

Female elite athletes require stronger pelvic floor muscles to prevent UI

2004 NOV 29 -- Female athletes participating in high-impact sports have higher prevalence of urinary incontinence, according to a recent study.

"Urinary incontinence is defined as 'the complaint of any involuntary leakage of urine' and is a common problem in the female population with prevalence rates varying between 10% and 55% in 15- to 64-year-old women. The most frequent form of urinary incontinence in women is stress urinary incontinence, defined as 'involuntary leakage on effort or exertion, or on sneezing or coughing,'" explained K. Bo and colleagues at the Norwegian University of Sport and Physics Education, Oslo.

The study authors performed a literature review "on urinary incontinence and participation in sport and fitness activities with a special emphasis on prevalence and treatment in female elite athletes."

"Stress urinary incontinence is a barrier to women's participation in sport and fitness activities and, therefore, it may be a threat to women's health, self-esteem, and well-being," Bo and coauthors wrote.

"The prevalence during sports among young, nulliparous, elite athletes varies between 0% (golf) and 80% (trampolinists). The highest prevalence is found in sports involving high impact activities such as gymnastics, track and field, and some ball games," the researchers found.

"A 'stiff' and strong pelvic floor positioned at an optimal level inside the pelvis may be a crucial factor in counteracting the increases in abdominal pressure occurring during high-impact activities," they said.

Their literature search turned up "no randomized controlled trials or reports on the effect of any treatment for stress urinary incontinence in female elite athletes. However," Bo and team reported, "strength training of the pelvic floor muscles has been shown to be effective in treating stress urinary incontinence in parous females in the general population."

"In randomized controlled trials, reported cure rates, defined as <2 g of leakage on pad tests, varied between 44% and 69%," they noted.

The researchers said that "pelvic floor muscle training has no serious adverse effects and has been recommended as first-line treatment in the general population. Use of preventive devices such as vaginal tampons or pessaries can prevent leakage during high-

impact physical activity."

"The pelvic floor muscles need to be much stronger in elite athletes than in other women. There is a need for more basic research on pelvic floor muscle function during physical activity and the effect of pelvic floor muscle training in female elite athletes," they concluded.

Bo and coauthors published their study in *Sports Medicine* (Urinary incontinence, pelvic floor dysfunction, exercise and sport. *Sport Med*, 2004;34(7):451-464).

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