

# Increasing Physical Activity as We Age

## Stretching

LaVona Traywick, Ph.D.  
Assistant Professor -  
Gerontology

Katie Cobb, B.S.  
County Extension Agent -  
Family and Consumer  
Sciences

### Introduction

Stretching is a form of exercise in which a specific skeletal muscle or muscle group is deliberately elongated (stretched) to its fullest length in order to improve the muscle's elasticity and restore comfortable muscle tone. Most endurance and strength exercises, along with some balance exercises, naturally cause muscles to contract and flex—which is why regular stretching should be part of any exercise program. Stretching results in increased muscle control, range of motion and flexibility.

Flexibility is an important part of physical fitness. Some types of physical activity require more flexibility than others. For example, it takes more flexibility for dancing than jogging. However, improved flexibility will help with everyday activities such as bending over to tie your shoes or reaching up to get a book off a high bookshelf.

### Why Is Stretching Important?

So why stretch? Stretching can be helpful in many ways. It can help prevent injuries, reduce muscle tightness and tension, help you feel more relaxed, help



coordination, increase your range of motion and help maintain your level of flexibility so that you do not become stiff. After exercise, stretching can help prevent muscle soreness and stiffness. And, it feels good if done correctly!

- **Stretching increases flexibility.** Flexible muscles can improve your performance in daily activities so that tasks such as lifting packages, getting dressed or hurrying to catch a bus become easier and less tiring.
- **Stretching improves range of motion.** Good range of motion in your joints keeps you in better balance, which will help you stay mobile and less likely to fall.
- **Stretching improves circulation.** Stretching increases blood flow to your muscles. Improved circulation can speed recovery after muscle injuries.
- **Stretching relieves stress.** Stretching relaxes the tense muscles that often accompany stress.

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## Right Vs. Wrong Way to Stretch

The right way to stretch is relaxed, holding the stretch with your attention on the muscles being stretched. You should feel a stretch but not pain. The wrong way is to bounce up and down or to stretch to the point of pain. Stretching the wrong way can be harmful. Your muscles, if pushed too far, will contract, or tighten. This means that you are trying to stretch but your muscles are reacting by tightening. Stretching too far or bouncing can cause pain, as well as damage to the muscles. It is possible to hurt yourself stretching if you are in a hurry and not relaxed, you push too far too soon or if you are not paying attention to your body. After endurance exercise, cool down first and get your heart rate close to normal before stretching.

Stretching Tips
Warm Up First
Target Major Muscle Groups
Pace Yourself
Do Not Bounce
Focus on a Pain-Free Stretch
Relax and Breathe Freely

### Warm Up First

Should you stretch before you warm up or warm up before you stretch? Warm up! Before you begin stretching, be sure your muscles are warm. A warm-up actually increases the body temperature of the muscles, hence the term “warm.” A pre-exercise warm-up prepares your muscles by increasing the movement of blood through your tissues, making the muscles more limber. A warmed muscle both contracts more forcefully and relaxes more quickly. Any stretching is best performed after your muscles are warm, so only stretch after your warm-up or completion of another exercise routine.

Stretching muscles when they are cold may lead to a tear.

Several minutes of general movement (walking, swinging arms or arm circles) is recommended to warm up muscles and get blood moving. One of the best ways to warm up is to perform the exercise at a slow pace. In general, a warm-up should take about 5 to 10 minutes and result in a light sweat and increased heart rate; however, both the intensity (how hard) and duration (how long) will depend on the fitness level of the person.

### Summary

Stretching can be done by anyone regardless of age, flexibility or athletic ability level. Whether you sit in an office all day, drive a truck, do housework or deliver mail on foot, you can do some simple stretches. You can stretch any time you like: at home, at work, in the car, after exercise. Think like a cat and stretch after sleeping. Stretch at work to relieve tension, and move around a bit. Stretching is especially helpful if you have been sitting or standing for a long time or when you feel stiff. You can stretch during the day while watching television, listening to music or just sitting and talking. Stretching is also beneficial after exercising.

If you have a chronic condition or an injury, you may need to modify your stretching. For example, if you have had shoulder surgery, you may not want to lift your arm over your head for a little while. Discuss with your doctor or physical therapist the best way to stretch.



## Sample Stretches

It is recommended to do two to five repetitions of each stretch while holding the stretch for 20 to 30 seconds.

Slowly move into the desired position for the stretch. Do not bounce or jerk. There are many levels of flexibility. You may not be able to hold the stretch for the full count or in the full extension when first beginning. Relax. Take a deep breath. Repeat the stretch trying to stretch further and hold longer.



Figure 1. Starting position, front.



Figure 2. Starting position, side.

**Upper Back Stretch** (Stretches the upper back through the shoulder area)

1. Stand (or sit) with feet shoulder-width apart, arms at side. *See Figures 1 and 2: Starting position, front and side.*
2. Raise arms in front. Clasp hands together and rotate hands so that palms face out.
3. Slightly round the shoulders. Press palms away from body, stretching the upper back and shoulders. *See Figures 3 and 4: Upper back stretch (front view and side view).*



Figure 3. Upper back stretch, front view.



Figure 4. Upper back stretch, side view.

**Chest Stretch** (Stretches the chest with slight stretch in the arms)

1. Stand with arms down by side and feet shoulder-width apart. *See Figures 1 and 2.*
2. Extend both arms behind and clasp hands together with arms straight.
3. Keeping shoulders back and down, slowly lift arms up behind until a stretch is felt. *See Figures 5 and 6: Chest and arm stretch (front view and side view).*



Figure 5. Chest and arm stretch, front view.



Figure 6. Chest and arm stretch, side view.

**Triceps Stretch** (Stretches the upper arm with slight stretch for shoulder)

1. Stand (or sit) with feet shoulder-width apart, arms at side. *See Figure 7: Triceps stretch starting position.*
2. Raise one arm overhead. Bend arm at the elbow. Reach hand back to touch the shoulder blade of the same arm.
3. Bend and reach opposite arm up behind back with palm facing out to clasp other hand. *See Figure 8: Triceps stretch.*
4. Repeat on the opposite side.

Note: Fingertips do not have to touch. One side may stretch farther than the other side. Use a towel to help stretch if needed—hold one end of the towel in one hand. Drape the towel down your back. Reach behind lower back to grasp the towel with other hand.



Figure 7. Triceps stretch starting position.



Figure 8. Triceps stretch.

**Cross Shoulder Stretch** (Stretches the shoulder with a slight stretch for the triceps)

1. Sit (or stand) in a sturdy chair making sure the back is straight and feet are firmly placed on the ground. *See Figure 9: Cross shoulder stretch starting position.*
2. Keeping shoulders straight, bend the right arm at the elbow and reach across your chest.
3. Place left hand on the right elbow to gently support and ease the right arm closer to your chest. *See Figure 10: Cross shoulder stretch.*
4. Repeat on the opposite side.



Figure 9. Cross shoulder stretch starting position.



Figure 10. Cross shoulder stretch.

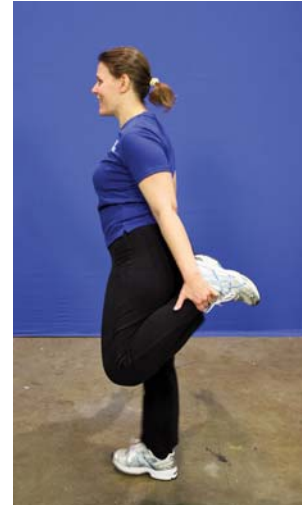
### **Quadriceps Stretch** (Stretches the thigh muscle)

1. Stand with feet shoulder-width apart and knees straight but not locked. Stand behind a sturdy chair to hold on to for balance if needed. *See Figure 11 for quadriceps stretch starting position.*
2. Bend the left leg back. Grab foot with left hand, being sure to keep knee pointed toward the floor.
3. Gently pull leg until a stretch is felt in thigh. *See Figure 12: Quadriceps stretch.*
4. Repeat with the right leg.

Note: Use a towel if you cannot reach your ankle. Loop the towel around foot and hold both ends of the towel. Gently pull the towel up until a stretch is felt in the thigh.



**Figure 11. Quadriceps stretch starting position.**



**Figure 12. Quadriceps stretch.**

### **Hamstring Stretch** (Stretches the back of the leg)

1. Stand, facing the front of a sturdy chair, with feet shoulder-width apart and toes pointing toward the chair. *See Figure 13: Hamstring stretch starting position.*
2. Keeping back straight, lift one leg up and place the heel of foot on the seat of the chair, toes flexed. Be sure the other foot is flat on the floor, directly below you. *See Figure 14: Hamstring stretch.*
3. If a stretch is felt in this position, hold it. If not, use a taller chair OR lean forward from the hips (not waist) until a stretch is felt. Repeat with the other leg.



**Figure 13. Hamstring stretch starting position.**



**Figure 14. Hamstring stretch.**

**Calf Stretch** (Stretches the calf muscle, the muscle on the back of the leg between the knee and ankle)

1. Stand behind a chair, slightly farther than arm's length away with feet shoulder-width apart. See *Figure 15: Calf stretch starting position*.
2. Place hands on the chair for balance.
3. Step forward with one leg bending the knee. Keep the opposite leg straight. Be sure both feet are flat on the floor and toes are facing forward. See *Figure 16: Calf stretch*.
4. For a deeper stretch, keeping the front knee at a 90-degree angle, move the foot on the opposite leg slowly back until a stretch is felt.

Repeat with the other leg.



**Figure 15. Calf stretch starting position.**



**Figure 16. Calf stretch.**

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**LAVONA TRAYWICK**, Ph.D., is assistant professor - gerontology with the University of Arkansas Division of Agriculture in Little Rock and **KATIE COBB**, B.S., is county Extension agent - family and consumer sciences for White County in Searcy.

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