

Overactive Bladder (OAB)

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

Signs and symptoms of overactive bladder may mean you:

- Feel a strong, sudden urge to urinate
- 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)

Normal Bladder Function

Filling and emptying your bladder is a complex interplay of kidney function, nerve signals and muscle activity. A problem anywhere in this system can contribute to overactive bladder and urge incontinence.

It all starts with your kidneys, which produce urine. Urine leaves the kidneys and travels down a pair of long tubes to your bladder. Urine drains from your bladder through an opening at the bottom (neck) and flows out a short tube called the urethra. In women, the urethral opening is located just above the vagina.

Your bladder expands like a balloon to accommodate urine from the kidneys. When it's reached about a third of its capacity, nerve signals alert your brain, and you sense that your bladder is starting to fill. As it fills more, you'll feel the need to urinate (void). When you urinate, nerve signals coordinate the relaxation of the pelvic floor muscles and the muscles surrounding the neck of the bladder and upper portion of the urethra (urinary sphincter muscles). The muscles of the bladder contract, forcing urine out.

Involuntary Bladder Contractions

The symptoms of overactive bladder occur in most cases because the muscles of the bladder involuntarily contract. This contraction creates the urgent need to urinate. However, in some people, this urge is purely sensory, meaning that you might feel the need to void even though the muscles aren't contracting.

Several factors may cause or contribute to signs and symptoms similar to those of overactive bladder. Your doctor may try to rule them out during an evaluation because they require other specialized treatments. These factors include:

- Neurological disorders, such as Parkinson's disease, strokes, and multiple sclerosis, are often associated with an overactive bladder.
- High urine production as might occur with high fluid intake, poor kidney function or diabetes

- Acute urinary tract infections that can cause symptoms very similar to an overactive bladder
- Abnormalities in the bladder, such as tumors or bladder stones
- Factors that obstruct bladder outflow – constipation or previous operations to treat other forms of incontinence
- Excess consumption of caffeine or alcohol
- Medications that cause a rapid increase in urine production or require that you take them with lots of fluids

Risk Factors

As you grow older, you're at increased risk of developing overactive bladder, and you're also more susceptible to diseases and disorders that can contribute to other problems with bladder function, such as diabetes. Although common among older adults, an overactive bladder isn't considered a normal part of aging.

Complications

As might be expected, urge and any urge-associated incontinence can affect your overall quality of life, and can also be detrimental to your well-being. People with significant disruption from an overactive bladder are more susceptible to:

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

Some people may also have a disorder called mixed incontinence, when both urge incontinence and stress incontinence occur. Stress incontinence is the loss of urine when you exert physical stressors or pressure on your bladder, as when you cough or laugh.

Tests and Diagnosis

In a basic diagnostic work-up, your doctor will look for clues that may also indicate contributing factors. The exam will likely include:

- A medical history
- A physical examination with particular focus on your abdomen and genitals
- A urine sample to test for infection, traces of blood or other abnormalities

Specialized tests

Your doctor may order urodynamic tests, which are used to assess the function of your bladder and its ability to empty itself steadily and completely.

- **Measuring urine left in the bladder.** When you urinate or experience urinary incontinence, your bladder may not empty completely. The remaining urine (postvoid residual urine) may cause symptoms identical to an overactive bladder. To measure residual urine after you have voided, a thin tube (catheter) is passed through the urethra into your bladder. The catheter drains the remaining urine, which can then be measured.

- **Measuring urine flow rate.** A uroflometer is a device into which you urinate to measure the volume and speed of your voiding. This device translates the data into a graph of changes in your flow rate.
- **Testing bladder pressure.** Cystometry measures bladder pressure during filling. Pressure-flow studies measure the amount of pressure needed to urinate and the speed of the urine flow. A catheter is used to fill your bladder slowly with water. Another catheter with a pressure-measuring sensor is placed in your vagina. This procedure can identify involuntary muscle contractions, indicate the level of pressure at which you feel an urge or experience leakage, and measure pressure used to empty your bladder.
- **Measuring bladder nerve impulses.** Electromyography assesses the coordination of nerve impulses in the muscles of the bladder and the urinary sphincter. Sensors are placed either on or in the skin of your pelvic floor.
- **Looking inside the bladder.** A cystoscope, a thin tube with a tiny lens, enables your doctor to see the inside of your urethra and bladder. With the aid of this device, your doctor can check for abnormalities in your lower urinary tract, such as bladder stones or tumors.

After reviewing the results of these tests, a treatment strategy can be suggested.

Treatment and Drugs

It is sometimes necessary to use a combination of treatment strategies to alleviate your symptoms.

Behavioral interventions are the first line in helping you manage your overactive bladder. If you experience urge incontinence, these interventions alone aren't likely to result in complete dryness, but they may significantly reduce the number of incontinence episodes. The interventions your doctor recommends may cover the following areas:

- **Fluid consumption.** Your doctor may recommend the amount and timing of your fluid consumption.
- **Bladder training.** Occasionally, your doctor may recommend a strategy to train yourself to delay voiding when you feel an urge to urinate. You'll begin with very small delays, such as 10 minutes, and gradually work your way up to urinating every three to five hours.
- **Scheduled toilet trips.** Your doctor may recommend a schedule for toileting so that you urinate at the same times every day – every two to four hours as recommended – rather than when you feel the urge to urinate.
- **Pelvic floor muscle exercises.** Exercises called Kegel exercises strengthen your pelvic floor muscles and urinary sphincter – muscles that are critical for holding urine even if your bladder muscles involuntarily contract. These strengthened muscles are then contracted when you feel urge so that you can successfully suppress 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.

- **Intermittent catheterization.** You can learn how to empty your bladder by passing a catheter periodically to empty it completely. Using a catheter simply helps the bladder do what it can't do itself. Your doctor can tell you if this is right for you.
- **Absorbent pads.** You can wear absorbent pads or undergarments to protect your clothing and avoid embarrassing incidents if you do experience incontinence. In addition, the use of pads means that you won't have to limit your activities due to your symptoms.

Medications

See medications handout if this applies to you

Sacral Nerve Stimulation - Interstim

The sacral nerves carry signals between the spinal cord and nerves in the bladder's tissues. Modulation of these nerve impulses can improve overactive bladder symptoms. In this procedure, a thin wire is placed close to the sacral nerves where they pass near your tailbone. 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 successful at reducing your symptoms, the wire is eventually connected to a small battery device that's placed under your skin.

Alternative Medicine

No complementary or alternative therapies have been proven to successfully treat overactive bladder. Research suggests that therapies such as reflexology and hypnotherapy aren't effective in treating this condition. Some alternative treatment 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 contracting your pelvic muscles in response to feelings of urgency, and avoiding the impending incontinence.
- **Acupuncture.** Acupuncture practitioners treat you using extremely thin, disposable needles. One small study suggested that acupuncture might help ease the symptoms of overactive bladder.

Coping and Support

Living with overactive bladder can be difficult. Consumer education and advocacy support groups such as the National Association for Continence (NAFC) can provide you with online resources and information, connecting you with people who experience overactive bladder and urge incontinence. Support groups offer a venue for voicing concerns and learning new coping strategies, and often provide motivation to maintain self-care strategies.

Prevention

These healthy lifestyle choices may reduce your risk of overactive bladder:

- Get regular, daily exercise.
- Limit consumption of caffeine and alcohol.
- Quit smoking.
- Manage chronic conditions, such as diabetes, that might contribute to overactive bladder symptoms.
- Learn where your pelvic floor muscles are and then strengthen them by doing Kegel exercises – do three sets of eight to twelve contractions, holding them for six to eight seconds each, at least three to four times a week.