Stance Width—and Why it’s Important

What is “Stance Width”? Stance width is a combination of two essential measurements: “Q-Factor” is the distance between the outside face of your crankarms, and “spindle length” the distance from the crankarms to the center of the pedal body (fig. 1).

Stance width is important for a proper pedal stroke. The hip joint is designed for walking, where the feet stay in line with the rest of the leg. Cycling has a toe-in position where the feet are less than shoulder width apart. Many crank manufacturers make Q-factor as narrow as possible for improved aerodynamics and benefits to bicycle’s design—they don’t address the rider’s interface with his or her bicycle. This can be problematic for a rider’s overall bike fit.

When a rider’s stance width is either too wide or too narrow, the rider’s knees will have a tendency to track either inward or outward at the top of the pedal stroke (fig. 3 & 4). This can cause issues with joint pain and decrease the efficiency of power transfer throughout the pedal stroke.

Proper stance width keeps knees happy and power transfer efficient. iSSi interchangeable spindles provide cyclists with multiple spindle lengths in intermediate increments—for comfortable and efficient pedaling no matter how long the ride.

Note: Consult a bicycle fitter before changing spindle lengths. Many bike shops have fit experts that can assist riders in finding the perfect spindle length for each leg, along with proper bicycle fitting adjustments. Don’t self-diagnose, as you may exacerbate the problem!