

## Urinary Incontinence

Urinary incontinence — the loss of bladder control — is a common and often embarrassing problem. The severity ranges from occasionally leaking urine when you cough or sneeze to having an urge to urinate that's so sudden and strong you don't get to a toilet in time.

If urinary incontinence affects your daily activities, don't hesitate to see your doctor. For most people, simple lifestyle changes or medical treatment can ease discomfort or stop urinary incontinence.

Some people experience occasional, minor leaks of urine. Others wet their clothes frequently.

Types of urinary incontinence include:

- **Stress incontinence.** Urine leaks when you exert pressure on your bladder by coughing, sneezing, laughing, exercising or lifting something heavy.
- **Urge incontinence.** You have a sudden, intense urge to urinate followed by an involuntary loss of urine. You may need to urinate often, including throughout the night. Urge incontinence may be caused by a minor condition, such as infection, or a more severe condition such as neurologic disorder or diabetes.
- **Overflow incontinence.** You experience frequent or constant dribbling of urine due to a bladder that doesn't empty completely.
- **Functional incontinence.** A physical or mental impairment keeps you from making it to the toilet in time. For example, if you have severe arthritis, you may not be able to unbutton your pants quickly enough.
- **Mixed incontinence.** You experience more than one type of urinary incontinence.

### When to see a doctor

You may feel uncomfortable discussing incontinence with your doctor. But if incontinence is frequent or is affecting your quality of life, it's important to seek medical advice because urinary incontinence may:

- Indicate a more serious underlying condition
- Cause you to restrict your activities and limit your social interactions
- Increase the risk of falls in older adults as they rush to the toilet

Urinary incontinence isn't a disease, it's a symptom. It can be caused by everyday habits, underlying medical conditions or physical problems. A thorough evaluation by your doctor can help determine what's behind your incontinence.

## Temporary urinary incontinence

Certain drinks, foods and medications can act as diuretics — stimulating your bladder and increasing your volume of urine. They include:

- Alcohol
- Caffeine
- Decaffeinated tea and coffee
- Carbonated drinks
- Artificial sweeteners
- Corn syrup
- Foods that are high in spice, sugar or acid, especially citrus fruits
- Heart and blood pressure medications, sedatives, and muscle relaxants
- Large doses of vitamins B or C

Urinary incontinence also may be caused by an easily treatable medical condition, such as:

- **Urinary tract infection.** Infections can irritate your bladder, causing you to have strong urges to urinate, and sometimes incontinence. Other signs and symptoms of urinary tract infection include a burning sensation when you urinate and foul-smelling urine.
- **Constipation.** The rectum is located near the bladder and shares many of the same nerves. Hard, compacted stool in your rectum causes these nerves to be overactive and increase urinary frequency.

## Persistent urinary incontinence

Urinary incontinence can also be a persistent condition caused by underlying physical problems or changes, including:

- **Pregnancy.** Hormonal changes and the increased weight of the uterus can lead to stress incontinence.
- **Childbirth.** Vaginal delivery can weaken muscles needed for bladder control and also damage bladder nerves and supportive tissue, leading to a dropped (prolapsed) pelvic floor. With prolapse, the bladder, uterus, rectum or small intestine can get pushed down from the usual position and protrude into the vagina. Such protrusions can be associated with incontinence.
- **Changes with age.** Aging of the bladder muscle can decrease the bladder's capacity to store urine.

- **Menopause.** After menopause women produce less estrogen, a hormone that helps keep the lining of the bladder and urethra healthy. Deterioration of these tissues can aggravate incontinence.
- **Hysterectomy.** In women, the bladder and uterus are supported by many of the same muscles and ligaments. Any surgery that involves a woman's reproductive system, including removal of the uterus, may damage the supporting pelvic floor muscles, which can lead to incontinence.
- **Enlarged prostate.** Especially in older men, incontinence often stems from enlargement of the prostate gland, a condition known as benign prostatic hyperplasia.
- **Prostate cancer.** In men, stress incontinence or urge incontinence can be associated with untreated prostate cancer. But more often, incontinence is a side effect of treatments for prostate cancer.
- **Obstruction.** A tumor anywhere along your urinary tract can block the normal flow of urine, leading to overflow incontinence. Urinary stones — hard, stone-like masses that form in the bladder — sometimes cause urine leakage.
- **Neurological disorders.** Multiple sclerosis, Parkinson's disease, stroke, a brain tumor or a spinal injury can interfere with nerve signals involved in bladder control, causing urinary incontinence.

Factors that increase your risk of developing urinary incontinence include:

- **Gender.** Women are more likely to have stress incontinence. Pregnancy, childbirth, menopause and normal female anatomy account for this difference. However, men with prostate gland problems are at increased risk of urge and overflow incontinence.
- **Age.** As you get older, the muscles in your bladder and urethra lose some of their strength. Changes with age reduce how much your bladder can hold and increase the chances of involuntary urine release.
- **Being overweight.** Extra weight increases pressure on your bladder and surrounding muscles, which weakens them and allows urine to leak out when you cough or sneeze.
- **Other diseases.** Neurological disease or diabetes may increase your risk of incontinence.

Complications of chronic urinary incontinence include:

- **Skin problems.** Rashes, skin infections and sores can develop from constantly wet skin.
- **Urinary tract infections.** Incontinence increases your risk of repeated urinary tract infections.
- **Impacts on your personal life.** Urinary incontinence can affect your social, work and personal relationships

It's important to determine the type of urinary incontinence that you have. That information will guide treatment decisions.

Your doctor is likely to start with a thorough history and physical exam. You may then be asked to do a simple maneuver that can demonstrate incontinence: close your mouth, pinch your nose shut and exhale hard.

After that, your doctor will likely recommend:

- **Urinalysis.** A sample of your urine is checked for signs of infection, traces of blood or other abnormalities.
- **Bladder diary.** For several days you record how much you drink, when you urinate, the amount of urine you produce, whether you had an urge to urinate and the number of incontinence episodes.
- **Post-void residual measurement.** You're asked to urinate (void) into a container that measures urine output. Then your doctor checks the amount of leftover urine in your bladder using a catheter or ultrasound test. A large amount of leftover urine in your bladder may mean that you have an obstruction in your urinary tract or a problem with your bladder nerves or muscles.

## Special testing

If further information is needed, your doctor may recommend:

- **Urodynamic testing.** A doctor or nurse inserts a catheter into your urethra and bladder to fill your bladder with water. Meanwhile, a pressure monitor measures and records the pressure within your bladder. This test helps measure your bladder strength and urinary sphincter health, and it's an important tool for distinguishing the type of incontinence you have.
- **Cystoscopy.** Your doctor inserts a thin tube with a tiny lens into your urethra. Your doctor can check for, and possibly remove, abnormalities in your urinary tract.
- **Cystogram.** Your doctor inserts a catheter into your urethra and bladder and injects a special dye. As you urinate and expel this fluid, X-ray images of your bladder help reveal problems with your urinary tract.
- **Pelvic ultrasound.** Your urinary tract or genitals are checked for abnormalities.

Treatment for urinary incontinence depends on the type of incontinence, its severity and the underlying cause. A combination of treatments may be needed. Your doctor is likely to suggest the least invasive treatments first and move on to other options only if these techniques fail.

## Behavioral techniques

Your doctor may recommend:

- **Bladder training**, to delay urination after you get the urge to go. You may start by trying to hold off for 10 minutes every time you feel an urge to urinate. The goal is to lengthen the time between trips to the toilet until you're urinating only every two to four hours.
- **Double voiding**, to help you learn to empty your bladder more completely to avoid overflow incontinence. Double voiding means urinating, then waiting a few minutes and trying again.
- **Scheduled toilet trips**, to urinate every two to four hours rather than waiting for the need to go.
- **Fluid and diet management**, to regain control of your bladder. You may need to cut back on or avoid alcohol, caffeine or acidic foods. Reducing liquid consumption, losing weight or increasing physical activity also can ease the problem.

## **Pelvic floor muscle exercises**

Your doctor may recommend that you do these exercises frequently to strengthen the muscles that help control urination. Also known as Kegel exercises, these techniques are especially effective for stress incontinence but may also help urge incontinence.

To do pelvic floor muscle exercises, imagine that you're trying to stop your urine flow. Then:

- Tighten (contract) the muscles you would use to stop urinating and hold for five seconds, and then relax for five seconds. (If this is too difficult, start by holding for two seconds and relaxing for three seconds.)
- Work up to holding the contractions for 10 seconds at a time.
- Aim for at least three sets of 10 repetitions each day.

To help you identify and contract the right muscles, your doctor may suggest you work with a physical therapist or try biofeedback techniques.

## **Electrical stimulation**

Electrodes are temporarily inserted into your rectum or vagina to stimulate and strengthen pelvic floor muscles. Gentle electrical stimulation can be effective for stress incontinence and urge incontinence, but you may need multiple treatments over several months.

## **Medications**

Medications commonly used to treat incontinence include:

- **Anticholinergics.** These medications can calm an overactive bladder and may be helpful for urge incontinence. Examples include oxybutynin (Ditropan XL), tolterodine (Detrol), darifenacin (Enablex), fesoterodine (Toviaz), solifenacin (Vesicare) and trospium (Sanctura).
- **Mirabegron (Myrbetriq).** Used to treat urge incontinence, this medication relaxes the bladder muscle and can increase the amount of urine your bladder can hold. It may also increase the amount you are able to urinate at one time, helping to empty your bladder more completely.
- **Alpha blockers.** In men with urge or overflow incontinence, these medications relax bladder neck muscles and muscle fibers in the prostate and make it easier to empty the bladder. Examples include tamsulosin (Flomax), alfuzosin (Uroxatral), silodosin (Rapaflo), terazosin (Hytrin) and doxazosin (Cardura).
- **Topical estrogen.** Applying low-dose, topical estrogen in the form of a vaginal cream, ring or patch may help tone and rejuvenate tissues in the urethra and vaginal areas. This may reduce some of the symptoms of incontinence.

## Medical devices

Devices designed to treat women with incontinence include:

- **Urethral insert,** a small, tampon-like disposable device inserted into the urethra before a specific activity, such as tennis, that can trigger incontinence. The insert acts as a plug to prevent leakage, and is removed before urination.
- **Pessary,** a stiff ring that you insert into your vagina and wear all day. The device helps hold up your bladder, which lies near the vagina, to prevent urine leakage. You may benefit from a pessary if you have incontinence due to a prolapsed bladder or uterus.

## Interventional therapies

Interventional therapies that may help with incontinence include:

- **Bulking material injections.** A synthetic material is injected into tissue surrounding the urethra. The bulking material helps keep the urethra closed and reduce urine leakage. This procedure is generally much less effective than more-invasive treatments such as surgery for stress incontinence and usually needs to be repeated regularly.
- **Botulinum toxin type A (Botox).** Injections of Botox into the bladder muscle may benefit people who have an overactive bladder. Botox is generally prescribed to people only if other first line medications haven't been successful.
- **Nerve stimulators.** A device resembling a pacemaker is implanted under your skin to deliver painless electrical pulses to the nerves involved in bladder control (sacral

nerves). Stimulating the sacral nerves can control urge incontinence if other therapies haven't worked. The device may be implanted under the skin in your buttock and connected directly to the sacral nerves or may deliver pulses to the sacral nerve via a nerve in the ankle.

## Surgery

If other treatments aren't working, several surgical procedures can treat the problems that cause urinary incontinence:

- **Sling procedures.** Strips of your body's tissue, synthetic material or mesh are used to create a pelvic sling around your urethra and the area of thickened muscle where the bladder connects to the urethra (bladder neck). The sling helps keep the urethra closed, especially when you cough or sneeze. This procedure is used to treat stress incontinence.
- **Bladder neck suspension.** This procedure is designed to provide support to your urethra and bladder neck — an area of thickened muscle where the bladder connects to the urethra. It involves an abdominal incision, so it's done during general or spinal anesthesia.
- **Prolapse surgery.** In women with mixed incontinence and pelvic organ prolapse, surgery may include a combination of a sling procedure and prolapse surgery.
- **Artificial urinary sphincter.** In men, a small, fluid-filled ring is implanted around the bladder neck to keep the urinary sphincter shut until you're ready to urinate. To urinate, you press a valve implanted under your skin that causes the ring to deflate and allows urine from your bladder to flow. Artificial urinary sphincters are particularly helpful for men whose incontinence is associated with treatment of prostate cancer or an enlarged prostate gland.

## Absorbent pads and catheters

If medical treatments can't completely eliminate your incontinence, you can try products that help ease the discomfort and inconvenience of leaking urine:

- **Pads and protective garments.** Most products are no more bulky than normal underwear and can be easily worn under everyday clothing. Men who have problems with dribbles of urine can use a drip collector — a small pocket of absorbent padding that's worn over the penis and held in place by close-fitting underwear.
- **Catheter.** If you're incontinent because your bladder doesn't empty properly, your doctor may recommend that you learn to insert a soft tube (catheter) into your urethra several times a day to drain your bladder. You'll be instructed on how to clean these catheters for safe reuse.

Problems with urine leakage may require you to take extra care to prevent skin irritation:

- Use a washcloth to clean yourself
- Allow your skin to air-dry
- Avoid frequent washing and douching because these can overwhelm your body's natural defenses against bladder infections
- Consider using a barrier cream, such as petroleum jelly or cocoa butter, to protect your skin from urine

If you have urge incontinence or nighttime incontinence, make the toilet more convenient:

- Move any rugs or furniture you might trip over or collide with on the way to the toilet
- Use a night light to illuminate your path and reduce your risk of falling

If you have functional incontinence, you might:

- Keep a bedpan in your bedroom
- Install an elevated toilet seat
- Widen an existing bathroom doorway

There are no alternative medicine therapies that have been proved to cure urinary incontinence. Initial pilot studies have shown that acupuncture can provide some short-term benefit, but more research is needed.