

Injury Prevention & Recovery

A Brief Guide to Practices and Products

By Candace Karu

As featured in the April 2004 issue of Running Times Magazine

For runners, an ounce of prevention really is worth a pound of cure. Maintaining a strong core and muscular balance with a regular workout routine that incorporates simple aids such as stability balls, medicine balls, and resistance bands can help prevent running injuries for years to come, without the expense of a gym membership. Enhanced flexibility using stretching tools can add to your performance on and off the roads. Self-massage will not only ease aches and pains, but can also improve a runner's ability to stretch and remain injury free.

Heat and ice therapies can minimize stiffness and swelling, keeping minor injuries from turning into major problems. Gel shoe inserts can add much-needed cushioning, delaying or preventing overuse injuries of the feet and legs.

Pictured are some popular sports medicine aids used by runners on our staff. This grouping is by no means comprehensive. If there is a device that has worked well for you, tell us about it at www.runningtimes.com/forum.

—Candace Karu



Heating / Icing

- SnowPack
505.474.4115; www.snowpackusa.com
- Contour Pak
800.926.2228; www.contourpak.com
- Active Wrap
866.880.9777; www.activewrap.com
- Frozen Sweet Peas
Ask your local grocer.
- Thermophore
(not pictured) Automatic moist heat pack that draws moisture from the air.
877.633.9464; www.thermophore.com

HEATING & ICING

Why Heating & Icing Are Important

Heat and ice are important therapies for many running related pains and injuries, but there is often a question of when to use one or the other. Heat may be used prior to activities to "loosen up." Warm muscles move and stretch more efficiently than cold. Application of heat for 10 to 15 minutes prior to a run may help stiff or sore joints move easier, but do not apply heat to recently injured muscles or joints, as the increased blood flow to the area may significantly increase swelling. When you're finished with your workout, it's time for ice.

Ice is the original anti-inflammatory, reducing swelling and pain. Apply ice for 10 to 15 minutes several times a day. Remove the ice if you experience pain. Applied directly to the skin, ice may cause frostbite, especially if your skin is wet. This problem can be avoided by placing a thin piece of cloth between skin and ice or by using commercial gel packs covered by material. Be careful for leaks when using chemical cold packs, as the chemicals can burn the skin. Bags of frozen peas and corn are also effective icing tools, conforming to the body with very little dead space.

Ice massage is also quite effective. Freeze a paper cup full of water and roll the cup over the painful area—this is great for shin splints. A frozen can is very effective in the treatment of plantar fasciitis. Roll the can from the heel to the ball of the foot for 5 to 10 minutes after a run.

—Cathy Fiesler, MD

FLEXIBILITY

Why Flexibility Is Important

When elite runners are interviewed, they will often talk about the importance of "taking care of the little things." One of the most important "little things" in our sport is flexibility. Flexibility is vital to increasing and maintaining your stride length and range of motion, and is also a major factor in injury prevention. The best way to improve flexibility is through stretching. Different athletes stretch in different ways, but the two most effective types for runners are static and active isolated. In the traditional static method, the muscle is stretched through a long, continuous effort. Active-isolated stretching is a newer technique. The muscle is isolated and the stretch is assisted by contracting the opposite muscle. For example, the quadriceps should be flexed during a hamstring stretch.

Stretching

- **Strassburg Sock**
Helps cure plantar fasciitis. More comfortable and significantly cheaper than the cumbersome "boot" prescribed by most doctors. (Note that your sports-med doctor knows best: in some cases the sock may not distribute the stretch as well as a prescribed splint.)
800.452.0631; www.thesock.com
- **Stretchrite**
(not pictured) Assists in isolating muscles and performing stretches correctly and safely. Endorsed by USATF.
800.810.1740; www.stretchrite.com
- **Wharton Stretch Rope**
(not pictured) 800.240.5805; www.airetretch.com
- **Fraid Nots**
(not pictured) 888.565.9559; www.tomdrum.com

Strengthening

- **DARD**
Dynamic Axial Resistance Device
(pictured on page 30) Helps to rehab and prevent shin splints.
800.566-9196; www.fiestylesport.com
- **Speed TU-BE**
(pictured on page 30) Increases strength and corrects muscular imbalances.
888.566.9559; www.tomdrum.com
- **Therapy Ball**
Swiss Ball
Stability Ball
(not pictured) Improves flexibility, balance and core strength.
www.fisert.com
www.fiestylesport.com
www.performbetter.com

Massage

- **Trigger Point Technologies Massage Ball and FootBaller**
The colorful ball mimics the feeling of a thumb and is tremendous for self-administered shiatsu, while the roller is great for deep calf muscle massage (soles).
888.312.2557; www.tpmassageball.com
- **Biofoam Roller by Perform Better**
Quickly improves alignment and hip mobility while increasing core flexibility.
800.556.7464; www.performbetter.com
- **The Stick**
(not pictured) 888.882.0750; www.thestick.com



The technique for these two types of stretching differs, but the preparation for each is the same. An easy jog of 10 to 15 minutes is recommended to warm up the muscles. Stretching is not effective and can even cause injury if performed with cold muscles. An alternative to jogging is to do some light exercises: squats, leg swings, etc. You should try to stretch both before and after a run for at least 10 minutes, but if pressed for time, focus on post-run stretching.

There are many stretching aids on the market that will help runners get the most out of a regular stretching routine. It is important to follow the instructions provided with these products carefully in order to prevent injury while improving flexibility.

—Zika Palmer, Director ZAP Fitness

MASSAGE

Why Massage Is Important

Though the immediate and long-term benefits of massage are difficult to prove, many top runners are certain that regular treatment at the hands of an experienced sports-massage therapist aids in their recovery. For those who want to train hard and repeatedly during a week, it is often between-workout practices and habits that determine how effective their labors ultimately become. Anything that facilitates recovery, a lack of scientific evidence notwithstanding, is certainly worth investigating.

Ideally, everyone could get regular professional massages, but most of us have limitations in the time and money necessary. Learning to work on your own muscles is a valuable training and recovery adjunct. Working diligently on your calves, hamstrings and quads while you relax in front of the TV or even in front of your computer at work can be worth the effort. You can rely only on your own 10 fingers or include such devices as the well-known "Stick" or those shown here to help loosen chronically tight or troublesome areas. For best results, ask your massage therapist for tips.

—Kevin Beck, Competitive Marathoner

STRENGTH

Why Core Strength Is Important

Running is a complicated, interdependent series of miniature events that requires us to accelerate, decelerate and stabilize our center of gravity over our base of support. The most crucial part of this chain is the core of the body—the mid-back through the hips—where all movement begins and is governed. A strong core that has been developed in all three planes of motion provides the foundation for power (speed), efficiency of movement, and injury prevention.



Smart runners have always done crunches, but many of us didn't recognize the importance of multi-directional movement in all three planes, nor did we focus much on "ab work" that challenged our stabilizing muscles. The stability ball, foam roller, and medicine ball all develop the stabilizing muscles in the spine and promote muscular strength symmetry, two important aspects of preventing lower back

pain. Many runners rely on superficial core muscles instead of the deep abdominal musculature to stabilize their gaits, and this substitution often leads to decreased neuromuscular control, muscle overload, and injury. Thus, although running does develop core muscles, specific core work is a very important aspect of training for all runners.

—Sarah MacColl, ACE Elite Certified Personal Trainer

Photography by Kristin Burke / Peter Baker Studios

Copyright © 2009 [Running Times Magazine](#) - All Rights Reserved.