



Training Tip

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The following article is based on the video: **Flexibility, Reflexes, Coordination** by Sang H. Kim. The above article is copyrighted by the author. All rights reserved. Special thanks to [Turtle Press](#) for the use of this article.

Stretch every time you exercise. The only way to improve your flexibility is through consistent stretching exercises. Every muscle is subject to the myotatic reflex (stretch reflex) which opposes changes in muscle length, especially sudden or extreme changes. When a muscle lengthens beyond a certain point, the myotatic reflex causes it to tighten and attempt to shorten. This is the tension you feel during stretching exercises.

The myotatic reflex is desirable because it prevents, in many cases, muscle strains and tears. Without it your muscles would be allowed to overextend and tear easily. But it is also undesirable in cases where it prevents you from fully using your body.

Through stretching, deconditioning of the myotatic reflex takes place. Little by little, you teach your muscles a new limit of safe extension. This is why stretching must be slow and consistent. If you overstretch and injure the muscle, you have to go back to a lower level of flexibility and start over. Set your stretching goals over a period of weeks or months, not days, for best results.

There are three types of stretching: static, dynamic and ballistic. Ballistic stretching means bobbing, bouncing or using some type of moving pressure to stretch the target muscles. Ballistic stretching is not recommended because it activates the myotatic reflex and causes the muscles to tense, rather than relax. Ballistic stretching has a high risk of injury.

Dynamic stretching means moving the muscle through its full range of movement. Dynamic stretching leads to greater flexibility in movement but should be done with caution so it does not become ballistic stretching. To maintain a correct dynamic stretch, focus on smooth, even movements that do not shock the muscle. Examples of dynamic stretches are knee raises, leg raises, arm circles, and trunk circles. Static stretching is a controlled stretch. A specific muscle or muscle group is extended to the point of feeling slight pain and held in that position for ten to sixty seconds. During static stretching, concentrate on relaxing the target muscles and breathing deeply. Begin your flexibility workout with several minutes of gross motor activity to increase your blood flow. Increased blood flow improves the suppleness of the muscles. Then move to joint loosening exercises followed by dynamic stretches to get the muscles moving freely. If you are working only on flexibility, do static stretches next. If you are training, interspersing periods of static stretching throughout the workout works best because

the range of motion increases as the body warms up. Do some light static stretches at the end of every workout to relax and refresh your muscles.

CAUTIONS

- Do not overstretch. A mild sensation of burning or pulling should be felt in the target muscles. It should be uncomfortable but not unbearable. Avoid bouncing during a stretch. Bouncing causes the muscles to tighten and heightens the risk of injury.
- Follow instructions for exercises carefully. There is right and wrong way to stretch every muscle. Good flexibility exercises are designed to provide a maximum stretch with a minimum risk of injury.
- Do gravity assisted stretches with caution and only after fully warming up. Gravity assisted stretches are exercises like splits that use the force of gravity to increase the pressure on the stretch.
- You should never feel pain in your joints during stretching exercises. If you do, stop immediately and discontinue that exercise.
- When doing flexibility exercises that require bending at the waist, always bend from the hip, not the lower back.
- The lower back is extremely vulnerable to injuries.
- Always increase strength and flexibility together.