

# OPTIMAL HEALTH UNIVERSITY™

Presented by Katie Gravesen, DC

## Sideline Running Injuries

*Running and jogging can be phenomenal health-boosting activities. However, as with any sport, injuries can sideline even the best of intentions. As part of the chiropractic approach to sports injury prevention, Dr. Gravesen focuses on teaching runners and joggers how to ward off injury before it occurs. When injury does take place, chiropractic offers all-natural solutions, which allow athletes to avoid surgery and medication.*



Running injuries are primarily caused by overuse due to training errors, such as running too far and too fast (*Am Fam Physician* 1997;55:2473-84).

And running injuries are on the rise. With more children and adults participating in recreational and competitive running, the incidence of injuries has steadily increased over the last several years (*Sports Med* 2005;35:991-1014).

That's why the chiropractic approach to caring for running injuries starts with identifying the underlying dysfunction. From there, "The chiropractor can implement a multilevel treatment protocol that involves manipulative therapy, restoration of faulty biomechanics, strengthening of weakened muscle groups and motor pattern re-education." (*Clin Podiatr Med Surg* 2001;18:351-62.)

Read on for details on some common running injuries and how chiropractic can help alleviate them.



### Vertebral Subluxations

Running injuries can result in restricted spinal movement and misalignment of spinal bones (vertebrae). This common condition — which can also be sparked by a number of other physical, chemical and emotional instigators — is known as **vertebral subluxation**.

Vertebral subluxations are linked to backaches, headaches and a litany of other health concerns. Left unchecked, they can destroy an individual's well-being.

Dr. Gravesen corrects vertebral subluxations with safe and gentle maneuvers called **chiropractic adjustments**: restoring the spine to optimal health.

### Sacroiliac Joint Dysfunction

The sacroiliac (SI) joints connect the sacrum (the triangular bone at the base of the spine) with the pelvic bones (iliac bones). If movement within the joint becomes restricted — or too loose — it can result in sacroiliac joint dysfunction.

This painful condition sidelines runners and nonrunners alike. Fortunately, doctors of chiropractic, like Dr. Gravesen, correct SI dysfunction with chiropractic adjustments.

For instance, in the case of a 32-year-old male marathon runner, who ran

approximately 100 to 150 kilometers per week for three years, SI pain stopped him dead in his tracks. But just one month after completing two weeks of chiropractic care, he was pain free: with the option to slowly merge his way back into the fast lane of marathon running (*J Manipulative Physiol Ther* 2005;28:1-7).

Another case study followed a 45-year-old man experiencing difficulty walking. The man underwent chiropractic adjustments of the lumbar (lower spine) and sacroiliac joints "and a rehabilitation program that consisted of in-office and home exercise programs. The patient experienced a decrease in the pain and an improvement in the flexibility and strength that led to an improved gait pattern and decreased pain." (*J Manipulative Physiol Ther* 2004;27:11.)

### Shin Splints & Stress Fractures

Shin splints — characterized by pain along the front or either side of the lower leg — are caused by inflammation of the sheath-like covering surrounding the tibia (the leg bone connecting the ankle to the knee).

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Shin splints can be sparked by:

- Running on hard surfaces
- Running on tip toes
- Jumping sports

You can prevent shin splints through the use of proper stretching techniques, shin supports and appropriate footwear (see tips below).

A word of caution, however: Stress fractures can mimic shin-splint symptoms. Long-term disability may occur if stress fractures are not diagnosed and properly addressed. This is particularly true for women, who are more frequently affected by stress fractures than men (*Sports Med* 2005;35:991-1014).

### Osteoarthritis

Hip osteoarthritis “may produce persistent pain that worsens with running.” (*Sports Med* 2005;35:991-1014.)

Fortunately, chiropractic care has an impressive track record in mediating osteoarthritis (OA). A recent study found that chiropractic — particularly when combined with heat — is a truly winning formula for OA-related discomfort. According to the report, “pain reduction occurs more rapidly and to a greater degree, and ROM [range of motion] increases more rapidly and to a greater degree.” (*J Manipulative Physiol Ther* 2006;29:107-114.)

### Running Injury Prevention Tips

The following are just some of the ways you can help prevent running-related injuries:

#### Get Proper Shoes

Running shoes are designed specifically for different foot types in order to reduce injuries. “Running in the correct footwear matched for foot type may have a greater influence on mechanics when runners become exerted.” (*Gait Posture* 2006;24:N/A.) This conclusion was based on obser-

ventions made during a study of runners with low and high foot arches.

The low-arched group was divided into two cohorts: those who ran in shoes that limited foot motion and those who ran in more flexible cushioned shoes. The group in limited-motion shoes experienced less inward rotation of the tibial bone: decreasing strain on its outer sheath and reducing the likelihood of developing shin splints. The opposite was true for their low-arched counterparts wearing the cushioned shoes.

The high-arched group was similarly divided. But here’s an interesting twist: Those who ran in the cushioned shoes experienced less inward rotation of the tibial bone, while those wearing the limited-motion shoes were at higher risk of developing shin splints.

That’s why having your feet examined and your running shoes professionally fitted is important for injury prevention.

#### Stretch

You should perform stretching exercises for the lower extremities on a regular basis — as well as just prior to and following a run.

Ask the doctor for specific exercises geared toward your unique circumstances.

#### Strengthen

Strengthening the muscles in the front of the calf and hamstrings, to counteract tight calves and quadriceps, prevents shin splints by reducing tension exerted on the tibial bone.

#### Be Aware of Posture and Foot Position

When running, concentrate on your posture. The idea is to keep your center of gravity in *front* of your foot strike — not behind it. Also, avoid landing on the heel or ball of your foot.

#### Respect Pain

“Running through the pain” often escalates a minor injury into a major catastrophe.

If you are in pain, stop and make adjustments to your gait and posture before proceeding. If these adjustments don’t help, hang up your running shoes until you have a full chiropractic evaluation.

In addition to identifying tissue injuries and biomechanical deficits, the doctor will consider gait and other dynamic assessments to “reveal underlying deficits in function that may have contributed to injury. In short, the entire functional kinetic chain must be considered and weak links identified.” (*Phys Med Rehabil Clin N Am* 2005;16:623-49.)

### Make Us Your Running Partners!

The doctor may not be able to run alongside you *every* mile, but that doesn’t mean the two of you can’t still be a team!

Call our office today to schedule a full physical and learn how chiropractic care can keep your body running at peak performance.

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