

# Velo Atelier Bike Fitting Session

Harley and Darcie Taylor

*We followed Profile Racings Factory World Team member Harley and Darcie Taylor on their visit to Velo Atelier Bike Fitting Session, see how they got on.*

“We first got the idea of doing bike fittings for BMX after doing some work with a downhill mountain biker who was getting repeated knee pain using flat pedals. Having a little history with BMX racing, (I used to manage the Pashley team before going on to found Hidden Nation), I understand the specific biomechanical requirements of BMX racing.



Obviously bike fitting is normally more associated with road bikes, but the more people that we see in our studio, the more obvious it is to us that anybody riding a bike can benefit from working with a knowledgeable

fitter.

Fundamental to our Clinical Bike-Fit™ protocol is getting the feet

*Related Articles*

properly supported, as your key contact point with the bike. Your feet are the start of your biomechanical chain, which runs all the way up to neck. With BMX you only really use two contact points, the pedals and the grips, so it's even more important to make sure you optimise how are you interact with these points.



We set about modifying our normal protocol to make it more relevant for BMX. At the [Velo Atelier Studio](#), we are partnered with [Core Health and wellness](#), no strangers to BMX and cycle sport themselves, after treating such riders as Scott Beaumont. This allows us to combine efforts and look at not only the bike but also the body and optimise both at the same time.

When Harley and Darcie Taylor from the Profile Racing team came to see us, we were interested to see how much difference our protocol could make to their season. Harley is just coming back from injury and was keen to get back to training at 100%.



We started the process by sitting down and discussing their current training plans, goals and injuries/ discomforts. This is really important to get an idea of how what they do on a day-to-day basis affects their bodies. It also lets us start to build a profile, which helps us identify where injuries or aches and pains might be coming from.



Then we needed to take a good look at their range of movement and how their bodies are currently working. We pop next door to the Core clinic to meet Jennifer Disney, one of the key physios we work with. Jen put Harley and Darcie through a series of tests to check their flexibility, strength and range of movement.



They were then introduced to the DIERS machine, one of only a couple in the UK, which allows us to look at their spine alignment without an X-ray, whilst they are standing up rather than lying down. By introducing small pads under alternate feet it's possible to accurately see if there are any leg length differences.

With the physical testing done Jen brought Darcie and Harley back over to the studio. We then got stuck into looking at their interactions with the bike. Firstly looking at their feet and how ankle stability affects their knee movement. In a sprint sport like BMX it's crucial that every ounce of power go straight to the pedal.

### *Related Articles*





On both Harley and Darcie we could see that we needed to stabilise their feet inside their shoes and also alter their cleat positions. To do this we moulded some custom insoles for them and moved their cleats to suit their foot structure.

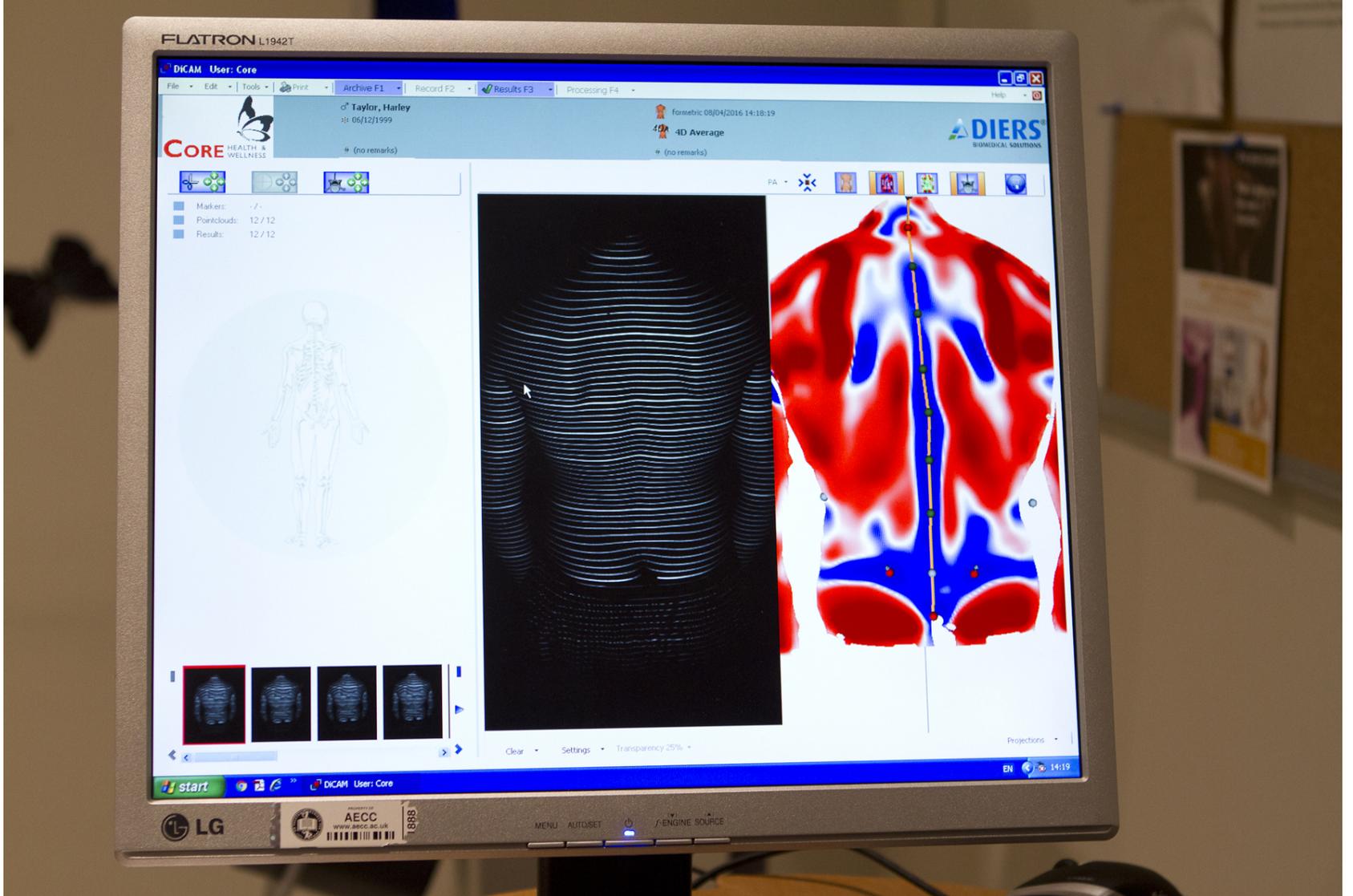


Once this was done we put Darcie and then Harley on our adjustable bike and got them pedaling easily. Whilst doing this, we videoed them from the front and measured the pressure movement on the saddle. This allowed us to see if they were pedaling asymmetrically or if they were favouring one side or the other. This can be an indicator of pelvic twist. Given that the power from your legs is generated in your glutes, your pelvis works a little like a car chassis. You're potentially losing power if it twists.

With another small adjustment to their cleats and the addition of a wedge or two, we could see on the dynamic video analysis that the pedal strokes were nice and straight with symmetrical power output. Perfect for fast cadence spins!



Jen had also noticed that Harley had extremely tight hamstrings, so she gave him some specific exercises to help to reduce this tightness. On the bike this helps the pelvis rotate forward slightly, which will help Harley engage his glutes more efficiently. This, along with the new symmetrical pedal stroke and fully supported feet, should allow Harley and Darcie to create more explosive power and maintain it for longer.



The process would be just as relevant to people running flat pedals. Street and trail riders, who are using their legs to pump or soak up big landings, would also benefit. If the foot isn't correctly supported then that will affect the knees, pelvis and back.



Once Harley and Darcie have had a little time to adapt to the changes we made in the first session it will be time for them to come back for treatment with Stefaan Vossen, the founder and lead clinician at Core health and wellness. At the Studio we will also be looking at how we can smooth out the pedal stroke to provide better power transfer, whilst also looking at what we can do to help them speed up recovery between Motos.”





*The team from Velo Atelier and Core will be at the BMX Talk/Profile Racing tent over the coming national weekend in Birmingham, so if you have any questions for them don't forget to pop over and say hi.*

I thought it was a sick day, learnt a lot about the way the body works and how to make it more efficient, had a set of custom insoles made to maximise efficiency which is always a positive! Would just like to say a huge thanks, it is much appreciated and I can already feel a lot a lot of difference!

Harley Taylor

It was an unreal experience to be able to watch the basic things being done to your body! Just to know that your body is different and can be fixed! Would love to say a huge thanks, and I think you should check it out!

Darcie Taylor



## **Newsletter Terms & Conditions**

Please enter your email so we can keep you updated with news, features and the latest offers. If you are not interested you can unsubscribe at any time. We will never sell your data and you'll only get messages from us and our partners whose products and services we think you'll enjoy.

Read our full [Privacy Policy](#) as well as [Terms & Conditions](#).

*Cookies help us deliver our services.* By using this website, you agree to our use of cookies. [Learn More](#)

**Accept**