



National Association For Continence

Overactive Bladder (OAB) and Urge Incontinence

How to Best Regain Control

Promoting Quality
Continence Care through

Consumer Education

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National Association For Continence

www.nafc.org

About NAFC

NAFC is the world's largest and most prolific consumer advocacy organization dedicated to public education and awareness about bladder and bowel control problems, voiding dysfunction including retention, nocturia and bedwetting, and related pelvic floor disorders such as prolapse.

This material is based on professional advice, published experience and research, and expert opinion. It does not represent individual therapeutic recommendations or prescription. For specific medical advice, consult your personal physician or other knowledgeable healthcare provider. NAFC does not endorse any products and services of third parties through this publication or otherwise. For further information, visit www.nafc.org or call us at 1-800-BLADDER (1-800-252-3337).

Overactive Bladder (OAB) and Urge Incontinence

How to Best Regain Control

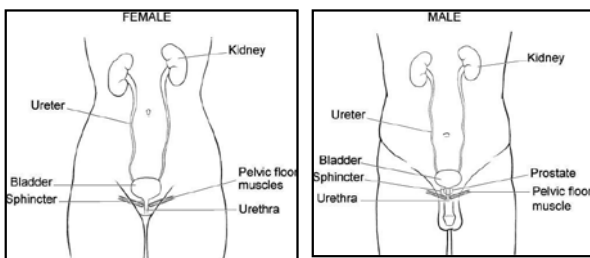
The International Continence Society (ICS) defines **overactive bladder (OAB)** as “urgency, with or without urge incontinence, usually with frequency and nocturia.”

Typical symptoms of OAB include:

- urinating more than eight times per day or more than once at night (urinary frequency)
- and a strong and sudden desire to urinate (urinary urgency).

If the urge to urinate cannot be controlled before reaching the toilet, OAB can result in **urge urinary incontinence** (involuntarily emptying the contents of the bladder).

Urge urinary incontinence (UUI) is defined as the unwanted urine loss that happens shortly after the sudden, intense desire to urinate. An estimated 33 million people in the United States suffer from OAB and an estimated 12.2 million of these adults have urge incontinence. In addition to the physical symptoms experienced, the real impact for people with OAB and/or urge urinary incontinence is felt in the decline of quality of life. If left untreated, OAB can prevent normal living 24 hours a day.



Female and Male Anatomy of Urinary System

Urge UI is caused by involuntary bladder contractions that occur as your bladder fills with urine continually flowing from the kidneys via tiny tubes, or ureters. With urge UI, a person may be suddenly aware of the urge sensation but is unable to get to the toilet before losing control of his or her urine. Urine loss can be in large amounts that soak underwear and even outer clothing. In some cases, people who have physical limitations, such as arthritis, may not be able to reach the toilet in time, causing an accident. This may not be urge incontinence or the result of OAB.

In many cases, the underlying cause of OAB - why the bladder muscle malfunctions in this way - remains unclear. It is known that in men, prostate enlargement (BPH) can contribute to OAB. For others, there may be a neurological obstacle that interferes with the signals running from the brain to the bladder, causing what is called **neurogenic OAB**. This can occur in stroke survivors. There are also ill-defined aspects of the aging process itself that may cause deterioration of the body's network of nerves. Whatever the cause, it is important for those with OAB to know that the condition can and should be addressed. Identifiable underlying causes include the following:

- Drug side effects
- Neurological disease or damage (e.g., multiple sclerosis, Parkinson's disease, stroke, spinal cord lesions)
- Bladder stones

An additional symptom of OAB seen very often - especially in older people - is **nocturia**, awakening more than once at night to urinate, which will often disrupt sleep. Nocturia affects men and women of all ages, although its incidence increases significantly with age.

Please note: If you are experiencing symptoms of OAB (urgency and frequency), be sure to go to your doctor to investigate the cause of your symptoms because urinary tract infections can produce the same symptoms as OAB. If you have recurring symptoms such as severe bladder pain, burning, urgency, pain during sexual intercourse, and frequency, but your physician cannot verify the presence of a urinary tract infection, you may have interstitial cystitis (IC). Individuals who may have IC should seek the advice of a specialist.

Stress urinary incontinence (SUI), the other main type of bladder control problem, may occur in addition to OAB and urge incontinence. SUI involves involuntary urine leakage while engaging in activities that exert pressure on the bladder, such as lifting, coughing, sneezing, or running. The combination of both urge incontinence and stress incontinence is referred to as **mixed incontinence**. The treatment of mixed incontinence involves a combination of both the treatments for urge and stress incontinence.

How to Prepare for a Doctor's Appointment

If you have a bladder control problem, a variety of medical professionals can assist you in addressing the problem, such as your primary care provider or a urologist.

To prepare for your doctor's appointment, you may want to record your symptoms in a bladder diary (available through NAFC) for about 2 days. You should also make a list of all of your doctors, medical conditions, past operations or procedures, and medications you are taking including over-the-counter medicines. Be prepared to describe how incontinence affects your daily life and those aspects most bothersome to you.

To order educational materials from NAFC, visit the online store at www.nafc.org or call 1-800-BLADDER (1-800-252-3337).

Treatment

OAB and urge urinary incontinence are generally treated with one or a combination of two or more approaches:

- Behavioral modifications: dietary changes, fluid management, pelvic muscle exercises, biofeedback, and/or bladder retraining
- Drug therapy
- Percutaneous tibial nerve stimulation
- Sacral nerve stimulation

Dietary Changes



There is no “diet” to cure incontinence, however, diet can have a profound effect on your voiding patterns.

Well-known bladder irritants are caffeine, alcohol, and artificial sweeteners. Elimination of one or all of these items may help reduce your symptoms. While not demonstrated scientifically, other foods and beverages are thought to contribute to bladder control problems in some, but not all, people. You should broadly consider categories of foods and beverages that have a high acid (citrus juices or citrus fruits) or high sugar content or are highly spicy as potential culprits.

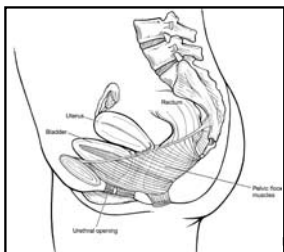
Drink plenty of water. Some people who have bladder control problems may reduce the amount of liquids they drink in the hope that they will need to urinate less often. Decreasing your liquid consumption causes urine to be more highly concentrated and thus, irritating to the bladder lining. It is recommended that you drink a total of six to eight 8-ounce glasses of fluid throughout the day.

In addition to diet, constipation may also contribute to or cause OAB, so be sure to talk to your doctor if you are not having regular bowel movements. Increasing fluids and dietary fiber can help.

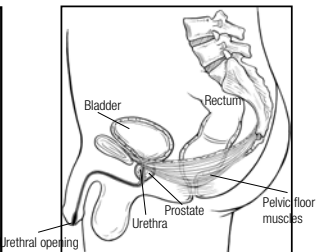
Pelvic Muscle Exercises

Pelvic muscle exercises are a central element of behavioral treatment techniques that help increase bladder control and decrease bladder leakage. While these exercises are often practiced to prevent or alleviate symptoms of stress urinary incontinence, they can also be helpful if you have OAB or urge incontinence.

Various devices and techniques have been developed to help you locate, exercise, and



Female Anatomy



Male Anatomy

rehabilitate the correct muscles. These include biofeedback training and, for women, vaginal weights and wands. Talk to your healthcare provider about biofeedback and other ways to maximize success with your pelvic muscle-strengthening program. Doing pelvic floor muscle exercises should become a lifelong passion, both for continence and sexual vitality!

Bladder Retraining

Many studies over the years have supported the success of bladder retraining programs for urge incontinence and OAB for both women and men. And while you should consult your doctor before trying any therapy mentioned in our literature, note that bladder retraining can be done at home and without the help of a physician.

The goal of bladder retraining is to slowly increase the time between voids, therefore decreasing the number of trips you must make to the bathroom during the day. NAFC has published a 6-week nurse-authored Bladder Retraining Program, which has been fully researched for effectiveness. This program involves recording bathroom habits in a daily diary and learning to control the urge to urinate. Patients must be functional, highly motivated, and persistent for bladder retraining to be effective.

In addition to bladder retraining, there are several tips for “good toileting habits”:

- ✔ Use the toilet every 2½ to 3½ hours.
- ✔ Wear clothes that are easy to get open or removed to use the toilet.
- ✔ Remain on the toilet until your bladder is empty. If you feel there is still some urine in your bladder, stand up and then sit back down again and lean forward slightly over the knees.
- ✔ Make toilet facilities convenient and safe. This may mean a bedside commode, bedpan, or urinal placed conveniently near or in the bed.
- ✔ Empty your bladder before you start on a journey of an hour or more. Don't try to “wait until I get home to my own bathroom.” Map out the public toilets in advance of visiting a new destination to avoid anxiety about finding one.
- ✔ To prevent falls, avoid rushing or running to the toilet.

Medications

Drugs with anticholinergic and bladder muscle relaxant effects are often prescribed to relieve symptoms of urgency and frequency.

These drugs may have side-effects including dry mouth, constipation, blurred vision, and urinary retention. To minimize side-effects, extended-release formulations and transdermal patches for drug delivery have been developed.

Medication	Brand name	Dosage
Oxybutynin (generic)	Ditropan®	2.5 - 5 mg 2 - 4 times per day
Oxybutynin extended-release	DitropanXL®	5 - 30 mg once daily
Oxybutynin extended-release transdermal patch	OXYTROL®	3.9 mg/day system applied twice weekly (every 3-4 days)
Tolterodine	Detrol®	1 - 2 mg twice daily
Tolterodine extended-release	Detrol LA®	2 - 4 mg once daily
Darifenacin	ENABLEX®	7.5-15 mg once daily
Solifenacin	VESIcare®	5-10 mg once daily
Trospium chloride	Sanctura®	20 mg twice daily
Trospium chloride extended-release	Sanctura XR®	60 mg once daily

The FDA has recently approved once-daily TOVIAZ™ (fesoterodine fumarate) for treating OAB symptoms. Already available in Europe, TOVIAZ exhibited benefits as early as week two in clinical trials, in which a low incidence of constipation was witnessed.

Anticholinergic drugs represent a broad category of pharmaceutical agents, including some of the medications used for allergic reactions, diarrhea, depression, and OAB. Several recent studies have raised concerns about possible memory decline in older persons taking anticholinergic medications over a number of years. Studies are ongoing to assess the degree of risk of memory decline from medications used for OAB.

Research demonstrates that combining behavioral therapies, such as pelvic muscle exercises and bladder retraining, with medication for OAB is more effective in treating OAB and urge incontinence than either behavioral therapy or taking medication alone.

While medications are often prescribed for OAB, several classes of medicines for other conditions may cause unwanted changes in bladder control. When discussing your symptoms, be sure to mention to your doctor if you are taking other medications.

Percutaneous tibial nerve stimulation, Urgent® PC Neuromodulation

Individuals with urge incontinence who have not responded to medication and/or behavioral treatment and who do not want to have surgery may be a candidate for percutaneous tibial nerve stimulation (PTNS). PTNS involves the delivery of electrical stimulation to the sacral nerve via the tibial nerve. PTNS is also called The Urgent® PC Neuromodulation System, and many patients respond positively to this therapy.



Uroplasty Urgent® PC- office based electrical stimulation

PTNS is an in-office procedure that uses a stimulator, which generates an electrical impulse that is delivered to the patient through a lead set. Using a needle electrode placed near the ankle as an entry point, the stimulator's impulses alter the activity of the bladder by traveling along the tibial nerve to the nerves in the spine that control pelvic floor function. Each treatment lasts approximately 30 minutes, in an initial series of 12 treatments, typically scheduled a week apart. After the initial 12 treatments, your healthcare professional will discuss your response to the PTNS treatments and determine how often future treatments are needed to maintain results.

The Urgent® PC Neuromodulation System is designed to treat urinary urgency, urinary frequency and urge incontinence, symptoms associated with OAB and interstitial cystitis.

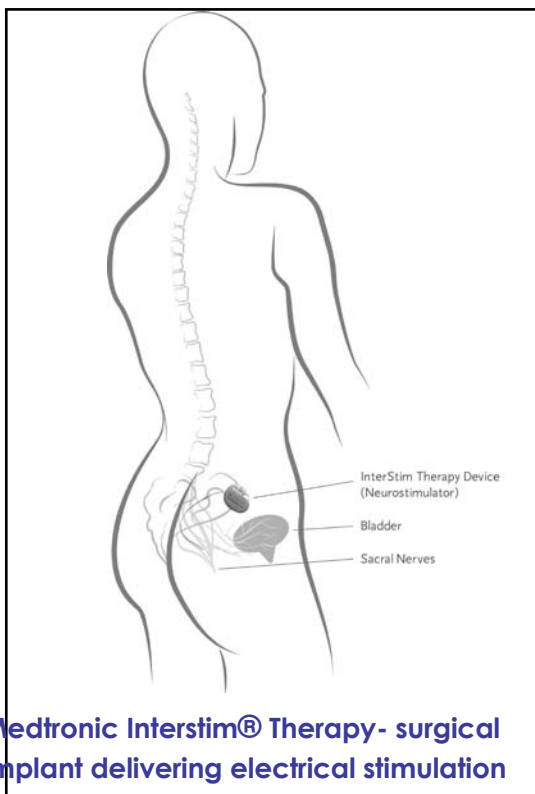
Sacral Nerve Stimulation, Interstim® Therapy

For patients with symptoms caused by OAB who have not had significant success or could not tolerate conservative treatments such as behavioral treatments or medication, there is a treatment that allows the delivery of electrical stimulation directly to the sacral nerves, called sacral neuromodulation or sacral nerve stimulation. This therapy was FDA approved in 1997 and has been implanted in nearly 50,000 individuals worldwide. It has been shown to be successful in 4 out of 5 patients with urge incontinence and successful in two-thirds of patients with urgency-frequency.

Sacral neuromodulation involves two stages: a

test and a permanent implant. The advantage of a single implant is that it delivers electrical stimulation without the need of repeated doctor's office visits. Another benefit of this therapy is the test stimulation. This outpatient procedure allows patients to assess the effect of the therapy at home prior to consideration of a surgical implant procedure.

The implanted system consists of a small stimulation system that is surgically placed under the skin in the upper buttock or the abdomen. This is a minimally invasive procedure that can be performed under local anesthesia. The therapy uses mild electric pulses much like a heart pacemaker to stimulate the sacral nerve in the lower back (just above the tailbone). The implanted system is called InterStim® Therapy.



InterStim® Therapy is a reversible treatment and adjustments can be made at the doctor's office with a programming device that sends a radio signal through the skin to the neurostimulator. Another programming device is given to the patient to further adjust the level of stimulation, if necessary.

Medtronic InterStim® Therapy is indicated for the treatment of unobstructed urinary retention and the symptoms of OAB, including urinary urge incontinence and significant symptoms of urgency-frequency alone or in combination, in patients who have failed or could not tolerate more conservative treatments. When considering the procedure, be sure to talk to your doctor about possible risks of surgery, such as pain, discomfort, and infection.

Research and Future Treatment

In addition to the many behavioral and minimally invasive treatment options currently being used to treat OAB and urge incontinence, there is exciting research on new treatments underway. Studies have shown that patients with both neurogenic and non-neurogenic OAB have experienced a significant decrease in their symptoms as the result of Botulinum toxin type A (BTX-A or Botox®) bladder injections. While it is clear that patients do experience improvement with BTX-A injection therapy, the exact number and dosage of injections, success rate, and duration of symptom relief have yet to be determined. Nor are the long term effects of cumulative Botox treatments known.

Other Considerations:

Surgery is rarely used to treat urge incontinence. However, if it is severe and refractory, augmentation cystoplasty, or bladder enlargement, can be considered.

Those who are in the process of seeking treatment or who have not had success with treatment may find various products and devices helpful. NAFC publishes a directory of all products and devices used for treating or managing bladder and bowel control problems, called the Resource Guide®. Please call 1-800-BLADDER or visit our online store at www.nafc.org for ordering a copy of the directory or obtaining other helpful educational literature.

Conclusion

Patients with OAB and urge incontinence should feel encouraged by the many existing treatment options that can provide meaningful and even complete relief of their symptoms. Moreover, because treatment options are continually advancing, the likelihood of finding an effective treatment is always increasing. For these reasons, be sure not only to make an appointment with a doctor, but also to revisit your doctor if you are still experiencing bothersome symptoms of OAB and urge incontinence.

For further information on the products and devices mentioned in this publication or to find an expert, contact the National Association For Continence (NAFC) at 1-800-BLADDER (1-800-252-3337) or at www.nafc.org.

National Association For Continence is a national, private, non-profit 501(c)(3) organization dedicated to a threefold mission: 1) To educate the public about the causes, diagnosis categories, treatment options, and management alternatives for incontinence, nocturnal enuresis, voiding dysfunction and related pelvic floor disorders, 2) To network with other organizations and agencies to elevate the visibility and priority given to these health concerns, and 3) To advocate on behalf of consumers who suffer from such symptoms as a result of disease or other illness, obstetrical, surgical or other trauma, or deterioration due to the aging process itself.

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