

SAINT FRANCIS SPORTS MEDICINE

Making athletes of all ages BETTER, STRONGER, FASTER since 1995.

- ⊕ Do Your Feet Over-Pronate or Under-Pronate?
- ⊕ Do You Buy Your Running Shoes Based on Price or Need?
- ⊕ Plantar Fasciitis May Originate With Poor Footwear



Do Your Feet Over-Pronate or Under-Pronate?

Understanding this foot-strike characteristic helps with shoe selection

One of the most confusing aspects of selecting appropriate running shoes is the concept of foot pronation. Ask many athletes if they over-pronate or under-pronate, and you likely will get a glazed look with an embarrassed, "I don't know."

Actually, pronation is relatively easy to explain and arrives with its own illustration in the way of a worn pair of running shoes.

Pronation explained

There are three general types of foot pronation: neutral, over-pronation and under-pronation. Each brings its own set of characteristics when it comes to shoe selection.

Neutral pronation features the foot landing on the outside of the heel and rolling through to the ball of the foot evenly across the forefoot.

Over-pronation features too much roll toward the inside of the foot and ankle. Excessive over-pronation creates stress on the foot and ankle as it works to properly stabilize the body. Mild over-pronation is very common.

Under-pronation or supination means the foot does not roll enough toward a neutral position (high arch), placing excessive stress on the outside of the foot.

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“Ask your shoe store expert if shoes with extra stability or cushioning might be appropriate for you,” Lance Eaker, MS, ATC, CKTP®, Certified Athletic Trainer at Saint Francis Medical Center says. “Let them know if you will be wearing the shoes for higher-mileage training runs or racing, because that will make a difference in the models they recommend for your foot type.”



Lance Eaker, MS, ATC, CKTP®

For more information about injury prevention for runners, please call the Sports Medicine team at Saint Francis Medical Center at 573-331-5153.

Do You Buy Your Running Shoes Based on Price or Need?

The cheapest pair on the rack may not be doing your feet any favors

Aside from the obvious marketing angle, there is a fundamental reason why athletic shoe companies offer a wide range of designs for running shoes: no two strides and no two people are exactly alike.

Knowing what to look for in your next pair of shoes could spell the difference between enjoying injury-free running and a season of nagging aches and pains.

“Have you noticed how you can identify a runner by their stride?” asks Lance Eaker, MS, ATC, CKTP®, Certified Athletic Trainer at Saint Francis Medical Center. “That’s because the combination of body type, stride length and foot strike are unique to each runner. It’s also why runners need to take multiple factors into consideration when investing in footwear.”

What type of runner are you?

Do you enjoy a slow, early-morning jog to get your day started? Or are you piling on the miles while training for a marathon?

Shoe companies offer a variety of styles, sole types and cushion designs to accommodate virtually every type of runner and every situation. For example, a competitive middle-distance runner has very different shoe requirements than a recreational trail runner.

Track your shoes’ mileage

Like changing the oil in your car every 3,000 miles, most experts suggest replacing your shoes after about 500 miles. This holds true whether you think your shoes need replacing or not.

“The fact is many shoes still look pretty good after 500 miles, but the effect of all those strides have taken a toll on the soles and their ability to absorb shock,” Eaker says. “Depending on your stride length, you will have compiled upwards of 150,000 stride impacts per foot during the course of those 500 miles. It is best to rotate out the worn shoes and repurpose them for things such as yard work.”

Avoid buying on price

No one wants to spend a lot of money on shoes, but keep in mind you often get what you pay for. More importantly, getting the right shoe for your needs may be the single most important factor in helping you avoid foot and lower leg injuries.

Consult with a knowledgeable running store to identify the most appropriate shoes for your unique needs. Bring an old pair with you so they can see the wear pattern.

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Plantar Fasciitis May Originate With Poor Footwear

Sufficient support can help prevent this performance-robbing pain

Since most athletes depend on their feet in order to excel in their sport, plantar fasciitis can create a frustrating obstacle to performance that takes time to heal.

Plantar fasciitis is a painful inflammation of the fibrous band of tissue that runs along the bottom of the foot and helps with arch support. The condition features small tears in the fibers, particularly where they meet the heel bone.

“Wearing shoes that properly support your arch and cushion the heel is the most effective preventive method for plantar fasciitis,” says Lance Eaker, MS, ATC, CKTP®, Certified Athletic Trainer at Saint Francis Medical Center. “Gently

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stretching the Achilles' tendon prior to exercise also may prevent this source of pain."

Symptoms of plantar fasciitis

The inflammatory pain of plantar fasciitis typically comes on gradually, but it can occur suddenly as well. When pain occurs suddenly, the athlete will feel first-step pain that makes performing virtually impossible.

Athletes often attempt to shrug off the gradual onset of plantar fasciitis discomfort much as they do with shin splints. However, once symptoms begin to appear, they typically will not improve without a combination of alteration to training and treatment.

A certified trainer usually can provide an initial diagnosis based on the athlete's activity and pain description. A physician may order tests or scans to rule out other conditions such as a stress fracture.

Treatment options

There is no quick fix for plantar fasciitis, although initiating treatment during the early onset of minor symptoms may make the condition tolerable enough to continue participation.

"The first steps often include a combination of rest and stretching exercises that work the plantar fascia and Achilles," Eaker says. "Athletes can help their cause by doing little things such as not walking barefoot or wearing shoes that provide little arch support, in addition to altering training surfaces and modalities."

Athletes in endurance sports also may want to consider cross training in the pool or on a bike to minimize the stress on their feet. Taping the injured foot during exercise and applying ice massages afterward may provide some relief.

Anti-inflammatory drugs such as ibuprofen or acetaminophen may be appropriate to combat pain, along with physical therapy techniques including ultrasound, massage, stretching and strengthening.

Many runners experiment with over-the-counter orthotics with limited success, primarily because foot and leg issues are unique to each runner. The Sports Medicine team at Saint Francis Medical Center can order custom-made orthotics designed specifically for the individual athlete.

"The support provided by custom orthotics helps a runner's feet perform at their optimal level," Eaker says. "More important, they can help prevent injuries from cropping up that affect training."

Your physician may suggest other more aggressive forms of treatment for severe symptoms.

"The athletic training team typically recommends proper footwear as the primary way that athletes can prevent the onset of plantar fasciitis and other options as assessed," Eaker says. "Make sure your shoes have enough arch support, sole flexibility and heel cushion to protect your most important physical assets."

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Save the Date for the Fall 2014 Coaches Clinic Thursday, September 18 • 8:30 am to 1:30 pm

Saint Francis Medical Center is proud to announce its tenth annual Fall Coaches Clinic. Each year, the program focuses on a variety of topics relevant to today's coaches and athletes. The clinics are designed to make coaches more aware of current issues and opportunities and help them achieve excellence for their programs, as well as keep their athletes safe and healthy.

