

PROPER WARM-UP TECHNIQUES

Stretching is not warming up! It is, however, a very important part of warming up. A proper warm-up should raise your body temperature by one or two degrees and is divided into three phases:

1. **General Warm-Up** - The general warm-up is divided into two parts and should be performed in this order:

➤ **Joint Rotations**

Starting either from your toes and working your way up, or from your fingers and working your way down, flex and extend and/or perform slow circular movements, both clockwise and counter-clockwise, until the joint seems to move smoothly.

1. Fingers and knuckles
2. Wrists
3. Elbows
4. Shoulders
5. Neck
6. Trunk/waist
7. Hips
8. Legs
9. Knees
10. Ankles
11. Toes

➤ **Aerobic Activity**

After you have performed the joint rotations, you should engage in some form of aerobic activity such as jogging, jumping rope, or any other activity that will get your blood pumping enough that you begin to break a sweat.

2. **Warm-Up Stretching** – The stretching phase of your warm-up should consist of two parts:

➤ **Static Warm-Up Stretching**

Immediately following your general warm-up, you should engage in some slow, relaxed, static stretching starting with your back, followed by your upper body and lower body, stretching your muscles in the following order:

1. Back
2. Sides (external oblique)
3. Neck
4. Forearms and wrists
5. Triceps
6. Chest
7. Buttocks
8. Groin (adductors)
9. Thighs (quadriceps and abductors)
10. Calves
11. Shins
12. Hamstrings
13. Instep

➤ **Dynamic Warm-Up Stretching**

Once you have performed your static stretches, you should engage in some light movements that mimic the type movements you will use in your workout. For example, if you're going to be jumping/tumbling, do some kicks, squat jumps, rebounds and arm-swings in all directions. Do as many sets as it takes to reach your maximum range of motion in any given direction but do not work your muscles to the point of fatigue.

It is important that static stretches be performed before any dynamic stretches in your warm-up. Dynamic stretching can often result in overstretching, which damages the muscles. Performing static stretches first will help reduce this risk of injury.

3. **Sport-Specific Activity**

The last part of your warm-up should be devoted to performing movements that are a "watered-down" version of the movements that you will be performing during your athletic activity.

HOW TO INCREASE FLEXIBILITY

This basic stretching technique takes advantage of the neuromuscular inhibition that occurs following a muscular contraction. The first step involves passively lengthening the muscle to be stretched to its end of range. At its point of full length, the person then gently contracts this muscle against resistance (usually another person), which limits movement. This isometric contraction is continued at about 50 percent of maximal effort for at least six seconds (which allows autogenic inhibition to occur). When the muscle to be stretched is relaxed after its six-second contraction, the opposite or antagonist muscle is contracted for at least six seconds (allowing reciprocal inhibition to occur). The muscle is then relaxed, taken to a new range and held for about 20 seconds. This can be repeated three to four times.

In plain English, here's what you do:

1. Slowly stretch muscle until point of discomfort.
2. Hold 10 seconds.
3. Push against resistance for 6 seconds.
4. Contract opposing muscle for 6 seconds.
5. Slowly stretch muscle until next point of discomfort.
6. Hold 20 seconds.
7. Repeat steps 3-5 three to four more times.

