

When the Foot Hits the Ground...

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In the early 1990s, Karl Muller was a young Swiss engineer who spent time working in Korea and East Africa. He began noticing that his low back felt the best after walking on rice paddies or uneven terrain. With further investigation of the Masai tribe of East Africa, he found that back pain was virtually unheard of among these people.

Fast forward to Helena, Montana, 2007. Back surgery and joint replacements are seemingly now the norm. Most of us probably overlook the fact that we spend the majority of our time on flat surfaces, including concrete, asphalt, and the majority of floor surfaces. The density of these surfaces may also be an issue. Recent studies have shown that people who spend time regularly working on cobblestone also see reduced incidence of several health problems, including back pain.

On a neurological level, when the foot strikes the ground during gait, there is tremendous potential for either anabolic or catabolic activity. Catabolic activity is that which breaks the tissues of the body down when stresses exceed capacity. Anabolic activity can be thought of as therapeutic, thus building a stronger and healthier physique.



It appears that when the foot strikes the ground, there is great potential for anabolic response if the ground surface is uneven. This leads to the stimulation of little receptors in muscles and joints called proprioceptors. When proprioceptors are stimulated correctly, the signals regarding body position are instantly communicated to the brain, allowing for instant neurological response to stimuli (like an uneven surface). The more this occurs, the more the brain and body improve effective communication and neuromuscular control. Improved neuromuscular control leads to a greater likelihood that physical activity is anabolic and healthy.

You have to admit, it feels good to walk or run in bare feet on a wet, boggy grass field. This may feel good because of the stimulation one receives from the terrain. I'd encourage each of you to experiment with this and check if your back and neck feel better following the activity. Another excellent way to practice this is walking on dry river rock. It is common for river rock to be used with landscaping. Even if a bit uncomfortable, try 5 minutes of small step walking on the rock and see the response it gives.

Karl Muller didn't stop with his discovery. He ended up spending almost 10 years developing a sole that could be used with a shoe that would turn a hard, uneven surface into a soft, natural, and uneven one. Today, his soles are the mainstay of Masai Barefoot Technology shoes, which now total over one million pairs sold worldwide in over 20 countries. This shoe, originally designed for rehab purposes, is now commonly purchased by health-conscious individuals to give a little dose of whole-body therapy with every step. ■