

# RETÜL FAQ

## What is Retül Bicycle Fitting?

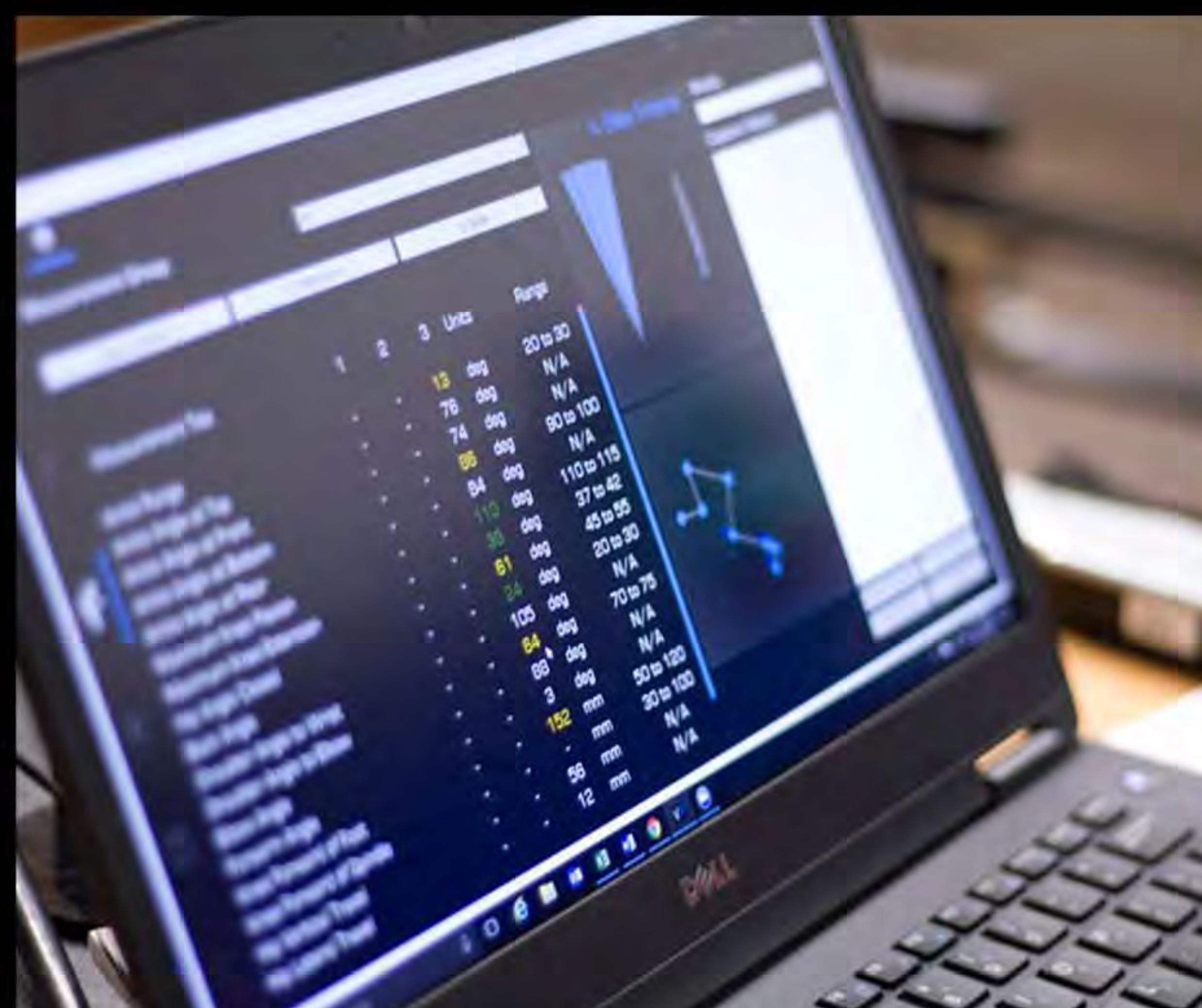
Does biking give you pain in the knees, lower back, or hips? Have you ever wondered what Retül Bike Fitting is? Think it's only for serious cyclists? It's not! Anyone can get fitted for a custom size bike. Here are a couple FAQ's and their answers about Retül Bike Fitting, and why it is an important part of being a cyclist, whether you are racing, or riding recreationally.

## Why focus on bike fit?

A proper bike fit is essential for optimal performance, efficiency, injury prevention, and comfort on the bike, and will provide a rider with the most economic means of expending energy. A proper bike fit will also prevent pain that is common in the knee, hip, and lower back, particularly with riders who are trying to adapt their bodies to the bike they already have purchased.

## What is unique about the way Retül does bike fitting?

Retül uses a cycling specific 3D motion capture system that reads and records all three planes of a rider's movements while he or she is pedaling on the bike. This type of data reflects how a rider actually rides a bike and cannot accurately be captured with 2D video, static fitting, or eyeball fitting. Retül's dynamic fit tools allow a bike fitter to make fast and easy adjustments to a riders position using objective and highly accurate fit data to guide the changes.



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## Is Retül effective for different types of riders?

**Bike fit decisions should be made while considering the individual goals, biomechanics, strengths, and limitations of each rider. From professional athletes, to competitive age groupers, to recreational riders and commuters, every cyclist will benefit from a proper bike fit. Retül tools and technology can be applied to road, mountain, and TT/tri riding positions.**

**The Retul motion capture system was developed with professional racers and the best bike fitters in the world and now we bring this revolutionary fitting tool to you! With Retul's 3-dimensional motion capture technology, we can dial in your bike fit to sub-millimeter tolerances. By allowing you to continuously pedal your bike in a trainer, the Retul system lets us see exactly what you're doing as you ride. Retul makes our bike fitting process faster and more precise so you can be riding at your best, sooner!**

**With our knowledge of biomechanics and kinesiology as it applies to cycling, the Retul system enhances our dynamic bicycle fitting. After asking you about your cycling goals, assessing your individual biomechanics, and letting you warm-up on the trainer, we place 8 markers atop anatomical landmarks (see illustration), along one side of your body that will be used to analyze your full body movements while riding your bike. The small Retul wiring harness is then attached to these markers and information about your riding is sent to the computer. The harness uses tiny LED lights that flash 42 times per second to send data to the sensor.**

**This data is interpreted by the computer and gives us critical information regarding how you ride. For instance, we can see all of the different knee angles throughout your pedal stroke. And even though the lights may appear to be in one plane, the sensor is able to capture tiny lateral movements, such as a knee wobble, during the pedal stroke that tells us how your body is moving in three dimensions. We then repeat this process on the other side of your body to find any asymmetries between sides. By analyzing the information captured with the Retul system, we can make appropriate changes to your bike fit, both large and small, to make you more comfortable, more efficient and faster, too!**

**And, once we have your final position dialed in your bike, Retul allows us to keep that information in a convenient 3D digital record so we know exactly how to set up any bikes you may purchase in the future. Just as important, with Retul we can quickly and easily compare your past and present bike fits as both your body and your cycling needs change over time.**

## How can I get a bike fit?

**Schedule an appointment at Free Flight! Plan to bring your own bike, comfortable clothing, and allow two hours for fitting. Call Free Flight at 563-582-4500 or email [brian@freeflightbikes.com](mailto:brian@freeflightbikes.com)**