



## **DON'T STRETCH IT TOO FAR: Warm up and cool down to prevent exercise injuries**

Many of us think of stretching in the same way we think about the trailers shown before movies: If we get there in time, great, if not, no big deal. The difference is, if we skip the stretching before and after working out, we could be headed for serious injury. And if done incorrectly, stretching itself could be cause for alarm.

Taking the time to stretch will do your body good. The benefits of this exercise appetizer are many: reduced muscle tension, stress reduction, improved posture and coordination, reduced stiffness, and delay of muscle degeneration.

### **OUTDATED TECHNIQUES CAN HARM**

Many of us remember stretching in gym class as children but the techniques we once learned may be causing us harm today. We tend to follow the patterns we're taught; however, this is one case where relearning may be important. "As you go into high schools, many [physical education] teachers are still teaching the way they were taught. Research has come out now to show that those methods are contraindicated," said Fabio Comana, certified exam development manager with the American Council of Exercise, San Diego.

When stretching forward, avoid hanging with your head and torso in an unsupported position, with gravity pulling down on your back. While this was taught in the past, it may result in the discs and ligaments of the back losing elasticity. To stretch the back, place the palms of your hand on your thighs for support or get on all fours and push your back up into an arch, as in the "cat stretch" yoga pose. Do not do rapid head rolls or roll your head from shoulder to shoulder in the back. This can hyperextend the cervical spine and cause pinched nerves in the cervical region. Always move in and out of stretching positions slowly.

When stretching, remember to breathe slowly and in a relaxed rhythm. Holding your breath may indicate you are pushing yourself too far. Keeping a steady breathing pattern will help your body respond to the stretching and relax. "From a mind and body standpoint, breathing helps you relax and encourages your stretching. There is no real physiological merit to breathing while stretching but there is a great relaxation benefit," Comana said.

### **THE PRICIPLES OF STRETCHING**

Before beginning a stretching routine, map out your fitness goals. Comana suggested the goals of an integrated flexibility program should include correction for muscle imbalances and their associated soreness and tensions; decreased joint dysfunctions; improved functional range of motion; restored muscle-length tension; restored function to muscle action; minimized injury potential; and improved joint blood supply of nutrients.

According to Wayne Westcott, fitness researcher at the South Shore YMCA in Quincy, MA, there are six principles of stretching that every person should adhere to before beginning any type of regimen.

1. Always stretch within your comfort zone. If it hurts, stop. Stretching never should be painful.
2. Relax! When the body is tense, beneficial stretching is nearly impossible. If you are forcing yourself into a stretch, you could be risking injury.



3. Don't stretch a cold muscle. Stretching a cold muscle can do more harm than good as you can tear your muscles as well as put great strain on your joints. Perhaps elevate your body temperature by jogging in place for about five minutes before beginning to stretch.

4. Stretch slowly. Quick movements or bouncing may trigger a reflex that causes the muscle to contract rather than relax. Always move slowly into and out of a stretching position.

5. Take 30. Pause in the stretching position for 10 to 30 seconds. Maintain the stretched position long enough for muscles to make the desired adaptations.

6. Be consistent. Gain optimum benefits by committing to stretching regularly. Plan to perform 10 to 15 minutes of stretching at the end of every exercise session.

### **FITTING IN A STRETCH**

According to the American Council on Exercise, time constraints keep many people from stretching. Some complain they do not have time to stretch; others hurry out of their fitness classes before the cool down is completed. Ideally at least 30 minutes, three times a week, should be spent on flexibility training. ACE offers a few tips on fitting stretching into a tight schedule.

- If you don't have time to sufficiently warm up before stretching, try doing a few stretches immediately after a shower or while soaking in a hot tub. The hot water elevates muscle temperature enough to make them more pliable and receptive to stretching.
- Try a few simple stretches before getting out of bed in the morning. Wake yourself up with a few full-body stretches by pointing the toes and reaching the arms above your head.
- Take a stretching class such as yoga or Tai Chi. Scheduling a class will help you stick to a regular stretching program.

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