

# stretching, warming up & cooling down



Article by Chuck Woodward: photos by Ryan Ojerio

## Stretching

So you have spent countless hours perfecting your footwork, increasing your power-endurance, and reinforcing effective body positioning to your muscle memory, but you still want to gain that extra edge. The proper integration of stretching into your climbing workout during warm up and cool down will encourage your body to respond in the most positive way to the increased level of physical activity. In addition, maintaining a regular stretching routine outside of your sessions will improve your overall flexibility, an important part of efficient climbing.

There are two basic types of stretching and you should know when to use each for the greatest benefit.

**Dynamic stretching** involves slow controlled movement that gradually increases in speed and range of motion. Neck rolls, shoulder rolls, side bends, arm circles, squats and high steps are examples of this type of stretching. The focus is on your joints. Never “hold” a position when stretching dynamically.

**Static stretching** involves passively moving your muscles through their range of motion while the body is at rest. During a static stretch, hold for at least 15 seconds, or three full breaths, without bouncing, and repeat each one 3 times. All movement into and out of the stretches should be fluid and controlled to minimize injury potential, and always hydrate prior to stretching.

## Warming Up

The process of warming up causes several physiological changes to occur that help prepare the body for vigorous physical activity. Your body, muscle and blood temperature rise enabling greater flexibility, improved muscle fiber performance, and increased oxygen availability. These changes serve to:

- Aid performance
- Help prevent injury
- Speed the recovery process

Though there are several effective ways to warm up, they all start with stretching. For warming up, it is important to stretch dynamically, especially since static stretching before a workout has been proven to reduce muscle strength and performance. Your focus is on loosening your joints through their full range of motion, because the goal at this stage is to get the muscles and joints ready for action rather than increasing their flexibility.

Once you have completed some light stretching, move on to an exercise with a greater level of exertion. Though jogging, jumping jacks, and many other aerobic activities may serve this purpose, it is highly recommended to do a long easy traverse at this stage. Traversing allows you to target the exact muscles that you will be using during your climbing session.

Keep in mind that if you are getting “pumped” (your arms begin to feel tight and swollen with lactic acid build-up), then you are pushing too hard. Step off the wall, shake both arms out, and take a rest. Get a drink of water to hydrate your muscles. You can also aid the recovery process by lightly massaging your arms across the muscle fibers and towards the heart. Pay attention to your body and be careful not to “flash pump” before you even get started. Flash pumping occurs from inadequately warming up before you launch into strenuous routes. Your body will not recover from becoming this pumped and that means that you are finished for the day.

The duration of your initial warm up depends on many factors, including the temperature, the humidity, and even how you feel (i.e. did you just roll out of bed?). As your ability level increases, you will find that it takes longer to get warmed up adequately for your peak level of performance.

## Cooling Down

Cooling down is equally as important as warming up. The physiological processes that occur during cooling down speed recovery by flushing out toxins and keeping blood from pooling in your muscles. Eliminating these toxins and excess blood that have built up during your session can help to avoid muscle soreness and stiffness.

Cool down by climbing a few routes or problems well below your peak ability level. After drinking some water, finish up with some static stretching.

Start out with general stretches encompassing major muscle groups and then progress to the more specific muscles used in climbing. Pay an equal amount of attention to the opposing muscle groups because this will provide the balance necessary to maintain adequate support for the entire body.

The last step of a proper cool down is hydration and nutrition. While climbing, your body consumes a great deal of your stored water, nutrients, and minerals. The replenishment of these stores is a key component of your body's natural recovery processes. Drink plenty of water and enjoy a high protein snack, or have a high electrolyte sports beverage. If you are pursuing a vigorous training regimen, you will need to delve into greater detail with your post workout nutrition in order to obtain the best results.

Now go chill and think about how much you will crush it next time!

## Flexibility

Whether you are a beginner and do not have the strength to pull a move, or you are an advanced climber and are “wiring” the beginning of a problem to have enough strength for the crux, flexibility is an important skillset to develop for maximizing your efficiency when climbing.

The benefits of stretching extend beyond the physiological fine tuning of warming up and cooling down. Stretching increases flexibility. By increasing the range of motion that your joints are functionally active, a greater variety of body positions become attainable for any given move. This increases your access to more technical or efficient movements, potentially conserving precious energy, and to more solid or positive positions for active resting.

For instance, poor flexibility can limit the number of solutions available to you for a particular sequence forcing you to use powerful, energy-sapping moves. However, with increased flexibility, you could use a more technical solution thereby saving energy through the sequence instead.

Working on flexibility can be as easy as increasing the length of the static stretches you chose for cool down. To increase your range of motion, simply hold the stretches for 30 seconds or more. Some other highly effective activities for increasing your flexibility are yoga and PNF stretching (an advanced type of static stretching). Find one that works for you or customize your own routine. Focus on a holistic set of stretches, so that you are providing proper balance and support for all joints and muscle groups.

Flexibility is one the few skillsets that you can work on everyday. Though developing power, endurance, and power-endurance all require rest days immediately after sessions, stretching can be done any day regardless of your workout and rest cycle.

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## Recommended Stretches



**Deltoid Stretch** - Cross your arm in front of your chest and pull on your elbow with the opposite arm.



**Triceps and Lats** - Reach behind your back and pull down your elbow with the opposite arm.



**Forearm Flexors** - With your arm extended and straight, pull back gently on your fingertips until you feel the stretch on the lower part of the forearm.



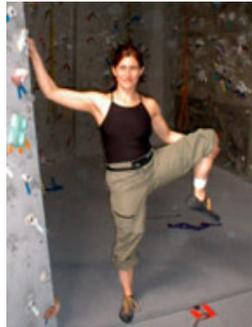
**Forearm Extensors** - With your arm extended and straight, pull inward on the back of your wrist, you should feel the stretch on the top of your forearm.



**Leg Abductor** - Cross one leg over the other and pull it towards your chest with the opposite arm. You should feel the stretch across the outside of your buttock and hip.



**Butterfly** - Pull your feet inward and press down on the insides of your knee with your elbows.



**High Steps** - This stretch will improve your ability to do high steps, first pull your leg up with your arm until you feel the stretch, hold it for 15 seconds, then let go your arm and try to maintain that height. Next work on actively lifting your leg up without the aid of your arm.

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