

# Optimal cycling involves properly fitted bike, flexibility

By Kathryn Reed

Cycling is so much more than pedaling. To do so efficiently and without injury takes a bit of understanding about how ones body relates to her bike.

That was the message Jason Collin, physical therapist with Tahoe Center for Orthopedics, dispersed Wednesday night.

Besides being a PT, Collin has been a professional bike fitter for the past eight years. While the average rider may not go through all the testing Lance Armstrong did that resulted in changing the seam on his outfit for better aerodynamics, there are things people can do to reduce injuries from occurring and to improve performance.



Physical therapist Jason Collin demonstrates flexibility tests for cyclists.  
Photo/Kathryn Reed

"I don't fit people without cleats," Collin said. "You can't get it dialed in."

With 30 percent of the power, on average, from cycling being from the pulling motion, that is lost without cleats.

"In the relationship between bike and rider, the flexible one has to be you," he told the group of nearly 40 at Lake Tahoe Community College. "That is why you need to make sure your bike fits."

Coming from Southern California a few years ago, he thought working in South Lake Tahoe would mean dealing with a lot of mountain bikers. He doesn't know why, but this mountain biking community isn't big into getting their bikes fitted.

While he didn't go through the whole process of an actual bike fitting session, which can last two hours and costs \$100 or \$199 depending on the level of detail, he did explain what it's like.

Colleague Chris Kozłowski was his model of sorts as she allowed Collin to manipulate her leg to test her flexibility in her hip and leg muscles, as well as to see if both legs are the same length.

Posture, biomechanics, flexibility and strength of the rider are assessed before the bike is even considered.

A tight hip might be detected. While this is common in most cyclists, it's even more predominant in woman. It's also linked to women's increased ACL problems. When it comes to cycling, if the knee tends to go out, this is an indicator of a tight hip.

Collin is a proponent of exercises and stretches that are relevant to the motion of the sport the person participates in. During individualized assessments the therapists suggest strengthening activities and stretches applicable to cycling.

With all the power in cycling coming from how the body transfers movement to the tiny pedal, it's important the ball of the foot is on the pedal and the rest of the leg properly lined up. Knee issues are the common injury when from foot to hip the alignment is out of whack.

While being in alignment is ideal, that may not be possible at the get-go based on how the rider's natural alignment is. Forcing a straight alignment by altering the bike could lead to injury.

That is why the process is so individualized. And getting fitted for a road bike will not mean the same measurements will work on your mountain bike. The same goes for triathletes. They are all different sports.

When it comes to adjusting the seat the most common situation is to find people riding with it too low, Collin said. And sometimes it's too far forward because people want to sit up straighter.

But creating a stable platform, as he calls it, will create power.

The place where more subjectivity comes in is with the handlebars, or cockpit of the bike. People complaining of neck, wrist and low back pain when cycling may need this part of the bike adjusted.

Much of this adjustment is about comfort.

For more information about a fitting, call (530) 543.5896 or click bike program.

This is one of a series of free lectures Barton Health has put on throughout this year. There are three more scheduled to date in the Wellness Lecture Series.