

## ACP Provides Guidance on Nonsurgical Treatment of Urinary Incontinence in Women

### Key Points for Practice

- PFMT and bladder training are recommended for women with stress and urgency UI, respectively.
- Pharmacologic therapy with anticholinergics or beta<sub>3</sub>-adrenoceptor agonists is indicated upon failure of bladder training for patients with urgency UI.
- Lifestyle modifications including weight loss and exercise are recommended, especially in women with UI who are obese.

*From the AFP Editors*

Coverage of guidelines from other organizations does not imply endorsement by AFP or the AAFP.

This series is coordinated by Sumi Sexton, MD, Associate Medical Editor.

A collection of Practice Guidelines published in AFP is available at <http://www.aafp.org/afp/practguide>.

The prevalence of urinary incontinence (UI) ranges from 25% in females 14 to 21 years of age to 75% in women 75 years and older, although it may actually be higher than reported because some evidence has shown that one-half or more of women with UI do not tell their physicians about symptoms. There is an increased risk of UI with pregnancy and with pelvic floor trauma from delivering vaginally, as well as in women who are menopausal or obese; who have a urinary tract infection, functional or cognitive impairment, chronic cough, or constipation; or who have had a hysterectomy.

There are two categories of UI: stress, which is caused when the urethral sphincter does not work because of intra-abdominal pressure, and urgency, which is associated with the urgent need to urinate. Stress UI can cause urine to leak when laughing, coughing, or sneezing. Mixed UI is stress and urgency UI combined.

The American College of Physicians (ACP) has provided recommendations for nonsurgical treatment of UI in women. Treatment of UI is aimed at achieving, or at least improving, symptoms. It is deemed effective if it reduces the number of episodes by at least one-half.

### Nonpharmacologic Therapy

Nonpharmacologic therapy options for UI, which have been shown to be effective and

have a lower risk of adverse effects, include lifestyle changes (weight loss and physical activity), bladder training, pelvic floor muscle training (PFMT), continence services, vaginal cones, and medical devices. There have not been enough data to compare various types of nonpharmacologic therapies or to compare nonpharmacologic with pharmacologic therapies.

### LIFESTYLE CHANGES

In women with UI who are obese, weight loss and exercise are recommended, with moderate-quality evidence indicating improvement in symptoms. Additionally, no associated harms were apparent with this intervention.

### BLADDER TRAINING

Bladder training, which is behavioral treatment that entails having women lengthen the time between urinating, is recommended in women with urgency UI, with low-quality evidence indicating improvement vs. no treatment.

### PELVIC FLOOR MUSCLE TRAINING

Based on high-quality evidence, PFMT consisting of educating women on the voluntary contraction of pelvic floor muscles should be first-line treatment for stress UI, and PFMT combined with bladder training is recommended for mixed UI. Studies have shown that, compared with no treatment, PFMT improved continence rates and quality of life in women with stress UI. It also was shown to have an effectiveness greater than five times that of no treatment for improving stress UI. Additionally, PFMT can be combined with biofeedback from vaginal electromyography, which allows patients to see when they are contracting their pelvic floor muscles correctly; this also has been shown to improve

## Practice Guidelines

stress UI. In women with mixed UI, PFMT plus bladder training led to continence and improved UI more often than no treatment.

### CONTINENCE SERVICES

Continence services enlist the assistance of health care professionals who have knowledge and experience in diagnosing and managing UI; however, studies have shown that, compared with no treatment, it provided no statistically significant improvement in continence or UI.

### VAGINAL CONES, MEDICAL DEVICES, AND OTHER TREATMENTS

Data are insufficient to make a conclusion about the effectiveness, compared with no treatment, of vaginal cones, pessaries, or intravaginal and intraurethral devices for treating stress UI, or of programs for behavioral changes, diets supplemented with soy, or acupuncture for mixed UI.

### Pharmacologic Treatment

Systemic pharmacologic therapy is not recommended in women with stress UI; however, based on high-quality evidence, it is recommended in women with urgency UI in whom bladder training has failed. Decisions regarding medication should be based on tolerability, adverse effects, ease of use, and cost. Although it has some effectiveness, it should be noted that pharmacologic therapy has adverse effects, with evidence indicating that women may discontinue therapy as a result. Medication options include antimuscarinics, beta<sub>3</sub>-adrenoceptor agonists, duloxetine (Cymbalta), and estrogen. Data are insufficient to conclude which medications are most effective and safe.

### STRESS UI

There are not enough data on topical estrogen preparations regarding the effectiveness for treating stress UI; however, vaginal estrogen appears to improve continence and UI. Compared with placebo, transdermal formulations made stress UI worse and estradiol implants did not provide improvement. Estrogen tablets and ovules improved UI compared with placebo, with tablets also increasing continence. Intravaginal estriol combined with PFMT was more effective for attaining continence compared with estriol monotherapy, based on low-quality evidence. High-quality evidence showed that there was no statistically significant improvement in

UI with duloxetine vs. placebo; however, based on low-quality evidence, it was shown to improve quality of life in women without severe UI or overactive bladder.

### URGENCY UI

*Antimuscarinics.* Based on high-quality evidence and in comparison with placebo, darifenacin (Enablex), fesoterodine (Toviaz), and tolterodine (Detrol) improved UI; darifenacin improved quality of life; and oxybutynin (Ditropan XL), solifenacin (Vesicare), tolterodine, and trospium attained continence more often. Additionally, fesoterodine improved UI more than tolterodine.

Based on moderate-quality evidence and in comparison with placebo, fesoterodine attained continence more often, and oxybutynin and propiverine (not available in the United States) improved UI. Additionally, fesoterodine attained continence more often than tolterodine.

*Beta<sub>3</sub>-adrenoceptor Agonists.* Based on moderate-quality evidence and in comparison with placebo, mirabegron (Myrbetriq) improved UI and attained continence more often.

*Other.* There are not enough data to make conclusions about the effectiveness of resiniferatoxin or nimodipine (Nimotop) as UI therapy.

### ADVERSE EFFECTS

Among the different classes of medication, adverse effects tended to be similar. Common adverse effects of antimuscarinics were dry mouth, constipation, and blurred vision. In addition, tolterodine also increased the likelihood that a patient would experience hallucinations. With regard to beta<sub>3</sub>-adrenoceptor agonists, patients taking mirabegron experienced more nasopharyngitis and gastrointestinal problems than those taking placebo. Although pharmacologic therapy can improve UI, and possibly can provide complete continence, patients may stop treatment because of adverse effects.

**Guideline source:** American College of Physicians

**Evidence rating system used?** Yes

**Literature search described?** Yes

**Guideline developed by participants without relevant financial ties to industry?** No

**Published source:** *Annals of Internal Medicine*, September 16, 2014; 161(6):429-440

**Available at:** <http://annals.org/article.aspx?articleid=1905131>

LISA HAUK, *AFP* Senior Associate Editor ■