

by Annette M. Musta

# The Importance of Being Flexible

*Flexibility is the third major component in a balanced fitness program. Good flexibility protects joints from injury, increases the efficiency and performance of the joints and muscles, enhances athletic performance, and improves muscle balance. In addition, flexibility exercises reduce stress levels and enhance the overall enjoyment of physical activity. Yet many individuals and athletes completely ignore the flexibility component of their fitness program.*

A flexible joint has a complete *Range of Motion* (ROM). ROM is defined as the ability of a joint to move freely in every direction. Joint mobility is limited by the joint structure, the elasticity and strength of the surrounding muscles, and the connective tissue of the joint. Flexibility training minimizes these limitations. Like other aspects of physical conditioning, ROM can be improved with a complete flexibility training program.

There are two basic types of flexibility – static flexibility and dynamic flexibility. *Static flexibility* is the ROM around a joint. An example of static flexibility is an individual performing a split (see photo). There is little or no emphasis on speed of movement in static flexibility. *Dynamic or active flexibility* encompasses speed of movement and the strength, power, tissue resistance, and neuromuscular coordination of the joint and surrounding muscle. A dancer performing a leap requires not only the static flexibility of the split but also the strength and coordination to perform the dynamic movement. A complete flexibility program employs different exercises to enhance both static and dynamic flexibility.



## Head-to-Toe Stretches

The following stretches involve slow and controlled movement through the full range of motion of each joint. Slow stretching results in long-term elongation of the muscle tissue and minimizes the risk of injury.

**Warm-up First** Before performing any stretching activity, it is imperative to warm-up your muscles first. Your warm-

up should consist of any slow rhythmic exercise employing the major muscle groups. Marching in place while pumping the arms, fast walking, light jogging, and rhythmic dancing are all examples of warm-up movement. A minimum of ten minutes of warm-up exercises must be performed prior to starting the full body stretching program below. Warming up increases the blood flow to the muscles making them pliable and more receptive to stretching. An inadequate warm-up increases the risk of injury and painful muscles.

**Use Proper Technique** All of these stretches can be performed after a proper warm-up. All movement should be slow and controlled. Exhale as you perform each stretch and hold the stretch for 15-20 seconds. Only stretch as far as you can *comfortably*. Never force a stretch. Do not bounce. A properly performed stretch should not cause pain. If you feel pain, stop immediately. Warm joints and muscles will stretch more readily.

Whole body stretching should be performed daily. Always stretch each body part you have used during an exercise session. Use the “rest” time between weightlifting sets to stretch the body part used. Remember to stretch between ends when shooting. Studies have shown stretching in conjunction with muscle toning exercise will increase the benefits of the exercise. In other words, if you stretch while you lift weights you will achieve better results.

## The Stretches

**Hip Flexor** Start this stretch by kneeling on one knee with the other knee bent, the foot flat out in front. Gently lean forward into the extended knee, stretching the hip flexors. Hold the stretch before changing sides. You should feel this stretch in your hip muscles and lower back. (see photo)



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### **Seated Hip and Leg Stretch**

Sit on the floor with both legs stretched out in front. Bend the right leg at the knee placing the bottom of the foot against the left leg (see photo). Extend your arms and bend forward at the waist reaching toward your extended leg. Hold the stretch before switching sides. You should feel this stretch in your leg and hip and lower back.

**Standing Leg Stretch** Stand with your feet hip width apart. Keep your knees "soft" (slightly bent). Reach up over your head with your hands. As you breathe out, slowly and gently bend forward at the waist, reaching for your toes (see photo). Hold the stretch for a count of ten before slowly rolling your spine, vertebrae by vertebrae, back up to standing position. You should feel this stretch in the back of your legs and lower back. *If you have a back injury, avoid this stretch.*



**Lying Hamstring Stretch** Lay down on your back with your knees bent, feet flat on the floor. Straighten the right leg and lift it perpendicular to your body. Grasp your right leg and pull it gently toward your body (see photo). Hold for a count of ten and release. Switch sides. Repeat three times per side.



**Quadriceps Stretch.** Stand on your left leg, bend your right leg behind you at the knee and grasp your foot with your right hand (hold on to a chair for stabilization). Hold this position for a count of ten. You should feel the stretch in the front of your bent leg. Repeat on the left side.

**Calf Stretch** Stand with your feet together. Step your right foot out in front of you, bend your knee slightly and push the heel of your back foot into the ground. Feel the stretch in the calf muscles of your back leg. Hold for a count of ten. Repeat on the other side.

**Butterfly Stretch** Sit comfortably on the floor with your knees bent, the bottom of your feet pressed together. Gently press your knees down toward the floor. Gently push your knees with your hands or elbows if you need more of a stretch (see



photo). Hold before releasing. You should feel this stretch in your inner thighs and hips..

**Back Stretch** Stand with your feet hip width apart. Reach your right arm over your head. Gently bend to the left side holding the stretch for a count of ten. Change the stretch by reaching to the side and forward (approximately to an 11 o'clock position) and hold. Repeat on the right side, reaching with your left arm for the side stretch. Reach towards the one o'clock position for the forward stretch. You should feel this stretch in your lower back.

**Seated Back Stretch** Sit on a mat with your right leg curled around your body and your left leg folded over it. Gently twist your body to the right stretching your back (see photo). Hold for a count of ten and release. Gently twist your body to the left, hold, and release. Switch legs and repeat on the other side.



**Shoulder Stretch** Cross your right arm over the front of your body and grasp your right arm with your left hand at the elbow. Gently push your right arm towards your body, stretching the shoulder muscles of your right arm. Hold for ten, repeat on the left side. Perform this stretch at least twice on each side.

**Upper Back Stretch** Clasp your hands in front of your body, palms facing away from you. Push your hands forward feeling the stretch in your upper back and shoulders. Hold for a count of ten. Clasp your hands behind your back, palms facing towards you. Push your hands away from you, gently stretching your upper back. Hold for a count of ten. Repeat both stretches three times.

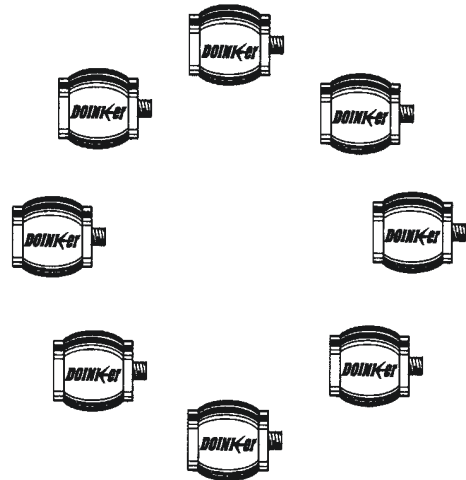
**Inverted "V" Stretch** Lie on your stomach on an exercise mat with your hands stretched out in front of you. Push yourself up into an inverted "V" (see photo). (You can also enter this position by bending forward from a standing position to form an inverted "V".) Hold this position for a full minute, stretching your back and legs. Relax into the stretch, concentrating on your breathing. Release and repeat.



Annette Musta is a certified personal trainer who owns and operates her own business, ARH Sports and Fitness in Pennsylvania. She has been shooting for 24 years, but not seriously (she says) until the last five years. She has been a professional ballet dancer (which is why she is known around the ARCO Training Center as "the dancer") and is currently a licensed pilot. She is the founder and Executive Director of the Pass the Torch Foundation, which matches school age children with athletes training for international competition.

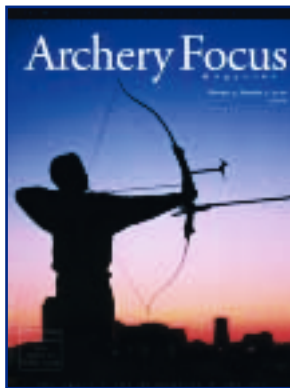


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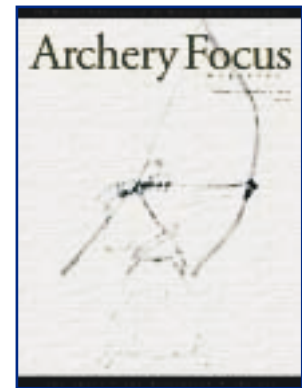


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