GOLF MONTHLY

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LONGER DRIVES EVERY TIME

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ONE STEP AHEAD

Joel Tadman looks at the biomechanical theory behind Under Armour's new footwear designs

Jordan Spieth was setting the world of golf alight in 2015 wearing a pair of Under Armour golf shoes no one in the UK could find or purchase. It was this prolonged intrigue and perhaps frustration that made the eventual entry of Under Armour into the UK golf shoe market all the more exciting. But it's not just the Drive One model that has reached our shores. There are three Under Armour golf shoes here this year and it is the Tempo Tour that is stealing all the headlines.

Why? This is the company's best performing, most technical golf shoe and we were invited, along with Top 25 Coach Rick Shiels, to the European Tour Performance Institute at Terre Blanche in the south of France to see it and test it. Here we met Jean-Jacques Rivet, a biomechanics expert whose roster of tour player successes is far too lengthy to list but includes the likes of Lydia Ko and Byeong-Hun An. Suffice to say, what he doesn't know about golf biomechanics isn't worth knowing.

JJ Rivet was consulted to work with Under Armour in designing the new Tempo Tour and Tempo Hybrid golf shoes. They built them from scratch and focused on optimising the foot's position biomechanically, allowing it to absorb force during the motion of the golf swing and to use the ground more efficiently.

Biomechanics expert JJ Rivet helped design the Tempo Tour

Stepping inside the lab

The equipment JJ has at his disposal is mind-blowing. Everywhere you look – be it in the testing bay or his laboratory – there is a piece of kit that will monitor an area of your body's movement during a golf swing, and the foot plays a vital role in that.

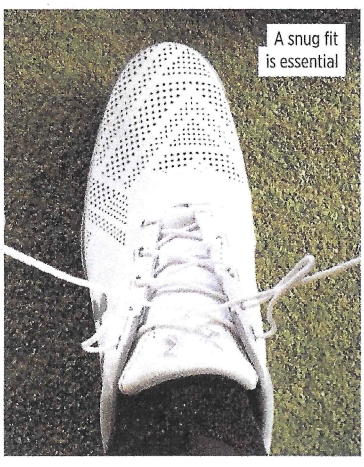
"First of all, the skeleton must be in correct position to work with the force of gravity," JJ explains. "It must be in its natural physiological position and this comes from the foot, specifically the 'calcaneus' or heel bone. When this is positioned correctly inside the shoe, the sensors in your body can adapt better to any imbalance during your swing and you are therefore more stable, meaning you can apply force to the ground."

Hendrix bar

Another big focus of JJ and the Under Armour team was the Hendrix bar, which runs from the heel of the foot to the second toe. When the body's weight is moving on this bar, every type of body rotation can be controlled and it is easier to create disassociation between the upper and lower body – an essential movement in the golf swing. By locking the heel in the correct place, you optimise the control of the foot so the force applied will stay on this Hendrix bar as desired.

After some mobility tests, we stepped out on to his testing bay and hit some shots wearing the shoes.

"THE GOAL IS TO LOCK THE HEEL IN THE CORRECT POSITION"


A snug fit is essential

Using force plates we could see where the feet applied pressure to the ground at various parts of the golf swing, and how this varied slightly between the cleated and spikeless models. I have a narrow midfoot and JJ showed me a new way to lace my shoes that creates a tighter fit in this area (left). Straight away I was applying more pressure to the ground and moving my weight more efficiently. What is clear is the vast amount of thought and research that has gone into this shoe design. They are worth your consideration, for sure.

Joel Tadman is *Golf Monthly* Technical Editor