## These Feet Were Made for Running Learn how to run barefoot the right way

By Jane Sims

running shoes come with high-tech features such as motion control, arch supports and high-tech fabrics to fit every runner's needs. Yet barefoot running running without shoes or running in minimalist shoes with a thin, compliant sole—never went out of style among hardcore barefoot running enthusiasts and among Kenyan marathon runners who prove that running barefoot is not only harmless, it may actually enhance performance. Is barefoot running really better, and is it for everyone?

"Barefoot running encourages the runner to adopt a forefoot strike, landing on the cushiony balls of the feet, which absorbs the force of impact when feet hit the ground," explained

Aaron Vaughan, MD, a primary care sports medicine specialist at Mission Sports Medicine and MAHEC. "In comparison, running in shoes tends to encourage a heel strike, which results in a higher impact force radiating from the feet up to the legs, knees and hips."

"Several studies have found that barefoot runners tend to have fewer injuries, including knee and hip pain, than do runners who wear shoes," continued Dr. Vaughan. "There's also evidence that running barefoot increases running efficiency and speed."

Dr. Vaughan explained that barefoot running enhances proprioception, the sense of where a body is positioned in time and space, which enables the barefoot runner to detect subtle changes in the terrain. Barefoot running is also a lighter way to run, because shoes add another 6 to 12 ounces to a runner's weight, "which can be pretty significant, especially during long-distance runs and marathons."

On the downside, barefoot running has some risks—it's associated with foot injuries from road debris and stress fractures of the foot and ankle.

"These stress fractures are usually among barefoot runners who have increased their speed or mileage too quickly," said Dr. Vaughan, who added "this kind of overtraining is a risk for all runners, regardless of the whether they're barefoot or not."

From cushioned minimalist shoes to barefoot running, Dr. Vaughan noted there has been no significant change in the overall incidence of running injuries over the years in spite of running shoe trends. "In any given year, 50 percent of all runners will experience some type of injury, and 25 percent of all runners will be injured at any point in time."

To talk with a primary care sports medicine specialist about barefoot or minimalist shoe running, call (828) SPORTS-1 (776-7871). Moreover, there's no clear consensus among the scientific community regarding whether wearing any particular type of running shoe or no shoes at all is helpful or harmful. "Barefoot running does seem to benefit a subset of individuals, but it's not for everyone," said Dr. Vaughan. "It's especially inappropriate

for people who have chronic knee pain or previous foot injuries."

If you want to try barefoot running, tread with caution. "The majority of us have been walking or running in shoes for a very long time, so be careful not to stress your feet in a way that they're not used to," advised Dr. Vaughan.



Aaron Vaughan, MD, is a primary care sports medicine specialist at Mission Sports Medicine and MAHEC. (828) SPORTS-1 (776-7871)

## Tips for Running Barefoot or in Minimalist Shoes

Tread slowly and carefully. As you would do with any significant change in your running style, break in your bare feet slowly to avoid injury.

Run on soft surfaces such as dirt or running tracks because running on hard surfaces (asphalt roads or concrete sidewalks) can create stress and strain on joints, muscles and bones.

Check with a sports medicine specialist if you are unsure whether you should switch to barefoot running or minimalist shoes.

Finally, it's better to run with shoes than to not run at all. It's more important to run than not to run, so if you can only run with running shoes, keep running in shoes that are comfortable for you.