

Wheel Werks

Women's bicycle fit observations

Over the many years of fitting bicycles to women I have notice some consistent concerns and general set up constants for women.

I look at the body as levers and rubber bands. Your bones are the levers and the muscles are the rubber bands. In a bicycle fit we need to place the levers in the most mechanically efficient positions that the rubber bands allow us.

First concern is most women always want to move farther back on the saddle to relieve pressure off the front of it. Second the reach is too far and pressure on the hands and neck are high. As a general rule woman have a longer inseam and shorter torso than men in ratio. As an example I have sold many tandems to couples and the husband might be 6ft and the wife 5ft 6inches and the inseam can be the same or very close. But with women the ratio of femur to lower leg is about 60% to 10% versus men at 50/50%. So if you look at the bones as levers the women generally wants to sit farther behind the pedals so they can sit on the wide portions of the saddle and their sit bones. This also allows the femur to be a great lever to produce power and allows them to sit stable on the seat. Now with a shorter torso and arms when they reach for the handle bars the reach is long and low. So for a good fit we need to shorten the reach and bring the bars up. This will take weight off the hands and neck. Many women specific bikes promote short reach to the handlebars, but they do that by moving the seat tube, which is what the seat is mounted too, forward and closer to the handlebars. This just rolls your hips forward and down in to the front of the saddle causing pressure. This is easy for manufactures to make since it leaves the front center long. This is the distance from where your pedals spin on the crank to the center of the front wheel axle. If they make this short your foot can over lap the wheel at slow speeds and they try to avoid this. This only would happen in a parking lot situation since at speed you lean the bike. Good bike builders work with different angles and wheel sizes to correct this and put you in a comfortable and powerful position.

There are many different width and reach handlebars which can help greatly with fit and the reach to help this situation. Many times people try many different saddles to no avail when it is just getting the right position of the body angles.

Below is a primer on how your body acts on the bike when positioned properly.

Good positioning on the bicycle comes down to good posture, just like your moms said don't slouch. Think about when you get out of a chair or go to shoot a basket, you roll your hips forward. This activates the gluts and quads, the most powerful muscles in the body. If you sit on the bicycle like we tend to sit in a chair, which is slouching, you won't produce power and it causes many aches and pains because the hips are rotated back.

With the hips rotated forward your spine is in line with your lower back, not acting like a hinge and allows the neck to be in line with the spine and not in extension. When the hips are rotated forward it activates the gluts and quads along with extending the spine so the ribs are not folded over into the stomach which would cause you not to breathe fully. This allows the neck to be in line with the spine and not in extension which then allows the neck muscles to just hold the head up, not also being used to steer the bike. This allows the lats to handle the steering. You also need strong core muscles to ride efficiently. When you push hard with your legs into the pedals the force is being supported against core muscles. Imagine if you try to push a box forward in the middle of a room with your legs it's hard as you have no support. But if you put your back against a wall and push you have much more power and control.

From the examples above if you have tight hamstrings and hip flexors you will not be able to rotate the hips forward to produce good power, breath well and take load off the neck. If you have weak core muscles you are not stable to push hard and have control. This shows the importance of a good core and stretching program. As much as we might want to ride another half hour it is probably more beneficial to stop and work on these areas.