

Cyclists Be Warned: Sit Up Straight to Avoid ED

BY FRAN LOWRY
Orlando Bureau

ATLANTA — It's not only the bicycle seat that causes erectile dysfunction in some men who cycle—it may also be the way in which they sit on the seat, according to a poster presentation at the annual meeting of the American Urological Association.

Erectile dysfunction (ED) resulting from penile hypoxia can sometimes occur after prolonged bicycling, particularly when men who ride road or touring bikes lean far forward, as when using dropped handlebars. ED may occur even when riders use grooved seats to reduce pelvic compression. One new solution may be to sit up straight, or at least somewhat straighter, thereby reducing compression on the internal pudendal artery and nerve, said Dr. John M. Gemery, professor of radiology, Dartmouth-Hitchcock Medical Center, Lebanon, N.H.

Erectile dysfunction is theoretically less likely to occur in racing cyclists, who spend much of their riding time standing up. But men who ride for a few hours on flat sur-



Male cyclists who lean forward while cycling long distances risk getting ED.

faces and stay bent forward over the handlebars may be more likely to end up with ED, Dr. Gemery said in an interview.

Much effort has gone into designing bicycle seats that have a central groove or cutout to reduce perineal pressure. Study results have shown that it helps when a male rider uses a grooved seat. However, penile artery compression can still occur with a grooved seat when the rider leans far forward. No matter what seat a rider chooses, leaning forward causes higher compression (and hence greater potential for ED), compared with sitting upright while riding, Dr. Gemery said.

He became interested in cycling-induced erectile dysfunction when he was an interventional radiology fellow at Boston Medical Center, working with Dr. Irwin Goldstein, who raised the first concerns about bike seats and ED. "I was doing angiograms for him, so I also became interested in the problem. We were trying to figure out where, in fact, the blood vessels to the penis get compressed."

Dr. Gemery continued this research at Dartmouth-Hitchcock, where he developed three-dimensional digital models created from CT scans of the pelvis of an adult male volunteer, as well as three bicycle seat designs.

He worked closely with Dr. Ajay Nangia, who is a professor of surgery (urology) at Dartmouth-Hitchcock Medical

Center and an expert in male infertility and microsurgery.

The seats were chosen to represent the full spectrum of designs, including a narrow racing seat (Selle Italia Flite), a tensioned leather seat (Brooks Professional), and a seat with a central groove (Specialized Body Geometry Comp). Dr. Gemery and his associates then took lateral radiographs of the volunteer sitting on a bicycle in various positions to determine the position of the bony pelvis relative to the

bicycle seat. They found that the most likely site for compression of the internal pudendal arteries was between the bicycle seat and the pubic symphysis.

"As the rider leaned further forward, the pubic symphysis got progressively closer to the seat, so that the space between the undersurface of the pubic symphysis and the top of the seat got smaller. These arteries have to run underneath the pubic symphysis to get out to the base of the penis, so as that space between the seat and

symphysis closes, there is less space for those arteries, and in fact, for the pudendal nerves as well," Dr. Gemery explained.

Although a seat with a central groove should reduce the risk of compression and thus erectile dysfunction, rider positioning seems to have a potentially equal or even greater role in preventing the problem, he concluded. Because the study was based on just one subject, follow-up research needs to be done to confirm if it will be true in riders with varying anatomy, he said. ■

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