

## Preliminary study suggests frequent cycling could affect male fertility

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(PhysOrg.com) -- A study of men attending fertility clinics has found bicycling for five or more hours a week was associated with low sperm count and poor sperm motility.

Previous studies of competitive cyclists has linked the sport to poor <u>semen quality</u> as well as urinary and genital problems, but until now no such links have been shown in non-competitive cyclists.

Dr. Lauren Wise, Associate Professor of Epidemiology at Boston University School of Public Health (BUSPH), decided to see if there was a relationship between exercise and fertility. Along with her colleagues she studied 2,261 men who were members of couples attending one of three fertility clinics in the Boston area between 1993 and 2003. She gave each of the men about to undergo their first IVF cycles a questionnaire that included questions about their exercise levels, type of exercise, general health and medical history, and each man also provided at least one semen sample.

The results of the prospective cohort study, published in the journal Fertility and Sterility showed that, after adjustment for variables such as multivitamin use, blood pressure, weight, and type of underwear worn, exercise levels generally had no overall impact on sperm quality and quantity.

When the researchers broke the data down into specific forms of exercise, they found that men who bicycled for five hours or more a



week were more likely to have a low sperm count and poor quality (low motility) sperm than men who did not exercise at all or those doing other forms of exercise. Less than a quarter of the non-exercisers had a low sperm count compared to 31 percent of the frequent bike riders. Just over a quarter (27 percent) of the sedentary men had poor sperm motility compared with 40 percent of the cyclists.

Dr. Wise speculated that semen may be affected by temperature increases in the scrotum or trauma while cycling, but said it was much too early to be sure of the cause, and she added that it is as yet "unknown whether cycling itself actually caused the issues with their sperm." Since the men were attending fertility clinics, it is also not possible to say whether or not the findings would be the same among the general population, and further research would be needed to make any firm conclusions.

**More information:** Physical activity and semen quality among men attending an infertility clinic, *Fertility and Sterility*, doi:10.1016/j.fertnstert.2010.11.006

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