

Bike Sizing vs. Bike Fitting & Fit Formulas

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What is the difference between being “sized” for a bike and being “fit”? Some people talk about “sizing” new bikes and others have said that I should be “fit” to my new bike. Are they saying the same thing?

Tristan

Tristan,

You have hit upon one of the most important distinctions in bike selection – the difference between a bike “sizing” and a “fitting”.

Being “sized” for a bike generally refers to using general “rule(s) of thumb” or formulas to choose a size in a given bike model. A bike “sizing” is the cycling equivalent of buying kitchen cabinets before designing your kitchen. Without proper planning, you will have to try to make the cabinets fit into the space and there will be compromises.

“Sizing” based methods are often used to buy and sell bikes via the internet and by shops who do not have a firm commitment or understanding of fitting. A bike sizing usually takes under half an hour and can consist of as little as seeing if the rider has stand over clearance over the top tube or (at the most) taking some basic body measurements and then selecting the bike size based upon this. A “sizing” is limited in scope and does not take into account important individual rider based variables or even whether the bike is even offered in a frame geometry that is suitable to your needs. The end result of a “sizing” is that the rider must do their best to adapt to the limitations and constraints of the model that is chosen. Despite these substantial limitations, the vast majority of bikes, even high-end bikes, are bought and sold by “sizing”.

A “fitting” is an entirely different process. A “fitting” is the cycling equivalent to designing your new kitchen to first meet the needs of the chef (you) and the space best and then selecting cabinets that you know will work. A “fitting” puts the needs of the athlete (you) first. It eliminates the guesswork as to what bikes and products are the best matches by building your riding position first and then using that information to help you consider only those bike models that will actually fit you well.

You need to be cautious as the terms “fitting” and “sizing” are often used interchangeably and some dealers advertise “expert bike fitting” when they are really providing bike sizing. It pays to learn more about the process any dealer uses before you buy. If the shop says their “fitting” or “sizing” takes under an hour, be skeptical. If the fitting is “free” with purchase, be skeptical. If they recommend stock bike models or brands before talking about how the bike fits, or if they make you buy the bike before your “fitting”, be even more skeptical. A comprehensive fitting with a professional should take a few hours and, at the least, should consist of a detailed

interview with you followed by assessments for physical proportions, range of motion/flexibility in key muscle groups, biomechanical alignment assessment and a dynamic session with you on an adjustable fitting bike like the Serotta Size Cycle. Professional fitting services usually run \$200-\$400 and the methodology and information provided can range immensely. You tend to get what you pay for with bike fitters so you should interview any fitter you are planning on working with and do not shy away from traveling to work with a reputable fit specialist - it is that important.

While “Sizing” tries to fit the rider to the bike, a professionally “Fit” bike fits the bike to the rider. A subtle, yet very crucial, difference. A comprehensive fitting with a qualified professional is usually the most important step in the bike buying process as it eliminates the guesswork and guarantees that you will find a bike that is truly going to work well for you. That is truly an investment in your comfort and performance that will pay off not just during this bike purchase, but for as long as you ride and buy bikes. Shop carefully and ride smart.

Ian

Fit Formulas:

After reading a magazine article about bike fitting that listed out measurements and things to check to see if my bike fits well, I made some changes to my set-up. These changes included lengthening the stem so that the handlebar blocks my view of the hub when riding and placing my heel on the pedal when it is at the bottom of the stroke to set saddle height. I'm pretty sure that I followed the formulas properly, but I feel stretched out in this position and my lower back hurts. Am I doing something wrong?

Keith

Keith,

You are finding out what many before you have discovered - General positioning suggestions and measurement based “fitting” systems and formulas are based almost purely in anecdotal evidence and thus are inconsistent at best. These systems often have little to no scientific basis and often ignore the individual rider's needs completely by assuming that all riders are alike and have the same capabilities, riding technique and experience. The items you have listed (handlebar blocking the hub axle and placing the heel on the pedal) are some of the many “old wives” tales of the bicycle fitting world. These formulas are often based in what worked for a successful pro rider instead of being based in individual biomechanical reality. For example, Greg LeMond rode very successfully with his saddle much further back than average. It was soon printed in fitting and coaching manuals that this laid back saddle position was the best place to ride as LeMond's results were so strong. What often failed to be mentioned was that LeMond had longer than average femurs (upper leg bone) and thus his knee sat further forward in relation to the pedal than average; what was “reasonable” for LeMond was not really the norm. Not surprisingly, many people suffered from knee, hip and back issues when riding this way.

There are always “quick fixes” and “magic formulas” being presented as they try to simplify a complicated subject – the human body in motion. I’ve yet to find a formula that is consistent and accurate enough to be used universally and thus do not recommend using them. Positioning on the bike is a dynamic process that is as individual as the people who ride. Any solid fitting protocol must take this reality into account to provide consistent and reliable results. The best way to take the guesswork out is to work with a qualified professional fitter as it is their job to know what works and why and will be able to explain it in easy to understand terms.

Enjoy the ride and train hard and smart!

Ian