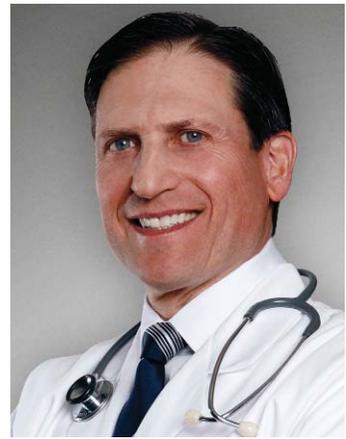


HEALTH:

# Bicycling and the Potential for Sexual Dysfunction

By Andrew Siegel, MD



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Cycling-induced sexual dysfunction is a complex issue with multiple factors involved including the specifics of the geometry and hardness of the saddle, the anatomical variations of the individual, the amount of time spent in the saddle, the weight of the cyclist, the intensity of the cycling effort, and the particular style of sitting, which is nuanced and variable. Greater saddle width and the absence of a saddle nose have been demonstrated to be the most important factors in preventing arterial compression. If the saddle is not wide enough to support the ischial tuberosities (sit bones), then body weight is borne by the perineum. The wider saddles provide greater surface area that may allow the ischial tuberosities to bear more of the body weight.

To reduce perineal compression, the back part of the saddle should be at least as wide as the distance between the two ischial tuberosities. However, too wide is no good because it may chafe the inner thighs. It is important for a saddle to be flat

enough because if there is too much curvature, the center of the saddle can push up on the perineum and cause compression.

In addition to wide enough and flat enough, it is important that a saddle is firm enough. Gel saddles actually cause more trauma than unpadded saddles by virtue of the body sinking into the soft padding and the saddle thus squishing up into the perineum. The reduced surface area of saddles with a narrow cutout can actually increase the extent of the perineal pressure (on the edges of the cutout); however, for those cyclists who find that if they have a saddle that is sufficiently wide, flat and firm yet remains uncomfortable, they may need a cutout to help relieve some of the perineal discomfort.

A horizontal or even downward-pointing saddle position has been associated with reduced perineal pressure. Heavier riders exert more pressure on their saddles than lighter riders. Lower handlebars may exacerbate perineal stress by forcing the rider to lean forward, putting more body weight on the perineum.

A study was performed on male police officers recruited from several U.S. metropolitan areas who spent many hours a week in the saddle, testing the effectiveness of no-nose ergonomic saddles. After 6 months in a no-nose saddle, there was a significant reduction in saddle contact pressure with the perineum, improvement in penile sensation and better erectile functioning.

As a cyclist goes from sitting upright to the bent-over aerodynamic position, the torso and pelvis rotate forward and the ischial tuberosities are lifted off the saddle surface, shifting more weight onto the perineum. This is clearly a superior position for time trials and triathlons, but inferior for one's genital health.

On the other extreme, when standing on the pedals, there is no perineal pressure and studies have shown that genital oxygenation is significantly increased. Interestingly, professional cyclists place less pressure on the saddle and appear to "float" over it. Mountain bikes have been associated with a greater degree of sexual dysfunction than road

bikes, likely because of the additional perineal hammering and vibrational trauma from cycling over rough terrain; however, this is balanced to some extent by the use of suspension mechanisms, the increased time spent out of the saddle and more frequent dismounts.

The sexual dysfunction that may occur after a prolonged bike ride is often temporary, but can potentially become permanent if the perineum is subjected to chronic, sustained and repeated pressure trauma. It is much less likely to occur with recreational weekend cyclists and commuter cyclists who do not log in significant miles and more likely to occur in serious road cyclists and mountain bikers. It is estimated that 5% of men who cycle intensively have moderate to severe erectile dysfunction, and the number may be higher because many men are too embarrassed to discuss the issue or fail to make the connection between cycling and the resultant ED.

Female cyclists have not been studied as closely as have male cyclists, but clearly cycling is potentially hazardous to a woman's sexual health. Studies have shown that women cyclists as opposed to runners had significantly higher genital vibratory thresholds (reduced sensation) of the clitoris, perineum, vagina and labia.

The first clue that trouble may be lurking is unusual sensations including genital numbness and tingling, symptoms commonly experienced by cyclists, correlating with time spent in the saddle. These are signs to shift position and perhaps assume a standing posture on the pedals to allow the symptoms to subside. Frequent subtle adjustments by shifting and shimmying and making an effort to sit on the ischial tuberosities are helpful. Other measures one can take are wearing well padded cycling shorts and investing in a well-fitted seat tailored to the specifics of one's anatomy. The saddle needs to be carefully adjusted and fine-tuned in terms of height and angulation to minimize perineal pressure.

Dr. Arnold Kegel popularized pelvic floor muscle exercises in order to improve female sexual and urinary health after childbirth; his legacy lives on in these exercises that bear his name—Kegel exercises. Men have essentially the same pelvic floor muscles that women do and an equivalent capacity for exercising them, with a parallel benefit to urinary and sexual health.

Cyclists can tap into their pelvic floor muscles to pump some “life” back into their compromised genitals after a long ride. Similar to using a bike pump to inflate tires so that they are well pressurized, with each contraction of the pelvic floor muscles, blood pumps into the genital tissues to help “resuscitate” them. Performing Kegel exercises on a regular basis can help prevent perineal compression trauma by building strength and tone in the pelvic area. Pelvic floor muscle exercises performed before, during and after cycling can help mitigate compression trauma.

Most cyclists will periodically take a break from sitting in the saddle by standing up—this provides a perfect opportunity to take the pressure off the perineum and to do a few pelvic floor muscle contractions to restore genital blood flow.

Long distance cyclists may benefit from using oral medications for ED—including Viagra, Levitra, Cialis, and Stendra—to help maintain genital blood flow and oxygenation. These medications increase genital blood flow in both genders, and although research has only been reported in male cyclists, on a physiological basis there is no reason to believe why they would be any less effective in females.

A final word: Cycling is an awesome sport that occasionally may contribute to male and female sexual dysfunction, especially for serious cyclists who spend prolonged time periods in the saddle. Pay careful attention to your perineum, very valuable human real estate that contains structures that are vital to sexual health. 🔑

## Keys To Reducing Risk For Sexual Dysfunction

1. Wear well padded cycling shorts.



2. Be proactive—shift from sitting to standing every 10 minutes or so.

3. When numbness and tingling occur, shift into an alternative position on the saddle and/or stand on the pedals.

4. Sit back firmly on your ischial tuberosities and not on your perineum—as you shimmy from the saddle nose (which can really dig into your perineum) towards the back of the saddle (where you sit on your ischial tuberosities), you can feel your body engage properly.

5. Invest in an ergonomic bicycle saddle tailored to the nuances of your anatomy—make sure it is wide enough to support your sit bones, firm enough so that your perineum doesn't sink and flat enough so that you don't slide and that it doesn't wedge up under the perineum.

6. Adjust seat and handlebar height and angle to minimize perineal compression.

7. Do pelvic floor muscle contractions periodically while cycling and pelvic floor exercises when not cycling.

8. If you start having sexual issues, seek aid pronto... help is available!