Bicycling and erectile dysfunction

- 3 Feldman HA *et al.* Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. *J Urol* 1994; **151**: 54.
- 4 McKinlay JB, Feldman HA. Age-related variation in sexual activity and interest in normal men: results from the Massachusetts Male Aging Study. In: Rossi AS (ed). Sexuality Across the Life Course. Proceedings of the MacArthur Foundation Research Network on Successful Mid-Life Development. University of Chicago Press: New York, 1994, pp 261–285.
- 5 Araujo AB *et al.* The relationship between depressive symptoms and male erectile dysfunction: cross-sectional results from the Massachusetts Male Aging Study. *Psychosom Med* 1989; **60**: 458.
- 6 Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: prevalence and predictors. JAMA 1999; 281: 537-544.
- 7 Mellion MB. Common cycling injuries: management and prevention. Sports Med 1991; 11: 52.
- 8 US Department of Transportation. Nation's Top Highway Official Reports On Bicycle Transportation Progress at Earth Day Bike-In Rally. Press Release Thursday, 22 April 1999.
- 9 Gray A *et al.* Age, disease, and changing sex hormone levels in middle-aged men: results of the Massachusetts Male Aging Study. *J Clin Endocrinol Metab* 1991; **73**: 1016.
- 10 Solomon S, Guglielmo K. Impotence and bicycling, a seldomreported connection. *Postgrad Med* 1987; **81**: 99.
- 11 Silbert PL *et al.* Bicycling induced pudendal nerve pressure neuropathy. *Clin Exp Neurol* 1991; **28**: 191.
- 12 Hoyt CS. Ulnar neuropathy in bicycle riders. Arch Neurol 1976; 33: 372.
- 13 Anderson KV, Bovim G. Impotence and nerve entrapment in long distance amateur cyclists. *Acta Neurol Scand* 1997; **95**: 233.
- 14 Salimpour P *et al.* Sexual and urinary tract dysfunctions in bicyclists. *J Urol* 1998; **159**: 30.
- 15 Nayal W *et al.* Transcutaneous penile oxygen pressure during bicycling. *BJU Int* 1999; **83**: 623-625.
- 16 Mulhall JP et al. The effects of bicycle seat compression on cavernosal artery hemodynamics. Int J Impot Res 1996; 8: 130.

- 17 Broderick GA. Bicycle seats and penile blood flow: does the type of seat matter? *J Urol* 1999; **161**: 178.
- 18 Kleinman K et al. A new surrogate variable for erectile dysfunction in the Massachusetts Male Aging Study. J Clin Epidemiol 2000; 53: 71-78.
- 19 Araujo AB *et al.* The prospective relation between psychosocial factors and incident erectile dysfunction: results from the Massachusetts Male Aging Study. *Am J Epidemiol* 2000; **15**: 533–541.
- 20 US Department of Transportation, Federal Highway Administration. Case Study No. 15: The Environmental Benefits of Bicycling. National Bicycling and Walking Study. Publication No. FHWA-PD-93-015. January, 1993.
- 21 Public Roads On-Line. Bicycling and walking can be feasible transportation choices: making more modes. Autumn, 1994.
- 22 Radloff LS. The CES-D scale: a self-report depression scale for research in the general population. *Appl Psychol Meas* 1977; 1: 385.
- 23 US Department of Health and Human Services: National Center for Health Statistics. Third National Health and Nutrition Examination Survey, 1988–1994, NHANES III Household Adult, Examination, and Laboratory Data Files (CD-ROM). Public Use Data File Documentation No. 76200. Hyattsville: Centers for Disease Control and Prevention, 1996.
- 24 Bijnen FCH et al. Physical activity and cardiovascular risk factors among elderly men in Finland, Italy, and The Netherlands. Am J Epidemiol 1996; 143: 553.
- 25 Morris JN *et al.* Exercise in leisure time: coronary attack and death rates. *Br Heart J* 1990; **63**: 325.
- 26 Derby CA et al. Modifiable risk factors and erectile dysfunction: can life-style changes modify risk? Urology 2000; 56: 302-306.
- 27 American Heart Association. Economic cost of cardiovascular diseases. www.americanheart.org/statistics. 7 March 2000.
- 28 Hillman M. Cycling offers important health benefits and should be encouraged. Br Med J 1997; **315**: 490.
- 29 Burke ER. Proper fit of the bicycle. *Clin Sports Med* 1994; **13**: 1.

Editorial Comment

An association between bicycling and erectile dysfunction (ED) has been described previously, but there are limited data examining this association in a random population of men. The authors analyse the data of the MMAS and conclude that there may be a reduced risk of ED in those who ride less than 3 h per week and ED may be more likely in bikers who ride more than 3 h per week.

Although, unfortunately the sample size is too small to reach enough power to give a definite decision on the case of bicycling and impotence, especially when details such as the time spent on a bicycle are discussed, this well written manuscript contains an important message that deserves attention and discussion. It provides data to support the fact that physical activity, ie bicycling, may reduce the risk of developing ED. Indeed, one of the most important aims of today's ED treatment should be adjustment of lifestyle and modification of risk factors where possible, such as lack of exercise.

In this holistic medical approach, the patient in general and the ED patient in particular should be informed that daily exercise may have a profound favourable impact on both short- and long-term health and quality of life. As the authors state: 'physical activity is of major concern in the US: only about 15% of US adults engage in regular physical activity. And approximately 250 000 US deaths per year can be attributed to inactivity'. And bicycling may be the most feasible form of exercise.

Now it has become more clear that exercise in the format of bicycling may reduce the risk of ED, our efforts should be pointed towards the technical aspect of bicycling, such as: change of body position during cycling, the position of the handlebars, the height of the saddle, the downwards tipping of the nose of the saddle to produce a more horizontal, or even downward pointing position and the design of the saddle.