the time it takes for an impulse to travel to the brain and back) is improved with stretching. This helps opposing muscle groups work in a more synergistic, coordinated fashion.

## **ALWAYS WARM-UP BEFORE STRETCHING**

A warm muscle is much more easily stretched than a cold muscle. Never stretch a cold muscle but always warm-up first in order to get blood circulating . A warm-up should be a slow, rhythmic exercise of the larger muscle groups done before an activity. This provides the body with a period of adjustment between rest and the activity. The warm-up should last about 10 minutes and should be similar to the activity that you are about to do, but at a much lower intensity. Once you have warmed up at a slow pace and have gotten your muscles warm, you can now stretch.

I recommend stretching both before and after exercise, for different reasons.

Stretching before an activity (after the warm-up ) improves dynamic flexibility and reduces the chances of injury. Stretching after exercise ensures muscle relaxation, facilitating normal resting length , circulation to joint and tissue structures , and removal of unwanted waste products thus reducing muscle soreness and stiffness.

To get the most from your stretching, you need to customize your routine to fit your needs.

One way to do this is to stretch until you feel a slight pulling but no pain. As you feel less tension you can increase the stretch again until the same slight pull is felt. Hold this position until you feel no further increase of tension.

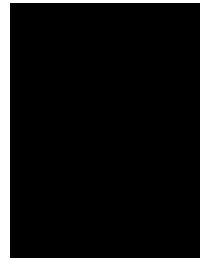
Be sure to do these stretches slowly, making your movements as fluid as possible.

And don't stretch beyond your limits. If you feel any strain , stop and take a rest before going on to the next stretch. There is no set length of time or number of times associated with these stretches. The key is to “*listen*” to your body and avoid rushing, abrupt movements, and strain.

## Doorway chest stretch

Muscles stretched: **chest and anterior shoulder**

- stand directly in the middle of a doorway
- with triceps parallel to the floor , place your forearms against the inside of the door
- slowly step forward to the furthest comfortable position , so that you feel a slight stretch in the chest and anterior shoulder muscles hold this position for at least 20-30 seconds



## Chest and shoulder stretch

Muscles stretched : **anterior shoulder and chest**

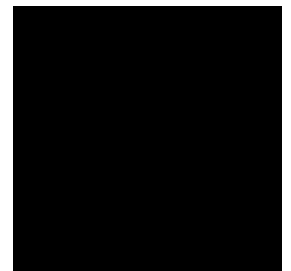
- stand upright with shoulders back, chest out, and feet wide apart
- clasp your hands behind your buttocks
- slowly lift your hands up and away from your body until they have reached the furthest comfortable position
- keep your chest out and your chin in
- once you feel a comfortable stretch in your chest and anterior shoulders , hold this position for at least 20-30 seconds



## Posterior shoulder stretch

Muscles stretched: **posterior shoulders**

- stand upright with feet wide apart
- with your right hand , reach across your body and hold on to the edge of a wall; your arm should be parallel to the floor turn slowly away from the wall until you feel a comfortable stretch in your right shoulder
- hold this position for at least 20-30 seconds
- repeat stretching the other side



## Tricep stretch

Muscles stretched: **triceps**

- stand upright with shoulders back and chest out, and feet wide apart
- raise your right arm overhead with your elbow bent and your upper arm in vertical position
- keeping this position , rest your left hand on your right elbow and slowly pull it down until you feel a comfortable stretch in your right triceps
- hold this position for at least 20-30 seconds
- repeat stretching the other arm



## Spinal twist

Muscles stretched : **hips and lower back**

- sit on the floor with both of your legs extended in front of you
- bend your right leg over your left leg keeping your right foot flat on the floor outside the left knee
- place your left elbow on the outside of your right knee and extend your right arm behind you with your palm flat to the floor for support
- slowly twist your upper body to the right while looking over your right shoulder
- lightly apply pressure with your left elbow on the outside of your right knee as you twist. Be sure to keep your upper body straight.
- once you feel a comfortable stretch in your hips and lower back, hold this position for at least 20-30 seconds
- switch sides and repeat

## Standing quadriceps stretch

Muscles stretched: **quadriceps**

- stand a step ( pace ) away from wall or something that you can lean on or hold on to
- place your feet hip-width apart and place your left hand against the wall for balance
- raise your right foot behind your body until you can grasp it with your right hand .
- keeping your thigh perpendicular to the floor gently pull your heel towards your buttocks until you feel a stretch in your right quadriceps
- move your hip slowly until you have reached the furthest comfortable position. Hold this stretch for at least 20-30 seconds.
- repeat stretching the other leg.

## Calf stretch

Muscles stretched : **calves**

- put the sole of your right foot against the wall. Slide your right heel as close towards the wall as possible
- slowly lean forward towards the wall stretching your calves
- once you have stretched your calf to the furthest comfortable position, hold for at least 20-30 seconds
- switch leg and repeat

## **Anterior tibialis stretch**

muscles stretched :**anterior tibialis**

- using a wall as support place your left foot behind your right foot with the top of your left foot on the ground
- extend your left leg with the back as far forwards as possible
- slowly lower yourself by bending both legs
- once you have stretched your anterior tibialis to the furthest comfortable position hold for at least 20-30 seconds
- switch leg and repeat

