HEALTH & FITNESS

Inconvenient Design Creates a Delicate Drawback to Cycling

By JOHN TIERNEY

Like most cyclists, Robert Brown at first didn't see any need to switch from the traditional saddle on the mountain bike he'd been riding full time for five years on patrols for the Seattle Police Department. When researchers at the National Institute for Occupational Safety and Health and Safety offered new noseless saddles intended to prevent erectile dysfunction, he quickly told his supervisor, "No problems here!"

Then, after trying the new saddle, he felt the difference. His weight rested on his pelvic bones instead of the crotch area, which formerly pressed against the saddle's nose. During his sleep, when he wore a monitor, the measure known as "percent of time erect" increased to 28 percent from 18 percent.

The results made him permanently switch to a no-nose saddle, as did most of the other bike-patrol police officers in Seattle and other cities who took part in the six-month experiment. But they've had little luck converting their colleagues, as Mr. Brown complains in the current newsletter of the International Police Mountain Bike Association.

"The subject matter always draws juvenile chuckles," he writes. "They don't even listen long enough to understand what part of a man's anatomy is being protected here."

It's the area of soft tissue called the perineum, and it's not just a male problem — female cyclists have also reported soreness and numbness in this genital region. But neither sex seems interested in these saddles, and I'm as baffled as Mr. Brown is by their apathy.

Why, if you had an easy alternative, would you take any risk with that part of the anatomy? Even if you didn't feel any symptoms, even if you didn't believe the researchers' warnings, even if you thought it was perfectly healthy to feel numb during a ride — why not switch just for comfort's sake? Why go on crushing your crotch?

When I tried a no-nose model for my 26-kilometer daily commute, it was so much more comfortable that I promptly threw away the old saddle. But over the years I've had zero success persuading any other cyclists to switch, even when I quote the painfully succinct warning from Steven Schrader, the reproductive physiologist at Niosh who did the experiment with police officers.

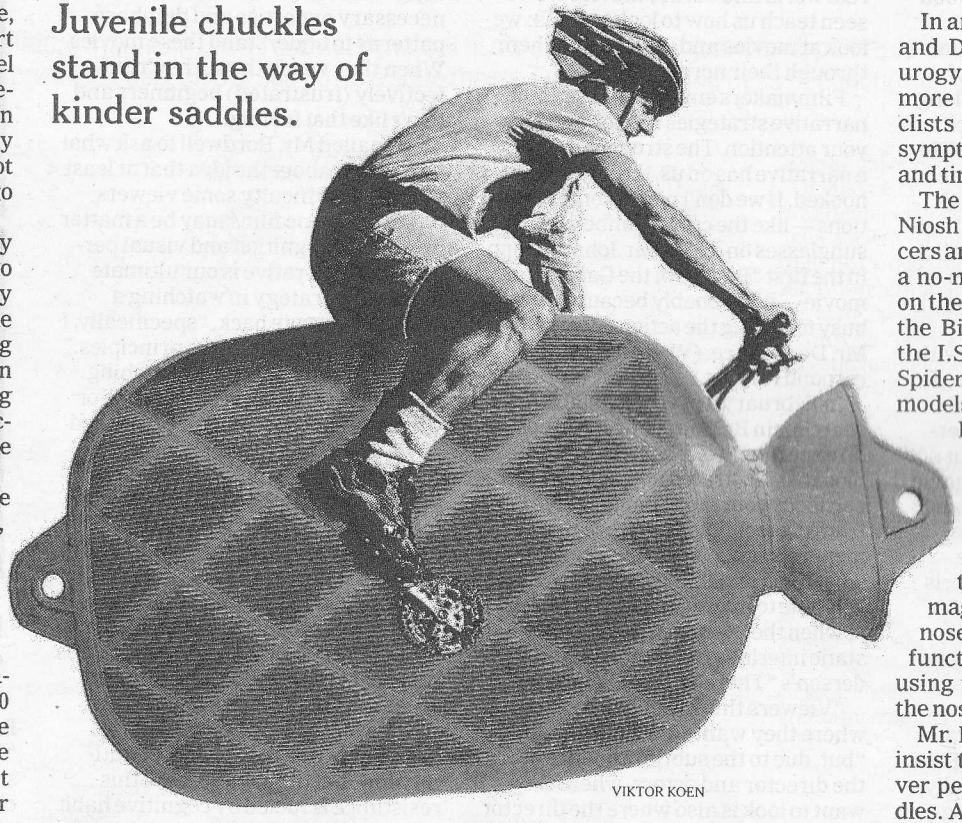
"There's as much penis inside the body as outside," Steven Schrader, the reproductive physiologist at Niosh who did the experiment with police officers. "When you sit on a regular bike saddle, you're sitting on your penis."

According to Dr. Schrader's measurements, you are putting 25 to 40 percent of your body's weight on the nerves and blood vessels near the surface of the perineum. "That part of the body was never meant to bear pressure," Dr. Schrader said. "Within a few minutes the blood oxygen levels go down by 80 percent."

Dr. Schrader has documented the results with the help of a couple of pieces of equipment, the biothesiometer and the Rigiscan.

"The biothesiometer is a device in which the men set their penis into a trough, and it slowly starts to vibrate," he explained. "They push the button when they can feel the vibration. While it sounds delightful, it's actually not.

Juvenile chuckles stand in the way of kinder saddles.



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The Rigiscan is a machine the men wear at night that grabs the penis about every 15 seconds to see if it's erect. It's not as pleasant as it sounds, either."

In one early study with the Rigiscan, Dr. Schrader found that police officers patrolling on bikes with conventional saddles tended to have shorter erections than did noncyclists. Then, in a 2008 study, he reported the results of having Mr. Brown and the other officers switch to new designs.

Before the study, nearly three-quarters of the officers complained of numbness while riding. After six months, fewer than one-fifth complained.

The typical officer in the study showed no improvement in the nighttime Rigiscan measure. A fan of traditional saddles might interpret that as reason not to change saddles, but Dr. Schrader sees it as evidence that some effects of a conventional saddle may be slow, or impossible, to reverse.

In another study, Dr. Marsha Guess and Dr. Kathleen Connell, who are urogynecologists at Yale, found that more than 60 percent of female cyclists using nosed saddles reported symptoms of genital pain, numbness and tingling.

The accumulating evidence has led Niosh to recommend that police officers and other workers on bicycles use a no-nose saddle that puts pressure on the "sit bones." Examples include the BiSaddle (used by Mr. Brown), the I.S.M., the Hobson Easyseat, the Spiderflex, Ergo's The Seat, and other models listed at HealthyCycling.org.

But few cyclists are paying attention.

"I suppose there's a small niche of people for whom a noseless saddle might be a solution," said Peter Flax, the editor in chief of Bicycling magazine. "But a saddle without a nose has real problems in terms of function. A cyclist can make turns using the weight in the hips against the nose."

Mr. Brown and other police officers insist that they've learned to maneuver perfectly well with no-nose saddles. And people in spin classes don't have to steer their bikes anywhere, so why are they still sitting on their perineums?

Jim Bombardier, who lives in Portland, Oregon, and invented the BiSaddle, went to stores armed with scientific papers and diagrams, but no one was interested. One shop owner took a look at his new saddle and summarized the marketing problem:

"This saddle screams out: I've got a problem. Who needs that in a bike shop?"