

# the **CrossFit** JOURNAL ARTICLES

## Stretching and Flexibility

Roger Harrell

Gaining flexibility is primarily about discipline. It requires neither great pain nor specialized knowledge of particular tricks. The primary key to gaining flexibility is simply to stretch often. If you do not stretch, or do so only sporadically, your gains in flexibility will be limited. To improve your flexibility, you should stretch at least once a day, and, if possible, multiple times per day. Short, repeated exposure to stretching is more productive than a single intense or long bout of stretching. For example, it is far better to stretch ten minutes per day, every day, than to stretch 70 minutes once a week. Stretching is also a long-term commitment and must be continued indefinitely to maintain and/or increase flexibility.

Flexibility is not something that automatically comes with strength training. On the contrary, strength training without stretching can lead to dramatic reduction in flexibility. In many cases, when taken to the extreme, such a lack of flexibility will result in loss of “normal” function, not to mention loss of high-performance function so important to athletes.

Making significant increases in flexibility will bring marked improvement in performance. Larger ranges of motion (ROM) will allow for longer periods of applied force, improvement in technique, increases in biomechanical advantages, and reduction in joint strain.

### When to stretch

While stretching should be done as often as possible, and any time is better than

no time, when you stretch matters. Most resistance to ROM is a result of muscles contracting to prevent injury, so the more this resistance can be overcome, the more effective stretching sessions will be.

Some light stretching and an active warm-up should be undertaken before working out to prepare for activity, but stretching immediately following a workout will have significantly greater impact on flexibility. After a workout, muscles are warm and fatigued. This state allows for greater ROM, which helps ensure that muscles are actually being stretched in a relaxed state rather than fighting against contracted muscle fibers.

The time of day for stretching is less important than its timing relative to a workout, but it does have an impact.



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## Stretching and Flexibility (continued...)

Because stretching is most effective when relaxed ROM is maximized, stretching later in the day will have a greater effect on flexibility.

As with other components to a fitness program, the timing of your stretching should be varied.

The above recommendations are guidelines; a stretching program should not become too routine. From time to time, stretch before working out and/or early in the morning. And do it as often as possible. If five minutes are available early in the morning to stretch, take advantage of them.

Whenever possible, find ways to stretch while doing other things. Sitting in a straddled pike on the floor while doing paperwork is an excellent example of this. (Moreover, once flexibility is sufficient, a straddled pike is one of the most comfortable positions in which to sit on the floor.)

### How to stretch

One of the keys to rapidly gaining flexibility is learning how to relax when stretching. Antagonist muscles should be as relaxed as possible when stretching them. Otherwise, contracted muscle fibers are providing significant reduction in ROM, and the muscle itself is not being effectively stretched. For example, when doing a pike stretch, the hamstrings, glutes, and lower back should be as relaxed as possible.

The primary method for relaxing a muscle while stretching is simply to practice doing it. Focusing on relaxing and keeping breathing regular while you stretch has a dramatic impact on the effectiveness of your stretching sessions. In addition, “shaking out” muscles between stretches aids with relaxation and helps release contracted fibers. After holding a pike for 15 seconds, come out of the pike, shake out both legs, and then return to the pike stretch.

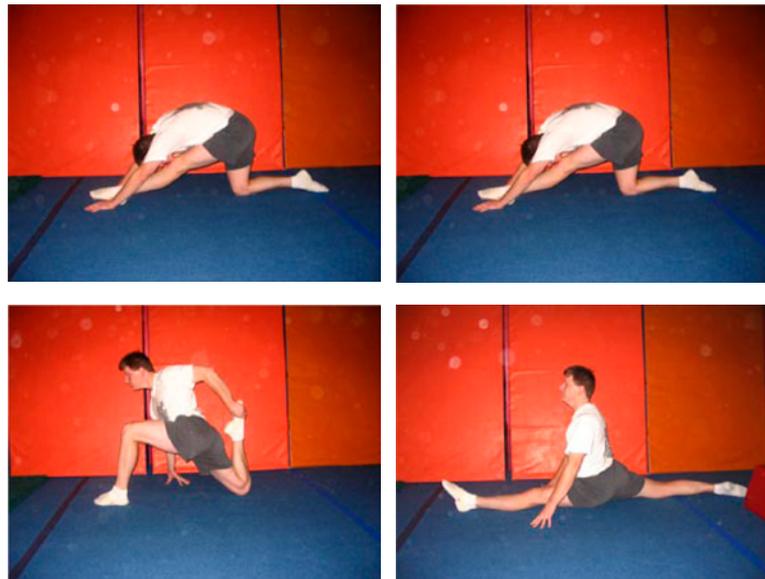
Actively contracting and relaxing antagonist muscles will also help ensure that muscles are stretched in a relaxed state. For a pike stretch, reach forward, hold for five seconds, then actively contract your hamstrings for five seconds, then relax again and try to stretch further

into the pike. This cycle can be repeated two or three times followed by holding the final pike for 15 seconds. Actively contracting and relaxing a muscle while in a stretched position aids in relaxing passively contracted fibers and will greatly increase ROM. Note that this method should be undertaken gradually. Aggressively jumping into this technique can result in pulled or torn muscles. Start slowly and increase gradually.

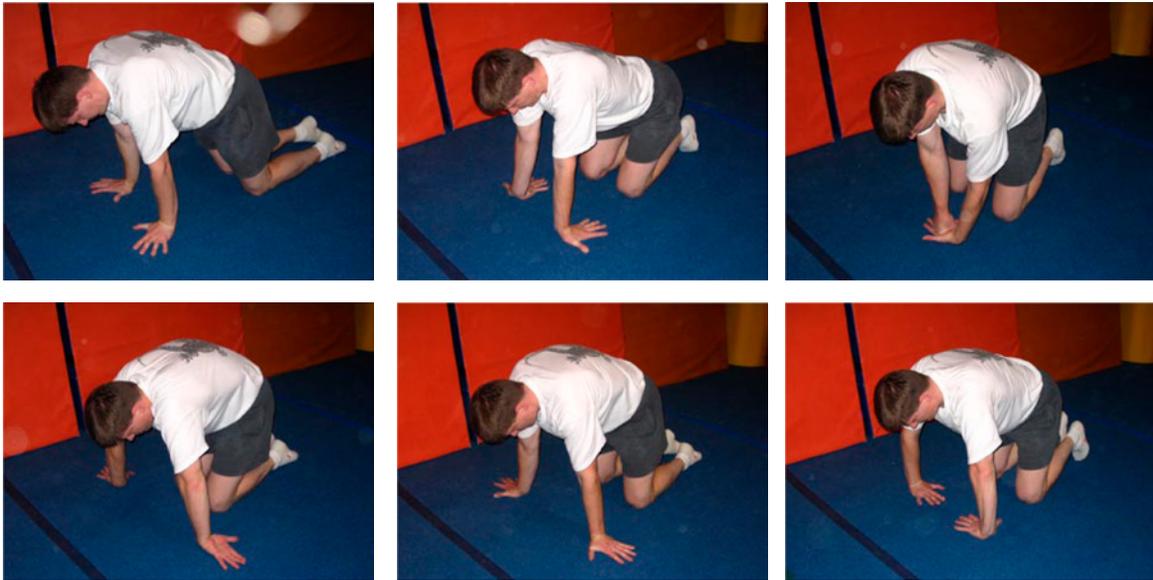
Partner stretching can also help you stretch while relaxed. It is often difficult to relax while placing sufficient load on a muscle to stretch it. A stretching partner can provide the additional load while allowing the individual stretching to fully relax.

A frequent question about stretching is how long any given stretch should be held. The answer is “it depends.” Once you have learned to relax properly while stretching, you will not need to hold positions as long to reach a fully extended state. Generally anywhere from 10 to 60 seconds will be sufficient. It is often better to stretch a given muscle for a shorter time initially and then return to that stretch later in the session.

Variety is also an important factor. Try not to get too routine about how you stretch. Vary which stretches you do and the order in which you do them. It is easy to fall into a repetitive pattern when stretching, but this will reduce the effectiveness of your stretching program.



## Stretching and Flexibility (continued...)



### What to stretch

Stretching should be performed so that muscles, not connective tissue, are stretched. Stretches that push joints outside of normal function should not be performed—for example, any stretch that stretches the knee side to side. Stretching connective tissue or stretching joints in an abnormal fashion can destabilize joints and lead to severe injury.

Focus on stretching muscle tissue to maximize ROM in functional movements. Aim to be flexible enough so that you do not reach a fully stretched point during movements you regularly perform. For example, if you feel resistance in your shoulders or hips when performing an overhead squat, then you are not flexible enough and this resistance is hindering your performance.

Overall, stretching is severely underemphasized in most training programs. There are significant performance benefits to flexibility and severe performance penalties for a lack thereof. Gaining flexibility does not require an enormous time investment, just a commitment to stretch regularly. Resolve to stretch after each and every workout.

For a thorough list of stretches, see <http://www.drillsandskills.com/stretching>.

Roger Harrell is a former competitive gymnast with twenty years of experience in the sport. He has continued to train in the sport well beyond his competitive years. He has run several competitive gymnastics training programs and currently focuses on coaching adults and bringing the benefits of gymnastics to those outside the usual community. He is the developer, designer, and webmaster of [www.DrillsAndSkills.com](http://www.DrillsAndSkills.com).