



The GP's Guide to Dealing with Female Urinary Incontinence



By David Wilkie, MD, RCOG, FRCSC

Urinary incontinence is a common problem for women and its prevalence increases with age. For every woman who brings her incontinence problem to her doctor's attention, four or more avoid doing so due to embarrassment or shame.¹ Many women come to believe that incontinence is an inevitable consequence of aging, and unfortunately their caregiver(s) may agree. Society's attitude towards incontinence is changing gradually and this shift is due to several factors: incontinence is better understood and simple non-invasive therapies can be effective. With greater publicity about incontinence and treatment options, women are now less tolerant of incontinence; this is particularly true for the woman who sees her activities and health deteriorating as a result of incontinence.

In this article:

1. What does incontinence mean?
2. What causes urinary incontinence?
3. Who is at risk?
4. Where do I start the assessment?
5. What are the treatment options?

What does incontinence mean?

Continence has several requirements: an intact central nervous system, reservoir, and sphincter. Problems in these areas can be diagnosed and often treated at the primary-care level. Incontinence can be divided into several types and therapy can be focused on the most treatable conditions. Stress incontinence results from the loss of urine at the time of a rise in abdominal pressure such as coughing, sneezing, laughter, and sudden movement. The pressure of urine in the bladder is transiently higher than in the urethra even though the detrusor muscle is passive.

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Practice Pointer

Contributing Factors in Female Urinary Incontinence

1. Local irritation: urinary tract infections, estrogen deficiency
2. Upper motor neurone disease: multiple sclerosis, cerebrovascular accident

What causes urinary incontinence?

Pelvic floor changes of vaginal birth are the most common causes of stress incontinence, but obesity, smoking, strenuous activities, and aging changes are also implicated.² Urge incontinence is also referred to as bladder overactivity and implies uninhibited detrusor contractions leading to leakage of sometimes massive amounts of urine. Contributing factors include local irritation [urinary tract

infections (UTIs), estrogen deficiency] and upper motor neurone disease (multiple sclerosis, cerebrovascular accident). Most often, however, no underlying abnormality can be found.³ Retention with overflow incontinence is uncommon in women and may be due to an obstruction (urethral stenosis, stress incontinence surgery overcorrection) or detrusor atony (peripheral neuropathy, overdistention, low spinal cord lesion).⁴ Mixed incontinence frequently occurs and implies a combination of two of the above.

Who is at risk?

Elderly women have predisposing and precipitating causes for incontinence that make them a special group. Predisposing factors include metabolic disorders (diabetes, renal failure), neurologic changes, affective disorders, and reduced mobility. On top of these, precipitating problems include estrogen deficiency, drug effects (direct and indirect acting), acute illness, hospitalisation, UTI, and constipation. Treating the first group of conditions is often difficult, but the second group is usually more responsive to therapy.

Where do I start the assessment?

Assessment begins with a good history and physical exam. A pure complaint of leaking with a cough or exertion combined with the findings of a cystourethrocele and leakage with straining is diagnostic of stress incontinence. Most patients void just before being examined and stress incontinence is usually a vertical event.



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Leakage may not occur during a regular gynecologic exam. A patient with bladder overactivity gives a convincing story of frequency, urgency and urge incontinence, and her exam is often negative for any problem. Signs of central nervous system disease should be obvious if present and genital atrophy may be apparent. A distended bladder should signal a retention problem and may be associated with others signs of neuropathy.

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What are the investigations?

Investigations at the primary-care level include a urinalysis, a voiding diary, and renal function studies. A UTI should be treated and if the culture is negative, other bladder problems should be pursued (stone, tumour). The diary is useful to help the clinician determine the nature of the bladder problem. Often the symptoms are vague and can be clarified when reviewing two or three days of fluid intake and output. Associated symptoms of coughing or urgency are helpful, and volume per voids may direct therapy to a renal problem of concentration. Significant nocturnal volumes suggest diabetes (mellitus or insipidus). A diary is also a good baseline against which to measure the effect of treatment.

How is urinary incontinence treated?

Most forms of incontinence can be treated at the primary-care level.⁵ General measures should include weight reduction and discontinuation of smoking, as these contribute to increases in intra-abdominal pressure (Table 1). Stress incontinence following childbirth responds to pelvic floor exercises that can be described to the patient in the office. A demonstration by the patient of her ability to contract her pelvic floor can be informative to both her and her doctor. Many women will perform a valsalva instead of an appropriate pelvic floor contraction. Sub-urethral support can also be provided by the insertion of a tampon before an exercise session. Some women will tolerate a pessary that stabilises the urethra and provides improved pressure transmission when there is an increase of intra-abdominal pressure. More family physicians are taking an interest in pessary fitting, as this is certainly a safe and well tolerated office-based treatment option.⁶

Table 1

An Overview on Urinary Incontinence

Types of incontinence

Stress
Urge
Retention/overflow
Mixed

Treatment Stress Incontinence

Weight control
Smoking cessation
Pelvic floor exercises
Pessary
Surgery

Treatment Urge Incontinence

Bladder retraining
Fluid adjustment
Estrogen
Antispasmodic Prescription
Neuromodulation
Diversion

Treatment Retention/Overflow

Intermittent self-catheterisation
Urethral dilation
Surgery to release
Adhesions

Medications for Urge Incontinence

- Oxybutinin (Ditropan) 2.5 mg to 5 mg/tid
- Oxybutinin (Ditropan XL) 5 mg to 10 mg/od
- Tolterodine (Detrol) 2 mg to 4 mg/bid
- Unidet 4 mg/od

When to refer

Failure of conservative therapy
Failure of previous surgery
Urinary retention

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Take-home message

- Urinary incontinence is a common problem and is associated with a significant social and financial cost.
- It is often multifactorial but is also often effectively managed at the primary-care level.
- * With an understanding of the different causes, treatment of incontinence is very rewarding.

menopausal woman often has a beneficial effect on irritative symptoms and also reduces the prevalence of urinary infections. Anticholinergic medication can be used temporarily or as long-term therapy to relax an overactive bladder. Reflux, asthma, and narrow angle glaucoma are contra-indications, but these medications are usually very safe for the family physician to prescribe. Dry mouth is the most common side effect and can be minimised by using the newer long-acting formulations.⁵

Referral should follow if the patient does not improve with the above treatments, if there is a persistent abnormality of the urinalysis, a palpable bladder after urination, or a failure of previous surgery. The next investigations will include urodynamic testing, cystoscopy, and radiology if indicated. Specialist treatment options for stress incontinence include retropubic surgery or tension-free sling insertion. If the urethra is already supported but scarred in an open state, peri-urethral injections may be appropriate to provide extra bulk to close the urethra. Stubborn bladder overactivity may occasionally require neuro-modulation of the sacral nerve outflow to the detrusor with the implantation of a bladder “pacemaker.” A distended bladder should be investigated to rule out damage to the upper tracts. Treatment for obstruction is either by urethral dilation or surgery to release an overly suspended urethra. Intermittent catheterisation can be very well tolerated as a treatment for bladder atony. Very occasionally, bladder diversion is necessary for intolerable dysfunction. This may take the form of an indwelling urethral catheter, a supra-pubic catheter, or bladder replacement. [CME](#)

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