

University of Minnesota Researchers Find Muscle and Bladder Training effective in managing Urinary Incontinence In Women, Academic Health Center at the University of Minnesota

Several other remedies, including drugs and devices, were inconsistent, ineffective, or increased rates of incontinence

MINNEAPOLIS / ST. PAUL (Feb. 14, 2008) -- University of Minnesota researchers have found that many urinary incontinence (UI) management techniques – including drugs and mechanical devices – are ineffective. A new systematic review of published studies on non-surgical management of UI in women found that pelvic floor muscle training plus bladder training resolved urinary incontinence. Pelvic floor muscle training alone resolved or improved urinary incontinence compared with regular or ordinary care, although the effect was inconsistent across studies. The anticholinergic drugs oxybutynin and tolterodine resolved UI compared with placebo, but many other management techniques, from drugs to mechanical devices, showed little positive to actual negative effects.

“Buried in the bad news of widespread use of many products that don’t work is some very good news,” said [Robert L. Kane, M.D.](#), University of Minnesota School of Public Health professor and an author of the review. “The data show that intensive lifestyle changes, like losing weight through diet and exercise, would avoid 54 cases of stress urinary incontinence per 1,000 treated women, but it is unlikely women would stick with such a regimen just to avoid incontinence. Pelvic floor muscle training would resolve 490 cases of stress urinary incontinence, and 80 cases of any urinary incontinence, and 167 cases of stress or urge urinary incontinence per 1,000 treated women.”

Assessments on other management techniques for UI:

- Oral hormone administration increased rates of UI compared with placebo.
- Electrical stimulation failed to resolve UI.
- Adrenergic drugs, which accelerate heart rate, did not resolve or improve UI.
- Duloxetine, an antidepressant, improved but did not resolve UI compared with placebo.
- Transdermal or vaginal estrogen resulted in inconsistent improvement of UI.
- Injectable bulking agents and medical devices were associated with similar continence and improvement rates.

Urinary incontinence affects many women, with estimates varying according to the definition and method of data collection. Reviewers found 96 randomized, controlled trials and three systematic reviews published in English from 1990 through May 2007. Reviewers abstracted cases of incontinence, improvement of urinary incontinence, and prevalence of urinary incontinence to calculate risk difference.

The review, “Systematic Review: Randomized, Controlled Trials of Nonsurgical Treatments for Urinary Incontinence in Women,” appears on the Web site of *Annals of Internal Medicine*, www.annals.org, and will be published in the March 18, 2008 print edition of the journal. It was commissioned as background material for a National Institutes of Health Offices of the Medical Applications of Research State of the Science Conference on Prevention of Fecal and Urinary Incontinence.

Annals of Internal Medicine (www.annals.org) is one of the most widely cited peer-reviewed medical journals in the world. The journal has been published for 80 years and accepts only 7 percent of the original research studies submitted for publication. *Annals of Internal Medicine* is published by the American College of Physicians (www.acponline.org), the largest medical specialty organization and the second-largest physician group in the United States.

The Academic Health Center is home to the University of Minnesota's six health professional schools and colleges as well as several health-related centers and institutes. Founded in 1851, the University is one of the oldest and largest land grant institutions in the country. The AHC prepares the new health professionals who improve the health of communities, discover and deliver new treatments and cures, and strengthen the health economy.