

How Shoes Destroy Foot Functionality

Elevated, cushioned, restrictive footwear are a necessary evil—we need them for protection and specialized activity, but they cause atrophy and dysfunction in the feet and throughout the lower extremities. Shoes do not lessen impact trauma, control pronation, strengthen feet, or deliver any performance improvement. These are some of the most health-destructive aspects of shoes:

Elevated heel: Most modern shoes are higher off the ground in the heel than in the midfoot or the toes by 10-30 millimeters; it's called “vertical drop.” This promotes poor posture (loading weight on the balls instead of the heels), weakens and shortens the Achilles tendon, and prompts all manner of compensations throughout the lower extremities.



Excessive cushioning: This promotes an inefficient, jarring, braking, overstriding, heel-strike technique and causes excessive impact forces to be inappropriately dissipated through the shins, knees, thighs, hips, pelvis, and lower back. The cushioning ruins your proprioception, desensitizing you to these harmful forces.



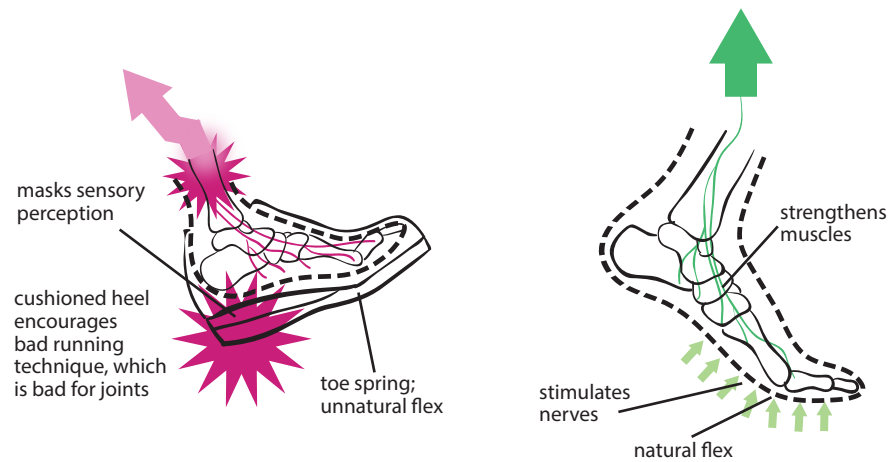
Encased and squeezed midfoot and toes: This inhibits toe splay upon landing, and prohibits the big toe from independently and fully dorsiflexing on each stride. This results in a loss of kinetic energy and a harmful dispersion of impact trauma into the lower extremities. A tight toe box also promotes common maladies like blisters, corns, bunions, osteomas, hammer toes, plantar warts, dermatitis, fungus, ingrown toenails, athlete's foot, and debilitating arthritis and tendinosis.

Excessive arch support: This deactivates and weakens your arches and promotes the extremely common condition of plantar fasciitis. The arch must be allowed to lengthen and flatten in order to absorb impact forces and harness kinetic energy during the walking or running stride



Toe spring: This distinct upward curvature of the sole (typically around 15 degrees), from the midfoot to the toes

is believed to improve performance for fast runners by pre-loading the toes into a dorsiflexed, energy-coiled position. This can also cause atrophy to important muscles and connective tissue in the foot, and to transfer an excessive and inappropriate burden of impact absorption and



propulsion to the highly vulnerable plantar fascia, as well as the hips and knees.

Compromised kinetic chains: The incredibly neuro-sensitive soles of your feet initiate the interconnected movement of various kinetic chains for all manner of fitness and everyday activity—running, jumping, throwing, balancing, etc. Your feet tell your brain how to splay the toes, dorsiflex the ankle, engage the arch, coil the Achilles, bend the knee, rotate the hip, and pump the arms for complex kinetic chain activity. Shoes inhibit neurofeedback from the feet, forcing the brain to piece together movement data in a haphazard manner. This can promote dysfunctional movement patterns and chronic injuries.