

## Overactive Bladder

Overactive bladder is a problem with bladder-storage function that causes a sudden urge to urinate. The urge may be difficult to stop, and overactive bladder may lead to the involuntary loss of urine (incontinence).

If you have an overactive bladder, you may feel embarrassed, isolate yourself, or limit your work and social life. The good news is that a brief evaluation can determine whether there's a specific cause for your overactive bladder symptoms.

Management of overactive bladder often begins with behavioral strategies, such as fluid schedules, timed voiding and bladder-holding techniques using your pelvic floor. If these initial efforts don't help enough with your overactive bladder symptoms, second line and third line treatments are available.

With an overactive bladder, you may:

- Feel a sudden urge to urinate that's difficult to control
- Experience urge incontinence — the involuntary loss of urine immediately following an urgent need to urinate
- Urinate frequently, usually eight or more times in 24 hours
- Awaken two or more times in the night to urinate (nocturia)

Although you may be able to get to the toilet in time when you sense an urge to urinate, unexpected frequent urination and nighttime urination can disrupt your life.

### When to see a doctor

Although it's common among older adults, overactive bladder isn't a normal part of aging. If your symptoms distress you, consider behavior strategies and management options. Treatments are available that might help you.

Discussing such a private matter with your doctor might not be easy, but it's worthwhile to take that risk — especially if your symptoms disrupt your work schedule, social interactions and everyday activities.

### Normal bladder function

The kidneys produce urine, which drains into your bladder. When you urinate, urine passes from your bladder through an opening at the bottom and flows out a tube called the urethra (u-REE-thruh). In women, the urethral opening is located just above the vagina. In men, the urethral opening is at the tip of the penis.

As your bladder fills, nerve signals sent to your brain eventually trigger the need to urinate. When you urinate, nerve signals coordinate the relaxation of the pelvic floor muscles and the muscles of the urethra (urinary sphincter muscles). The muscles of the bladder tighten (contract), pushing the urine out.

## **Involuntary bladder contractions**

Overactive bladder occurs because the muscles of the bladder start to contract involuntarily even when the volume of urine in your bladder is low. This involuntary contraction creates the urgent need to urinate.

Several conditions may contribute to signs and symptoms of overactive bladder, including:

- Neurological disorders, such as Parkinson's disease, strokes and multiple sclerosis
- High urine production as might occur with high fluid intake, poor kidney function or diabetes
- Medications that cause a rapid increase in urine production or require that you take them with lots of fluids
- Acute urinary tract infections that can cause symptoms similar to an overactive bladder
- Abnormalities in the bladder, such as tumors or bladder stones
- Factors that obstruct bladder outflow — enlarged prostate, constipation or previous operations to treat other forms of incontinence
- Excess consumption of caffeine or alcohol
- Declining cognitive function due to aging, which may make it more difficult for your bladder to understand the signals it receives from your brain
- Difficulty walking, which can lead to bladder urgency if you're unable to get to the bathroom quickly
- Incomplete bladder emptying, which may lead to symptoms of overactive bladder, as you have little urine storage space left
- Constipation

Often, the specific cause of an overactive bladder isn't known.

As you age, you're at increased risk of developing overactive bladder. You're also at higher risk of diseases and disorders, such as enlarged prostate and diabetes, which can contribute to other problems with bladder function.

Many people with cognitive decline — for instance, after a stroke or with Alzheimer's disease — develop an overactive bladder. Incontinence that results from situations like

this can be managed with fluid schedules, timed and prompted voiding, absorbent garments, and bowel programs.

Some people with an overactive bladder also have bowel control problems; tell your doctor if this is a problem for you.

Any type of incontinence can affect your overall quality of life. If your overactive bladder symptoms cause a major disruption to your life, you might also have:

- Emotional distress
- Depression
- Sleep disturbances and interrupted sleep cycles

Your doctor might recommend treatment of associated conditions, but it's unknown whether effective treatment of an associated condition will help with your urinary symptoms.

Some women also may have a disorder called mixed incontinence, when both urge and stress incontinence occur. Stress incontinence is the loss of urine when you exert physical stress or pressure on your bladder, such as during activities that include running or jumping. Treatment of the stress incontinence is not likely to help the overactive bladder symptoms.

Older people may have a common combination of bladder storage and bladder-emptying issues. The bladder may cause a lot of urgency and even incontinence, but it doesn't empty well. A specialist may be able to help you with this combination of bladder problems.

If you have an abnormal urge to urinate, your doctor will check to make sure that you don't have an infection or blood in your urine. Your doctor may also want to make sure that you're emptying your bladder completely when you urinate.

Your doctor will look for clues that might also indicate contributing factors. The work-up will likely include a:

- Medical history
- Physical exam, focusing on your abdomen and genitals
- Urine sample to test for infection, traces of blood or other abnormalities
- Focused neurological exam that may identify sensory problems or abnormal reflexes

## **Special tests**

Your doctor may order a simple urodynamic test to assess the function of your bladder and its ability to empty steadily and completely. These tests usually require a referral to a specialist. Tests include:

- **Measuring urine left in the bladder.** This test is important if your bladder doesn't empty completely when you urinate or experience urinary incontinence. Remaining urine (postvoid residual urine) may cause symptoms identical to an overactive bladder.

To measure residual urine after you have voided, your doctor may request an ultrasound scan of your bladder or pass a thin tube (catheter) through the urethra and into your bladder to drain and measure the remaining urine.

- **Measuring urine flow rate.** To measure the volume and speed of your voiding, you may be asked to urinate into a uroflowmeter. This device translates the data into a graph of changes in your flow rate.
- **Testing bladder pressures.** Cystometry measures pressure in your bladder and in the surrounding region during bladder filling. During this test, your doctor uses a thin tube (catheter) to fill your bladder slowly with warm water. Another catheter with a pressure-measuring sensor is placed in your rectum or, if you're a woman, in your vagina.

This procedure can identify whether you have involuntary muscle contractions or a stiff bladder that's not able to store urine under low pressure. You may be asked to void during the study (pressure-flow study), which can also measure the pressure used to empty your bladder and indicate whether or not you have a bladder blockage (obstruction). An obstruction — from an enlarged prostate in men or pelvic organ prolapse in women — can lead to symptoms of overactive bladder.

This test is generally used for people who have neurologic diseases that affect the spinal cord.

Your doctor will review the results of any tests with you and suggest a treatment strategy.

Your doctor is likely to recommend a combination of treatment strategies to relieve your symptoms.

## **Behavioral interventions**

Behavioral interventions are the first choice in helping manage an overactive bladder. They're often effective, and they carry no side effects. Behavioral interventions may include:

- **Pelvic floor muscle exercises.** Kegel exercises strengthen your pelvic floor muscles and urinary sphincter. These strengthened muscles can help you stop the bladder's involuntary contractions. Your doctor or a physical therapist can help you learn how to do Kegel exercises correctly. It may take as long as six to eight weeks before you notice a difference in your symptoms.
- **Healthy weight.** If you're overweight, losing weight may ease your symptoms. Weight loss may help if you also have stress urinary incontinence.
- **Fluid consumption.** Your doctor may recommend that you cap the fluids you consume at a certain amount and may suggest appropriate times during which to consume them.
- **Double voiding.** To help empty your bladder more completely, you wait a few minutes after urinating and then try again to empty your bladder again.
- **Scheduled toilet trips.** Setting a schedule for toileting — for example, every two to four hours — gets you on track to urinate at the same times every day rather than waiting until you feel the urge to urinate.
- **Intermittent catheterization.** Using a catheter periodically to empty your bladder completely helps your bladder do what it can't do by itself. Ask your doctor if this approach is right for you.
- **Absorbent pads.** Wearing absorbent pads or undergarments can protect your clothing and help you avoid embarrassing incidents, which means that you won't have to limit your activities. Absorbent garments come in a variety of sizes and absorbency levels.
- **Bladder training.** Bladder training involves training yourself to delay voiding when you feel an urge to urinate. You begin with small delays, such as 30 minutes, and gradually work your way up to urinating every three to four hours. Bladder training is possible only if you're able to tighten (contract) your pelvic floor muscles successfully.

## Medications

Medications that relax the bladder can be helpful for relieving symptoms of overactive bladder and reducing episodes of urge incontinence. These drugs include:

- Tolterodine (Detrol)
- (Ditropan XL)
- Oxybutynin as a skin patch (Oxytrol)
- Oxybutynin gel (Gelnique)

- Trospium (Sanctura)
- Solifenacin (Vesicare)
- Darifenacin (Enablex)
- Mirabegron (Myrbetriq)
- Fesoterodine (Toviaz)

Common side effects of most of these drugs include dry eyes and dry mouth, but drinking water to quench thirst can aggravate symptoms of overactive bladder.

Constipation — another potential side effect — can aggravate your bladder symptoms. Extended-release forms of these medications, including the skin patch or gel, may cause fewer side effects.

Treating the side effects of a medication that's working is more important than stopping the medication. For example, your doctor may recommend that you suck on a piece of sugar-free candy or chew sugar-free gum to relieve dry mouth, and use eyedrops to keep your eyes moist.

Over-the-counter preparations, such as Biotene products, can be helpful for long-term dry mouth. To avoid constipation, your doctor might recommend a fiber-rich diet or use of stool softeners.

Bladder medications aren't likely to help with getting up during the night to urinate. Often, this isn't a problem with the bladder at all, rather it's related to the way your kidneys and heart manage your body fluids — which can change over time. As you get older, you may make as much or more urine at night than you do during the day.

## **Bladder injections**

OnabotulinumtoxinA (ON-ah-boch-yoo-lih-num-tox-in-A), also called Botox, is a protein from the bacteria that cause botulism illness. Used in small doses directly injected into bladder tissues, this protein partially paralyzes muscles.

Clinical research shows that it may be useful for severe urge incontinence. But it's not approved by the Food and Drug Administration for this purpose in people without neurological disease. The effects are temporary, lasting only about six to nine months.

This medication also carries a risk of worsening bladder emptying in older adults and people already weakened by other health problems. If you're considering Botox treatments, you should be willing and able to catheterize yourself if urinary retention occurs.

## **Nerve stimulation**

Regulating the nerve impulses to your bladder can improve overactive bladder symptoms.

One procedure uses a thin wire placed close to the sacral nerves — which carry signals to your bladder — where they pass near your tailbone.

This surgical procedure is often done with a trial of a temporary wire or as an advanced procedure in which the permanent electrode is implanted and a longer trial is performed prior to a surgical placement of the battery-powered pulse generator. Your doctor then uses a device connected to the wire to deliver electrical impulses to your bladder, similar to what a pacemaker does for the heart.

If this successfully reduces your symptoms, the wire is eventually connected to a small battery device that's placed under your skin.

## Surgery

Surgery to treat overactive bladder is reserved for people with severe symptoms who don't respond to other treatments. The goal is to improve the bladder's storing ability and reduce pressure in the bladder. However, these procedures won't help relieve bladder pain. Interventions include:

- **Surgery to increase bladder capacity.** This procedure uses pieces of your bowel to replace a portion of your bladder. This surgery is used only in cases of severe urge incontinence that doesn't respond to any other, more conservative treatment measures. If you have this surgery, you may need to use a catheter intermittently for the rest of your life to empty your bladder.
- **Bladder removal.** This procedure is used as a last resort and involves removing the bladder and surgically constructing a replacement or an opening in the body (stoma) to attach a bag on the skin to collect urine.

These lifestyle changes may help reduce your symptoms:

- **Maintain a healthy weight.** If you're overweight, losing weight may ease your symptoms. Heavier people are also at greater risk of stress urinary incontinence, which may improve with weight loss.
- **Follow a fluid schedule.** Ask your doctor how much fluid you need daily. People who are safely able to reduce their fluid intake by about 25 percent may experience a decrease in overactive bladder symptoms.
- **Avoid caffeine and alcohol.** If caffeinated and alcoholic beverages worsen your symptoms, it might be wise to avoid them.

No complementary or alternative therapies have been proved to successfully treat overactive bladder. Research suggests that therapies such as reflexology and hypnotherapy aren't effective in treating this condition.

Complementary treatments that might be helpful include:

- **Biofeedback.** During biofeedback, you're connected to electrical sensors that help you measure and receive information about your body. The biofeedback sensors teach you how to make subtle changes in your body, such as strengthening your pelvic muscles so that when you have feelings of urgency you're better able to suppress them.
- **Acupuncture.** Acupuncture practitioners treat you using extremely thin, disposable needles. One small study suggested that acupuncture might help ease the symptoms of overactive bladder.

Complementary treatments may not be covered by insurance, so check your plan carefully.