

B A R E  
Y O U R  
S O L E



# TO MOVE SHOD OR UNSHOD

BY LAWRENCE BISCONTINI, MA

**D**“Do those shoes make your feet feel funny?” So many times do instructors and trainers wearing minimalist shoes like Vibram® FiveFingers hear such questions. “I didn’t start off with such shoes,” says Yury Rokit, an AFAA certified instructor working in Hanoi, Vietnam. “Just like getting used to my own contact lenses, which required me to add one hour of use every day, I slowly started wearing my minimalist shoes every day. I could feel my feet muscles working in different ways during various activities, and I knew something was working that hadn’t worked before.”

Advocates, such as Christopher MacDougall in his book *Born to Run*, profile how the Tarahumara Indians successfully avoided protecting the feet for daily activities. Still others, including foot researcher Dr. Daniel Lieberman, advise even competing without the assistance of traditional shoes. In the arena of competitive running, the original Olympic athletes racing to the Greek city of Marathon accomplished their deeds unshod (Perrottet). Today, the fitness world is considering the training of intrinsic foot muscles as if they were as important as other, superior, major muscles.

## FOOT AWARENESS

To be sure, the fitness industry did not teach foot awareness until recently, despite the numerous claims that fitness starts from the feet up. Many readers who worked as fitness professionals in the last century will recall male and female muscle diagrams where the feet were cut off from the illustrations, or were shown with shoes and no labels. Today’s take proves different.

Stacey Lei Krauss, creator of The willPower Method®, based in Denver, Colo., claims that “working with foot fascia is the new black.” Krauss observes that the fitness industry only now “is just starting to understand the body’s interconnectivity as never before as we explore the power in proper movement training to facilitate healthy and responsive fascial tension and release. As a consequence, it only makes sense that foot fitness is a necessary part of full-body health. The foot-to-core connection is fascinating, and critically important.”

## FOOT FUNCTION

The foot’s anatomy dazzles the brain with its complex structure of 33 joints, 26 bones, 20 muscles and

endless sensory receptors. While all are designed to move us efficiently, absorbing forces (landing), creating forces (propulsion), and offering dynamic stability and mobility throughout movement, the softer part—the ball of the foot—seems to be its natural “pillow” designed to absorb the shocks of Activities of Daily Life, or ADLs. Traditional shoes place the foot in a plantar flexed position from the start, and gait becomes part of a heel-strike action by these forced dynamics (Robbins). When removing the shoe, however, gait becomes a forefoot-strike action, using this natural shock-absorbing quality of the front of the foot (Lieberman).

## SWITCHING IT UP

For the fitness participant willing to investigate minimalist shoes to awaken the intrinsic muscles of the feet—even for a trial effort—knowing how to make the change is key. Fabio Comana, MA, is a faculty instructor at San Diego State University. Agreeing with Rokit, he advocates a sensible changeover. He explains:

Perhaps the most common mistake is the instant transition to minimalist shoes without any modification to training volume, loads or modalities. I will always work to improve sensory kinesthesia (barefoot) in the foot and strengthen the intrinsic muscles within the foot, as this has generally been lost or largely ignored [in our industry]. I will always start by seeking to align the subtalar joint (to improve postural alignment) if possible (bearing in mind certain pre-existing non-correctible limitations). Once we see some improvement to sensory kinesthesia, I then implement a series of isolated foot exercises (barefoot) to strengthen those intrinsic muscles (performed seated). This will transition into static, integrated (standing) barefoot patterns, and later progress to dynamic movements. Finally, if appropriate, we consider mobility by coaching running technique in a minimalist style (coaching body orientation, hip position, leg cycles, foot strike, etc.).

Krauss agrees with other practical tips, sharing with her students the following link as she



spreads her message via her willpowermethod.com: willpowermethod.com/blog/fitness/why-toes/.

Certainly, abandoning the shoes does not prove a sensible choice for all, or for all disciplines. Should the gym environment suddenly dismiss shoes all together, or pick a stance between the extremes of shod or unshod? Could one imagine the gym extremes of taking a yoga class in traditional, basketball high-top sneakers, or trying a cycling class with the bare feet in toe cages? “Some diabetics, others with foot neuropathy, and others with foot issues should stay shod for the public fitness traditional environment,” recommends Rockit. Comana cautions, “although I personally see the value of being barefoot (minimalist), I respect the limitations/concerns [of] a person within a facility. I strongly encourage a gradual transition to avoid potential injury.”

### SPEAKING OF FEET

For trainers and instructors ready to explore adding some new terminology from the barefoot training nomenclature into their repertoire with clients, some key words will color the fitness vocabulary:

- heel: calcaneus
- toes: phalanges
- observable foot and ankle proprioceptive movement during isometric stabilization: ankle noise
- energy center of muscles running across the bottom of the foot from below the big toe to below the little toe: transverse arch
- energy center of muscles running down the foot perpendicular to the transverse arch from below the middle toe to the calcaneus: longitude arch
- the connection of triangular energy from the three points of area below the big toe, below the smallest toe, to the center of the calcaneus: foot triad (see Figure 1)

Today’s personal trainers do not have to be foot specialists to incorporate foot awareness moves and cues into their training. Rockit advises, “just adding some of the above terminology can help educate clients about total kinesthetic awareness from the feet up. We often teach muscles of the core, yet neglect the very body parts that move us through our lives,

literally. Just a cue like ‘lift your phalanges inside of your shoes and sit back into your calcaneus in the squat’ can help them connect to these body parts in a new way. Or ‘notice how much ankle noise you have on the right lunge versus the left lunge as you negotiate balance there’ can help a client understand body compensatory differences.”

### A TRAINING MATCH

Peter McCall works as an adjunct faculty in exercise science at Mesa College, San Diego. He recommends using the right shoe at the right time, saying, “If you play field or court sports training in minimalist shoes, [these] may not provide an advantage, [so] you want to train in the types of shoes that you will wear during your favorite sport or activity, like wearing cleats for training if you need to play in cleats, or wearing appropriate shoes for training if you play a court sport (i.e., tennis or basketball) as this will ensure that your hips and core can properly stabilize the forces created when the feet impact the ground.” Like his colleagues, McCall also advocates sometimes losing the shoes and training unshod, saying that being barefoot gives “better contact with the ground, more normal motion in the foot and lower leg, and a more normalized (more efficient) movement at the hip.”

### IN SUMMARY

Removing shoes to set the phalanges and feet muscles free can be quite a new experience for both novice and experienced gym-goers. The key takeaway is to adopt an open-minded position and recognize that certain activities whilst barefoot or in minimalist shoes may improve a person’s alignment, balance, gait and stability-mobility relationship. Ultimately, each person should make informed choices about the presence or absence of shoes; the exploration of foot freedom can unleash an entirely new world for fitness enthusiasts. **AF**



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### REFERENCES:

LIEBERMAN, D.E., ET AL. “FOOT STRIKE PATTERNS AND COLLISION FORCES IN HABITUALLY BAREFOOT VERSUS SHOD RUNNERS.” *NATURE*, 463 (JAN 2010): 531-35.  
 MCDUGALL, C. *BORN TO RUN: A HIDDEN TRIBE, SUPERATHLETES, AND THE GREATEST RACE THE WORLD HAS NEVER SEEN*. NEW YORK: KNOFF, 2009.  
 PERROTTET, T. *THE NAKED OLYMPICS: THE TRUE STORY OF THE ANCIENT GAMES*. NEW YORK: RANDOM HOUSE, 2004.  
 ROBBINS, S. AND HANNA, A.M. “RUNNING-RELATED INJURY PREVENTION THROUGH BAREFOOT ADAPTATIONS.” *MEDICINE & SCIENCE IN SPORTS & EXERCISE*, 19, NO. 2 (APR 1987): 148-56.  
 SEKIZAWA, K., ET AL. “EFFECTS OF SHOE SOLE THICKNESS ON JOINT POSITION SENSE.” *GAIT & POSTURE*, 13, NO. 3 (MAY 2001): 221-28.

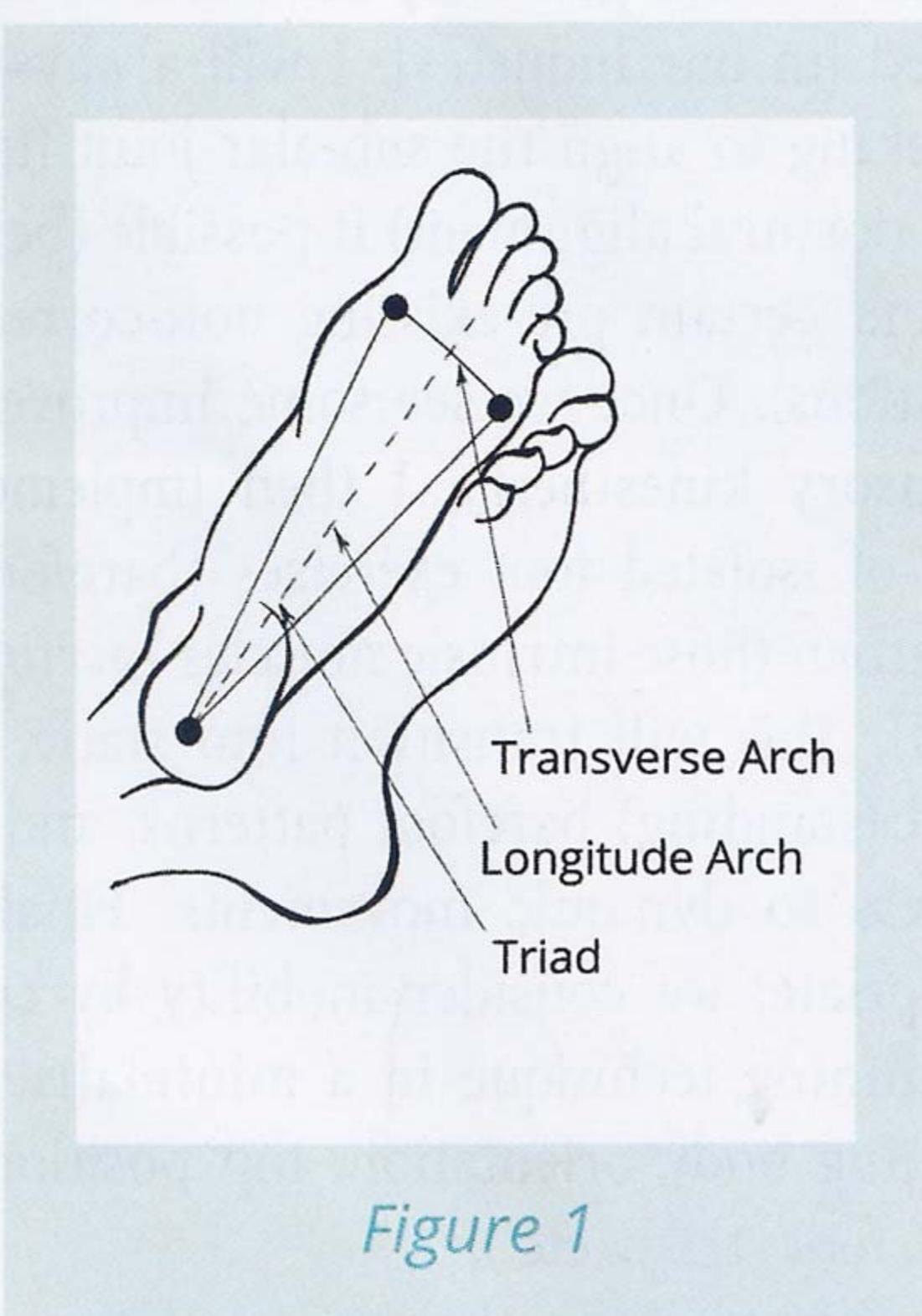


Figure 1





*...being barefoot gives “better contact with the ground, more normal motion in the foot and lower leg, and a more normalized (more efficient) movement at the hip.”*