

Probing Question: Is it better to run barefoot?

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The United States has more than 30 million adult runners -- plenty of active feet to fuel a \$18.1 billion-a-year athletic shoe industry, according to the NDP Group, a global provider of consumer-industry information. Among the thundering hordes, however, a small but growing number are foregoing shoes altogether, following in the footsteps of self-pronounced "barefooters" like Ken Bob Saxton, who has been running marathons barefoot since 1997.

Saxton doffed his sneakers for reasons of comfort, he said. Many others, however, regard going barefoot as an ideal way to remain in touch with nature -- a phenomenon that in Europe has led to the emergence of parks designated specifically for barefoot hiking and exploration. Whether a fleeting fad or a therapeutic revelation, most can agree that running barefoot is anatomically natural, said Neil Sharkey, Penn State professor of kinesiology.

After all, Sharkey noted, people aren't born with shoes on. In fact, "Some evidence suggests that people who run with shoes may be more prone to chronic injuries and acute ankle sprains than people who run barefoot," he said. Thick layers of padding and stabilizing devices can hinder as well as protect.

Research in the so-called Pose Method of running, a relatively new technique that focuses on the laws of nature and gravity, shows that wearing shoes can sometimes force the feet into unnatural positions, he explained. "When most people run in shoes, they tend to hit the ground

with their heel first."

By contrast, when running barefoot, people develop increased awareness (called proprioception) and sensitivity that allow them to land more evenly on the entire foot, Sharkey said. This helps to cushion and absorb the force of impact by using the foot's natural force-damping mechanisms. "Depending on how they're made, shoes can interfere with this natural shock-absorbing mechanism," he noted.

The sheer weight of shoes also may drag athletes down in competition, giving those who train barefoot a slight edge, Sharkey said. He cited the case of Abebe Bikila, an Ethiopian marathon runner, who won an Olympic gold medal in 1960 for a race he ran entirely barefoot. More recently, South African Zola Budd ran barefoot to two world cross-country championships in the 1990s.

For those recreational runners who wish to try running barefoot, Sharkey suggested, the key is to start slow. The long years of running with shoes take time and effort to counteract. "[A runner who is new to barefoot running] needs to thicken the skin of the foot and also strengthen the ligaments and muscles to better respond to the environment," he said.

Unfortunately, the available surfaces in developed countries such as the United States aren't always suited for this kind of training. "Most runners are out there running on the side of the road or on pavement, under conditions where they really run the risk of stepping on broken glass or nails," Sharkey warned.

To counter this problem (and take advantage of a trend), footwear giant Nike has developed a lightweight shoe called Free, which is purported to mimic the barefoot experience while still providing a layer of protection. Proponents suggest that the shoe can increase running performance by stimulating the foot's natural strength and flexibility. "This may be so,

but I'm not aware of any strong data supporting this view," said Sharkey. "Even a segmented thin-soled shoe can compromise the foot's natural action. Without the support of a traditional shoe, this may create even greater problems, especially for beginning runners," he suggested.

For barefooters at all levels, Sharkey recommends running in a safe place where hazards can be easily spotted. Athletic facilities with proper upkeep such as a university track or football field are good locations. "It's perfectly legitimate to run barefoot where you're certain there isn't anything that could damage your feet," he said.

Though switching over too suddenly may risk both pain and injury, Sharkey stressed, if a runner starts small, making gradual adjustments over a course of weeks and months, the soles of the feet can adapt to withstand all kinds of insults that once would have stopped people in their tracks.

Source: By Tia Bochnakova, Research Penn State

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