## For The Love Of Dirt

Scott Hadley PhD, DPT. (\*This essay was originally written as a guest blog post for Saucony in 2011.)

"Getting off the road, into the dirt, and to the heart of what running is meant to be." This is how one of my friends describes trail running. Most trail runners define the sport as running on anything that nature intended people to run on. Historically, the human form evolved - or was designed - to run long distances. According to anthropologists, endurance running is a critical part of human history. And it probably did not include sidewalks...

Research on the mechanics of running teaches us some good reasons to run on trails.

As a scientist, a physical therapist, and a trail runner, here are **5 REASONS YOU SHOULD TRY TRAIL RUNNING:** 

## 1. You can learn better running mechanics.

Research has shown that stride rate increases, stride length decreases, hip and knee flexion increase, and initial contact is made with the forefoot/midfoot when terrain becomes more challenging. If you have spent any time reading about the "new" concepts on running mechanics, it will be no surprise that shorter and quicker steps without a heel strike provides better shock absorption. Trail running helps you do that naturally. And if you can translate that to your other running activities, you'll be a better runner.

2. Uneven terrain is better for our neuromuscular system. Surface inconsistencies in trail running help the muscular system achieve better balance by varying input to the nervous system. Running is a reflexive activity that is largely influenced by muscle

feedback via stretch reflexes. Uneven surfaces provide a variety of feedback to the nervous system, allowing it to maintain optimal muscle balance. With trail running, the nervous system doesn't "get used" to the feedback signals, so muscle activation is more efficient and muscles do not fatigue as rapidly.

3. Hill training improves the shock absorption and **propulsion systems.** Trail running usually involves hills - unless you grew up in the Saginaw Valley like I did ... Research on hill training suggests that running up AND running down hills improves running performance more than running on level surfaces alone. In my clinical practice, I use up-hill running to train the muscles primarily responsible for propulsion - the muscles that push us forward to make us run faster. And I use down-hill running to train the muscles primarily involved in shock absorption. If you can dose in some hill repeats, you'll increase your performance and reduce your chances of injury.

4. Trail running is ideal for Fartlek workouts. What is Fartlek? It is a Swedish word that means "speed play." It was a training technique designed in the 1930s by Swedish national running coach, Gosta Homer. Tired of timing runners around a track, he decided to let them run wild on cross-country courses, speeding up and slowing down with their body's natural rhythms. The general idea is to run at a pace faster than you would in a race until you feel you have pushed enough. Then you slow down. It's a very mindful way to increase your speed and endurance, requiring you to constantly monitor your body's responses. One of my friends says she feels like Fartlek workouts allow her to be gracious to herself - when she is tired of running at 3/4 speed, she slows down to a gentle trot while she recovers. A combination of short sprints, middle distance intervals, slow recoveries, and lots of variety is what makes Fartlek fun and effective - especially on trails.

**5. It just feels good!** Here is what some of my running friends said when I asked "Why run on trails?"

"I like the more primal feel of being out in nature! To run fast through the trees is loads of fun:) I like that it works different muscles and challenges me to be graceful and work on my balance. It's so much harder than road running so that challenge is exciting and humbling as well!"

"Trail running is more engaging; more taxing. Not just physically but mentally too. I like the fact that my body has to work harder to deal with the uneven terrain, but also the fact that I do have to be mindful of where I'm going. On the roads you can generally zone out, but if you do that on a trail, you are literally on your bum!"

"I like the alone time, no people, no cars; you know, all the things you like to get away from sometimes."