

# **FLEXIBILITY**

**Flexibility** is probably the most neglected component of a fitness program. As we age, our tissues lose elasticity and we lose flexibility. A regular stretching program improves range of motion and decreases resistance in muscles and tendons. Below is a summary of 3 different methods of stretching.

## **STATIC STRETCHING**

Static stretching is the simplest method of stretching. I recommend this type of stretch **AFTER** your workout has been completed. It can be done immediately after or several hours later. The key to static stretching is what I call the **BREATHING STRETCH**. It is as simple as this:

1. Place your body part into a position of gentle stretch.
2. Take a deep breath in.
  1. Exhale and increase the stretch position ever so slightly. Just take what your body will give you. **THIS SHOULD BE COMFORTABLE, NOT PAINFUL! DO NOT HOLD YOUR BREATH! DO NOT BOUNCE!**
  3. Repeat this process until you can no longer increase your range of motion. It may be two cycles or 10 cycles, again, just take what your body gives you.

Once you get your breathing in synch with the stretching you will be amazed at how effective it is.

## **ACTIVE ISOLATED STRETCHING (AIS)**

AI is a unique, active way to stretch muscles developed by Aaron Mattes ([www.stretchingusa.com](http://www.stretchingusa.com)). It uses an active contraction of the muscle **OPPOSITE** to the one being stretched. For example, if you lie on your back and raise one leg as high as you can, eventually you will feel the stretch in the rear thigh (hamstring), but you are contracting the front thigh and hip muscles (quadriceps and hip flexor muscles) to raise the thigh. It is this contraction of the opposing muscle group that allows a greater stretch in the muscle being stretched. It would be very helpful to get an anatomy book and learn the different muscles and their function.

Here are the rules for AIS:

1. Determine which muscle you wish to stretch and the opposing muscle you are going to contract. Make a mental picture in your head **BEFORE** you start the stretch.
2. Actively contract the opposing muscle **BEFORE** you start the stretch movement.
3. Maintain the contraction throughout the entire movement.
4. When you reach the end of the movement (as far as you can go **COMFORTABLY**), maintain that position for no more than 2 seconds. Maintain the contraction of the opposing muscle for those 2 seconds.
5. Release the contraction and return to the starting position.

6. Exhale during the stretching phase and inhale during the recovery phase. **DO NOT HOLD YOUR BREATH!**
7. Repeat the process 10 times and with each subsequent stretch attempt to increase the range of motion each time.
8. **STRETCHING SHOULD NOT CAUSE PAIN!**

## **FACILITATED STRETCHING**

Facilitated Stretching is another type of active stretching developed by physicians and therapists over the last 50 years. The method I describe below uses active motion and isometric muscle contraction to improve flexibility. Another name for facilitated stretching is CRAC – contract relax antagonist contract. You will need a strap (Stretch Out Strap) or partner for many of the stretches. Using the same example as in the AIS section, lie on your back with the strap around your foot and actively contract the hip flexor muscles to lift your leg to the point when you feel a stretch in the hamstring. Do not just pull your leg up with the strap. At this point, keep your leg in this position and push your heel into the strap toward the floor for 5-10 seconds. Now you are contracting the **SAME** muscle you are stretching. Then, release the contraction and **ACTIVELY** raise your leg higher; use your hip flexor muscles, not the strap. This will be repeated several times.

Here are the rules for Facilitated Stretching:

2. Determine which muscle you wish to stretch. Make a mental picture in your head **BEFORE** you start the stretch.
3. Actively contract the opposing muscle to move your limb or body to the point when you feel a **MILD** stretch.
4. Contract the muscle you are stretching into the strap or your partner and hold for 5 – 10 seconds.
5. Release the contraction and use the opposing muscles to move your limb or body to the point when you feel the stretch again.
6. Inhale during the contraction phase (when you are contracting the muscle being stretched) and exhale during the lengthening phase (when you are contracting the opposing muscle group). **DO NOT HOLD YOUR BREATH!**
7. Repeat this process until you can no longer increase your range of motion. It may be two cycles or 10 cycles, just take what your body gives you.
8. **STRETCHING SHOULD NOT CAUSE PAIN!**

## NECK AND UPPER BODY STRETCHES

### Neck: Upper Trapezius Stretch

Stand up straight and draw the belly button inwards. Place left arm behind your back. Tilt your head to the right and slowly draw the right ear to the right shoulder. The stretch is felt on the left side.



### Neck: Levator Scapulae Stretch

Stand up straight and draw the belly button inwards. Place left arm behind your back. Tuck the chin and slowly draw the right ear to the right shoulder. Rotate the head so you are looking into your right armpit. Use right arm to gently pull head forward and to the right. The stretch is felt on the left side.



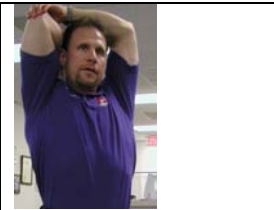
### Rear Shoulder

Stand up straight and draw the belly button inward. Bring one arm across the chest with the palm facing toward your body. Use the other arm to apply pressure to area just above the elbow and gently pull the arm across your chest until you feel the stretch in the rear shoulder.



### Triceps and Side Torso

Stand up straight and draw the belly button inwards. Place one hand behind your head trying to keep the elbow pointing straight up and reach to the back of the neck. Use the other arm to pull the tip of the elbow backward until you feel the stretch in your triceps and along that side of your body.



### Specific Upper Body

Stand up straight in a doorway and draw the belly button inwards. Reach straight up with one arm to the top of the doorframe. With the other arm reach across your body and grasp the doorframe. This will stretch the side (Latissimus dorsi) where the arm reaches up and the rear shoulder of the arm reaching across.



**Wrist Stretch 1**

Start with your elbow at your side and bent at 90°. Your palm faces away from you. Grasp your fingers just below the knuckles and pull your fingers back toward you as you extend your arm forward.

**Wrist Stretch 2**

Start with your elbow at your side and bent at 90°. Your palm faces toward you. Grasp your hand just above the knuckles and pull your hand back toward you as you extend your arm forward.



## TORSO AND LOWER BODY STRETCHES

### Wall Torso Twist

Start in the address position with your back a few inches away from a wall or door. Without moving your head or feet, turn your upper body slowly attempting to reach the point where one or both of your hands touch the wall. Turn as far as you can comfortably without straining. Repeat in the opposite direction.



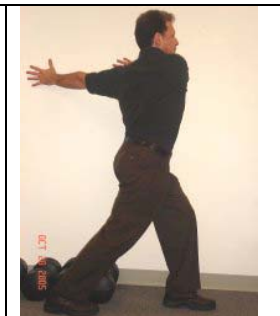
### Torso/Hip Rotation Stretch

Hold a club across your chest and gently suck in your belly. Keeping your pelvis still, rotate your torso to the right as far as you can. Keep your head still. Then, rotate as far as you can to the left and hold.



### Hip Rotation/ Shoulder Stretch

Stand next to a wall with your shoulders perpendicular to it. Step forward with the right leg, knee bent. Keeping most of your weight on the right leg, place your hands on the wall and turn your shoulders to the right, sliding your hands back as far as you can.



### Hip Rotation/ Chest Stretch

Lay on your back. Bring the right leg across your body, keeping the knee straight. You will feel a stretch in your right hamstring. Reach over your head and out to the side with your right arm. You will feel a stretch in your chest (pecs). Switch sides.



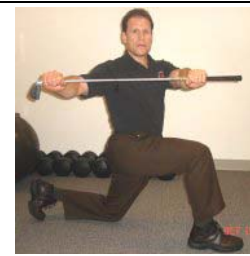
### Hip Flexor Stretch

Stand with one leg forward (slightly bent at the knee) and one leg back (with the foot turned in). Draw the belly button inward and tilt your body toward the front leg side. Reach up and to the front leg side with the opposite arm until you feel the stretch on the rear leg side. A variation is to place a club behind your back that will keep your spine straight. You should not feel this in your lower back.



### Lunge and Twist

Begin in a stride position, and lower to a lunge position as you twist your torso toward the forward leg, keeping the shinbone of the forward leg perpendicular to the ground. Hold for one second.



### Piriformis (Buttocks)

Lie on your back and with feet flat on floor. Bend hip and knee of one leg to a 90-90 position. Cross this bent leg across the other knee in a figure 4 position. Draw the belly button inward and pull the thigh toward your abdomen until you feel the stretch in the buttocks.



### Quadriceps (Front Thigh)

Stand with one arm on the wall for support. Bend opposite knee and grasp the ankle (not the foot) with your hand. Draw your belly button inward and gently pull your thigh backwards until you feel the stretch in the quadriceps. Do not allow your thigh to move to the side and do not pull the heel to the buttock (this can be painful at the knee).



### **Hamstring (Rear Thigh) Stretch #1**

Lie down on floor with legs flat. Flex hip and knee of one leg (90-90 position). Support the bent leg with the hands in the crease of the knee and draw belly button inward. Slowly straighten the leg until a tension is felt in the hamstring.



### **Hamstring (Rear Thigh) Stretch #2**

Start in a standing position with one foot in front of the other pointing straight ahead. Slowly squat into a sprinter's start stance. Draw the belly inward and slowly raise the buttocks up until a stretch is felt in the forward leg in the hamstring.



### **Calf Stretch**

Place one leg forward and one leg back keeping both heels on the ground. The rear leg should be straight and the front leg should be bent at the knee. Place hands on wall at shoulder level and keep back straight by drawing belly button inward. Bend arms and move chest and hips toward the wall without arching your back. Stop movement when slight tension is felt in the rear calf.



### **Suggested Reading**

#### **Static Stretching**

*Sport Stretch*, Michael Alter, Human Kinetics

#### **Active Isolated Stretching**

*Specific Stretching For Everyone*, Aaron Mattes [www.stretchingusa.com](http://www.stretchingusa.com)

*The Whartons' Stretch Book*, Jim and Phil Wharton, Three Rivers Press