

## EXCERPTS FROM

### BORN TO RUN

by Christopher McDougall

“ A lot of foot and knee injuries that are currently plaguing us are actually caused by people running with shoes that make our feet weak... Until 1972, when the modern athletic shoe was invented, people ran in very thin- soled shoes, had strong feet, and had much lower incidence of knee injuries” Dr. Daniel Lieberman, Harvard University

“If you strengthen the foot by going barefoot, I think you reduce the risk of Achilles and knee and plantar fascia problems”

“I once ordered high -end shoes for the team, and within 2 weeks, we had more plantar fasciitis and Achilles problems than I’ve ever seen”

Vin Lananna, Stanford Cross Country Coach, NCAA Cross Country Coach of the Year

“ The technological advancements over the past 30 years have been amazing. We’ve seen tremendous innovations in motion control and cushioning. And yet the remedies don’t seem to defeat the ailments”

Irene Davis, Director of the Running Injury Clinic , University of Delaware

In a 2008 research paper in the *British Journal of Sports Medicine*, Dr Craig Richards of the University of Newcastle in Australia, revealed that there are NO evidence - based studies that demonstrate that running shoes make you less prone to injury.

Runners wearing the top - of - the - liner shoes are 123% MORE likely to get injured than runners in cheap shoes according to a study by led by Bernard Marti, MD, at University of Bern, Switzerland.

In 1988, Dr. Barry Bates, the head of the University of Oregon’s Biomechanics/Sports Medicine Laboratory reported in the *Journal of Orthopedic & Sports Physical Therapy* that as shoes wore down and their cushioning thinned, runners gained more foot control.

E.C. Frederick, then Nike Sports Research Lab stated at a meeting of the American Society of Biomechanics that the more cushioned the shoe, the less protection it provides.

Researchers at the University of Oregon’s Biomechanics/Sports Medicine Laboratory verified that as running shoes got worn down and their cushioning hardened in an article published in the *Journal of Orthopedic & Sports Physical Therapy*, runner’s feet stabilized and became less wobbly. What happens is when you run in cushioned shoes, your feet are pushing through the soles in search of a hard, stable platform.

Steven Robbins, MD and Edward Waked, PhD. said that. "according to our findings, currently available sports shoes ... are too soft and thick, and should be redesigned if they are to protect humans performing sports."

"The de-conditioned musculature of the foot is the greatest issue leading to injury, and we've allowed our feet to become badly de-conditioned over the past 25 years. Pronation has become this very bad word, but it's just the natural movement of the foot. the foot is *supposed* to pronate."

If I put your foot in plaster, we'll find 40 - 60 % atrophy of the musculature within 6 weeks. Something similar happens when encased in shoes.

Gerald Hartmann, PhD

(Pronation is a mild, shock - absorbing twist that allows your arch to compress to adapt to uneven terrain and ease shocks into the lower leg. Pronation is a function of the medial arch. Arches get stronger under stress. To correct over pronation, the arch needs to be stressed to become stronger and still adaptable. the beauty of an arch is the way it gets stronger under stress. The harder you push down the tighter its parts mesh. Push up underneath and you weaken the whole structure. The arch is designed to function like an earthquake- resistant suspension bridge.

Runner's World confessed that for years it had accidentally misled readers by recommending corrective shoes for runners with plantar fasciitis: "But recent research has shown stability shoes are unlikely to relieve plantar fasciitis and "may even exacerbate the symptoms"

When shoes are doing the work, tendons stiffen and muscles shrivel. Feet live for a fight and thrive under pressure. Let them laze around, and they'll collapse. Work them out and they'll arc up like a rainbow.

According to Dr. Paul W. Brand, we could wipe out every foot ailment within a generation by kicking off our shoes. In 1976, Dr. Brand was pointing out that nearly every case in his waiting room - corns, bunions, hammer toes, flat feet, fallen arches - was nearly nonexistent in countries where most people go barefoot. "The barefoot walker receives a continuous stream of information about the ground and about his relationship to it while a shod foot sleeps inside an unchanging environment."

Dr. Paul W. Brand, chief of rehab at the U.S. Public Health Service Hospital in Carville, LA, Professor of surgery at LSU Medical School.

"I think the widespread plantar fasciitis in this country is partly due to the fact that we really don't allow the muscles in our feet to do what they are designed to do".

Dr Irene Davis, as reported in *Biomechanics* magazine

The heel is needed for standing, not for motion.

“ You support an area, it gets weaker. Use it extensively, it gets stronger.... Run barefoot and you don't have all of those troubles. Shoes that let your foot function like you're barefoot - they're the shoe for me.”

Arthur Lydiard, the father of fitness running and the most influential distance-running coach of all time.

When 20 runners were filmed running on a grassy field running barefoot by Jeff Pisciotta of the Nike Sports Research lab, it was found that instead of each foot clomping down as it would in a shoe, it behaved like an animal with a mind of its own - stretching, grasping, seeking the ground with splayed toes, gliding in for a landing like a lake-bound swan. “ We found pockets of people all over the globe who are still running barefoot, and what you find is that during pronation and landing, they have far more range in the foot and engage more of the toe. Their feet flex, spread, splay, and grip the surface, meaning you have natural pronation and more distribution of pressure.”