

# Running Training

## TIP # 5



**T**here is enough evidence in the research that shows that **regular stretching has a positive influence on the prevention of injury if practised at a distance from workouts.** Regular stretching also improves muscle force production, speed, jumping and running economy.

### When should one stretch?

Static stretching before physical activity has proved to significantly decrease performance of speed, strength, impulsion and strength endurance. It does not decrease the risk of injury and might increase the incidence of injury. We do not recommend stretching pre workout. Warm up should include dynamic movement through full range of movement rather than static stretching. Stretching after workouts allows muscles to return to their pre run length but does not effectively change the length. Stretching at a completely different time from when you run/ work out results in significant increases in muscle length over time. Plan to stretch about 4 hours before or after a workout or before bed.

### How long should one hold the stretch?

Most of the increase in flexibility takes place within the first 12-18 seconds. There are insignificant gains after that. 80 % of the "stretch" occurs after the first three stretches. Hold each stretch 20 seconds and do 3 or 4 repetitions.

### How often should one stretch?

A single bout of stretching increases muscle flexibility through elongation of the connective tissue and muscle tendons. By stretching over several weeks or months a muscle gains length through the active component by adding muscle fibres to the ends of the muscle itself. Increases in flexibility following static stretching rapidly decrease in the 15 minutes following the stretch. A significant gain can be observed for 24 hours and improvement is possible with a daily program. Be patient and stretch daily.

### As a runner what muscles should I stretch?

Running requires work of the muscles in the spine and lower extremity especially on the back of the leg. Therefore focus on stretching the glutei, hamstrings, calves and lower back. As we toe off, the hip goes into maximal extension. If the hip flexors are tight one may excessively arch the back. To avoid injury stretch the hip flexors.

### Important general tips for stretching:

Stretch with proper form. Choose positions in which you are relaxed to allow for optimal stretching. Never stretch cold muscles. Increasing the muscles temperature before stretching allows for greater elongation. Do a gentle warm up before stretching especially after a period of inactivity. Never bounce or extend stretches to the point of discomfort. Stretching should not be painful.

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