

The (In)Sole Advantage: How Blumaka Insoles Propel Elite Distance Gains on the Course

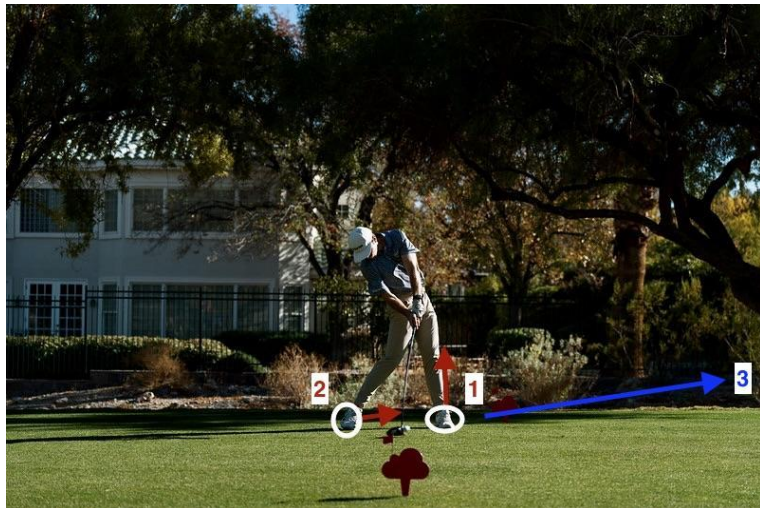
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Sports have become increasingly speed driven in recent years. In baseball, pitchers throw faster; in tennis, players serve harder; in football, wide receivers cut sharper. Speed often feels like a classic display of peak human performance, and we'll do anything we can to market, develop, or optimize it. Golf is no different from the rest: equipment is geared towards speed, training programs emphasize speed, and no feeling quite compares to connecting to a driver when your peers are there to see it. Elite speed is a trait that can separate professionals from the rest, but it can also entice new, less experienced athletes to participate in a game that carries a special meaning to so many of us.

My relationship with speed has always been mixed. I struggled at first with pursuing speed just for the sake of swinging harder with my arms; golf is a game that demands high level precision, so sacrificing timing of joint and muscle movements for upper body speed felt like it came with more downside risk than anything else. However, I eventually came to understand speed as a coordinated effort, and the elite athletes outside of golf who separate themselves are almost always the best at generating force from the ground and transferring it up the kinetic chain to where it's needed. For golfers, that's the club. The more efficient we are at generating ground force and *coordinating muscle groups and movements* to move it up the body and deliver it to the club, the more the ball pops off the face.

Obviously, force generation is a process. It requires generating force at the ground – think of how lengthening your muscles during a jump propels you upward. Preserving your contact force with the ground (i.e., external traction) is what allows you to jump close to your maximum height, which varies given your current physical abilities. If you lose external traction, you don't jump as high because the resultant ground reaction force is lower. The same holds true for the golf swing; anytime

our shoes slip, we immediately notice the reduction in swing speed due to energy loss during the motion. External traction is part of what makes shoe selection important, but treating the foot and shoe as a unified system may oversimplify the process. No shoe fits perfectly, and more often than not, the insole/sock combination within the shoe can lead to inefficiencies in energy transfer that increase long-term injury risk and reduce how much speed is transferred to the ball.

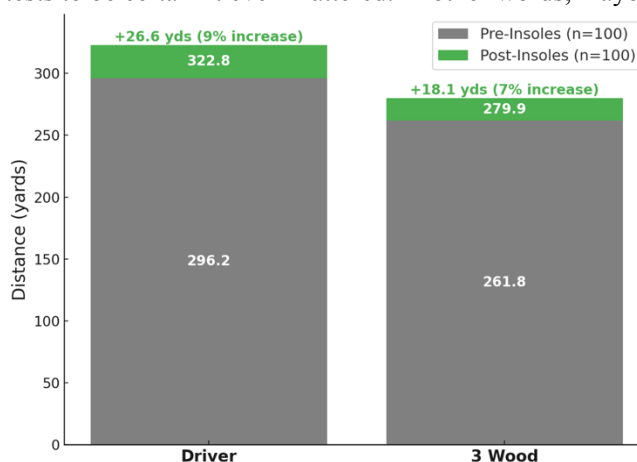


For me, that's why Blumaka caught my attention. I first learned of the non-slip performance insole company in the spring of 2023 while working as a player development associate for a baseball organization, which was a part of my PhD in Bioengineering. Naturally, my first thought was about how that would impact my golf game – at the time, I was a retired Division I college golfer who couldn't shake the endless pursuit of

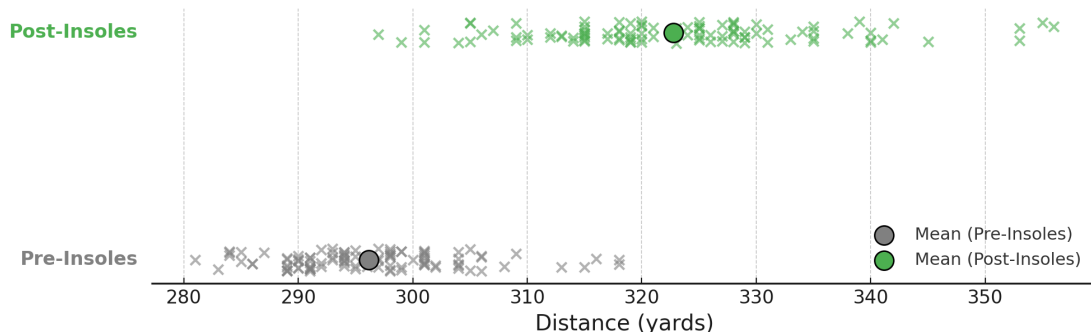
better, even while studying a different sport. When I was much younger, I learned the golf swing as a rotational move that generates leverage and power via interaction with the ground surface, and that eventually guided my physical training when I was old enough to do so. If I can generate more linear and rotational force from the ground, everything else improves with it: distance, accuracy, fluidity of the swing, etc. The *hardest* place to preserve that ground surface interaction is out of the sand, yet baseball hitters had found something that clearly boosted power while making a shorter swing off dirt. How could I not try?

My goal was to determine if putting the non-slip insoles in my shoes led to a legitimate distance increase. Since I was a young, unencumbered scientist-in-training, I collected some data to run an experiment, using an on-course game tracking technology to provide objective feedback. The game tracking technology allowed me to capture the distances from my last 100 shots with each club prior to using the insoles (from February and March of 2023), as well as the first 100 with them (from April and May 2023). All distances were adjusted for weather (e.g., temperature, wind) and altitude using the technology's proprietary algorithm, and I manually stored them in a spreadsheet. To keep things simple, I limited the analysis to driver and a 14.5-degree 3 wood (tee shots only), as those clubs more quickly accumulated the requisite number of shots; however, over time I was able to observe changes for all irons as well.

Truthfully, I expected this difference to be marginal at best – perhaps noticeable on the surface but still requiring one of those graduate school statistical tests to be certain it even mattered. In other words, maybe a couple yards off the tee, and a yard or two with irons. Just enough to boost the ego a little bit. Instead, I started knocking the cover off the ball; it was a “no doubt” distance increase, to steal a phrase from the baseball world. The results showed unequivocal distance gains with the Blumaka non-slip insoles, reaching almost 9% with the driver and 7% with the 3-wood. In the first 100 shots with the insoles, my driver distance increased from an average of 296 yards to 323, and my 3-wood jumped from 262 to 280 yards.



It wasn't just that I felt more stable and connected to the ground; I also felt free to *swing harder*. The insoles create an athletic feeling in the foot that combines elasticity and stability, leaving me primed to swing at full speed without compromising balance or control. People often comment on the power and athleticism in my swing, but that has become more pronounced in the last two years. The change to my movement was so positive that I added Blumaka insoles to my gym shoes too, recognizing that I wanted the same feelings during training that I get on the course. I focused even more intently on explosiveness, adopting some of the training regiments that I was observing in elite baseball pitchers and hitters while working on my PhD. Training in the same insoles I used on the course helped improve my movement quality during workouts, and I believe this translated to better, more explosive swings on the course. I eventually reached the point where I hit my irons one club longer (e.g., a 9 iron as far as my previous 8 iron), but data collection for those clubs coincided with more sophisticated training and hence are not included in these results.



It's worth noting that since this analysis was limited to myself, there is the possibility that my ability to use the ground predisposes me to more distance gains with the insoles. However, for the general player, there is almost no downside risk to trying them if the goal is to gain distance, and they are bound to be far more durable than any other insole that may be in your shoes. Prior to using Blumaka, I had to change insoles 4-5 times per year because of the countless miles and swings logged during a season – I'd always create holes under the balls of my feet. I also struggled with nagging injuries in my right foot (e.g., turf toe) late in my college career due to how I used the ground, which completely disrupted my swing mechanics. Now, however, Blumaka insoles last me an entire season, and I believe my feet are healthier despite sustained high workloads on and off the course.

I became more attuned to the magnitude of these distance gains when I played in a Pro-Am through First Tee in December 2024. The hole with the long drive competition was our third of the day, and I launched a power fade that tracked the fairway for over 330 yards before landing and rolling out to 359. Later on when we were on a neighboring hole, I watched a PGA Tour player walk up to the sign with my name on it, stop, and ask: “Who the heck is Connor Moore?” I figured that was coming, but I still had to laugh. The ball wasn't remotely close to where anyone else would hit it. It's not as if I stood out before the event with a particularly assuming physical presence, and that makes for some entertaining remarks anytime I hit a driver for the first time around new people. But for what it's worth, I don't really like to flex my speed. It's not really who I am as an athlete, and my preference is to stay under the radar. I've always felt that the best athletes are exceptional at finding the subtle, hidden advantages that set them apart. For me, the Blumaka insoles have been my hidden advantage, literally – and they've transformed the way I play, ultimately bringing me closer to my potential on the course.