

BAREFOOT TRAINING!!

“Foot troubles, common among ‘civilized’ people, are rare in those who go barefoot.”

--Dr. Simon J. Wikler, Take Off Your Shoes and Walk

Did you know that athlete’s foot does not occur among people who traditionally go barefoot? Feet and hands both have the same amount of sweat glands – it’s the moisture, sweating, and lack of ventilation to the feet that allows athlete’s foot fungus to grow. There is also a low frequency of plantar fasciitis in barefoot populations.

The reasons for barefoot training, however, go far beyond just foot problems and shoe styles. In pictures of bodybuilders ‘back in the day’ of Arnold, Dave Draper, Lou Ferrigno and other early giants in the sport, many show the athletes barefoot in the gym. Barefoot running, something other cultures have done for centuries – caught the ‘civilized’ eye in the Rome Olympics of 1960 when an Ethiopian, Abebe Bikila, ran the marathon barefoot, setting a world record – and in another year, so did Tegla Loroupe. Zola Budd always trained and ran barefoot, culminating in eventually winning the World Cross Country Championships, twice.

Over the last 20 years or so, running shoes in particular have overtaken the gym population as ‘the shoe’ to wear while training – with the emphasis on how much work the shoe does for the athlete. Many non-running folks buy running shoes to train in due to the exorbitant cushioning, and even ‘cross training’ shoes are built heavily cushioned as running shoes. Here, rather than going into an in-depth history of the athletic shoe and the resulting politics of mega-bucks marketing, we’re going to talk about the results of having your shoes do the work for you.

The following research is focused on running in particular. As a sweeping statement, all modern running shoes are dangerous as a result of their construction. Robbins, et al, in [\[1\]](#), stated:

Modern athletic footwear provides remarkable plantar comfort when walking, running, or jumping. However, when injurious plantar loads elicit negligible perceived plantar discomfort, a perceptual illusion is created whereby perceived impact is lower than actual impact, which results in inadequate impact-moderating behavior and consequent injury.

In (2), goes on to state:

The modern running shoe and footwear in general have successfully diminished sensory feedback without diminishing the injury inducing impact, a dangerous situation.

Hence, modern running shoes with all their cushioning deprive the wearer of the natural, sensory feedback from the soles of the feet so that running improperly no longer *hurts* and, very frequently, injury is the result.

A barefoot runner naturally learns how to run so that it doesn't hurt and, more importantly, this running style is safe unlike running shod. To support this claim it has been shown that barefoot runners have a very low incidence of running-related injuries as Robbins, et al, in (1) stated:

In addition, in barefoot populations running-related injuries are rare, which indicates that humans adapted to barefoot running run with lower impact than the unadapted group referred to above. This also suggests that the lower extremity is inherently durable and is made susceptible to injury by footwear use. Based on the above data, notwithstanding unsupported claims by footwear manufacturers of improved protection with their products, it seems appropriate to consider expensive athletic footwear from major manufacturers (and perhaps less expensive shoes) as unsafe.

Why are running-shoe companies making dangerous footwear? Robbins, et al, further explained:

Such designs occur when an engineer looks at the foot as an inflexible lever which is delicate and thus requires packaging. Various myths persist about foot behavior due to poor understanding of its biology.

And, in (2):

...these concepts are still being promoted by biomechanists, physicians, and manufacturers of footwear as an effective solution to the injury problem in high impact environments.

Hence, the continued belief that modern running shoes are protective persists because the "experts" say so. There are also other reasons that relate to investors and a fascination with hardware, as well as an environment where research is conducted 'in-house'.

It is not a large leap to take the research from running in running/athletic shoes to gym training. The large cushioned soles of running shoes push the entire skeletal system of the human body into an un-natural forward lean position – emphasizing rounded shoulders with an extended neck and head, knee issues, hip problems, ankle strain, etc. It is also very difficult to flex

one's foot and spread the toes for balance in a typical athletic shoe. Many athletic shoes are designed to 'correct' foot issues – like pronation – that relieve the body of the need to muscularly develop and naturally overcome distortions. It is almost impossible for a person to stand grounded through all four corners of their feet with equal pressure and maintain healthy structural alignment in conventional running/athletic shoes.

“The human foot is a masterpiece of engineering and a work of art”
--Leonardo D' Vinci

A partial list of barefoot sports:

Martial arts

Gymnastics

Yoga

Dancers

Circus performers: trapeze, acrobats, high divers, escape artists

What do these have in common? A need to ground the body through the feet to be able to feel, judge, move, balance and perform with precision. A shoe distorts the messages the body receives through the many nerve endings of the feet and does not allow the foot to communicate properly – or send the correct messages – to the rest of the body.

Even – or perhaps especially – in walking. Humans are, by nature, designed to walk barefoot – all the equipment and engineering has been provided! – And wearing shoes makes proper walking gait difficult if not impossible. The more shoe, the more the body will tend to let go of the gait muscles and rely on the hip flexors for motion instead. This leads to a host of problems and injuries from using the body incorrectly. In my work, I've witnessed countless knee, ankle, neck, hip, shoulder and back pain issues effectively cleared up just by changing the shoes and teaching basic structural alignment. Once the feet are communicating properly with the body again, and the muscles are trained to carry and support the skeletal system in the appropriate way, many physical pains and problems dissolve. For the body to operate in the way it was intended, the communication from the feet is essential. This allows all the muscles to engage in proper sequencing and to develop in a healthy, natural, pain free way.

Barefoot training enhances your natural walking motion, strengthens foot muscles, increases range of motion, and stimulates muscles in the feet and

lower legs for greater balance, agility, and strength. It also helps to straighten your spine, assists proper alignment, and can reduce lower back pain. Folks who normally wear shoes will have to allow sufficient time for adaptation of the plantar skin and intrinsic foot musculature when training barefoot. Once adapted, the foot is very durable – but it can take as long as 6 weeks for the strength to build, as with any other musculature of the body.

“If you want an ‘expert’ opinion about Running Barefoot, do not go to the person who makes money selling shoes!” - Barefoot Ken Bob

In my own experience, I noticed this issue and was able to correct many postural problems and training issues by having folks either train barefoot (preferred but difficult in a public gym setting) or wearing flat-soled shoes. Then Nike came out with the Barefoot Trainer. This shoe was developed with the input of athletic coaches and, notably, Pete Egoscue – a pioneer in the work of structural awareness and training. The Vibram Five-Fingers is another barefoot shoe, and the popular Crocs allow your foot to spread and contact the ground as well.

In looking for a shoe, remember that you want the least amount of shoe possible, and you want to be able to get a good sense of the ground in the shoe. Your toes should be able to spread and flex. You should be able to flex your foot in the shoe – lift your toes with the ball of the foot on the ground, for instance. A simple flat converse sneaker will be better than a running shoe, although the toe spread is lacking for most folks.

If you are concerned about arches, orthopedics, and support, remember that your foot is going to be developing muscles to do that work on it’s own. So you can start out with wearing your structurally supportive shoes (or simply going barefoot to train!) more and more over the course of the day, rather than all day all at once.

1. Steven E. Robbins and Gerard J. Gouw. "Athletic footwear: unsafe due to perceptual illusions." *Medicine and Science in Sports and Exercise*, 23(2), 1991, pp. 217-224.
2. Steven E. Robbins, Adel M. Hanna, and Gerard J. Gouw. "Overload protection: avoidance response to heavy plantar surface loading." *Medicine and Science in Sports and Exercise*, 20(1), 1988, pp. 85-92.