

Urinary incontinence

Definition

Incontinence is the inability to control the passage of urine. This can range from an occasional leakage of urine, to a complete inability to hold any urine.

The three main types of urinary incontinence are:

Stress incontinence -- occurs during certain activities like coughing, sneezing, laughing, or exercise.

Urge incontinence -- involves a strong, sudden need to urinate followed by instant bladder contraction and involuntary loss of urine. You don't have enough time between when you recognize the need to urinate and when you actually do urinate.

Mixed incontinence -- contains components of both stress and urge incontinence.

Bowel incontinence, a separate topic, is the inability to control the passage of stool.

Alternative Names

Loss of bladder control; Uncontrollable urination; Urination - uncontrollable; Incontinence - urinary

Considerations

Incontinence is most common among the elderly. Women are more likely than men to have urinary incontinence.

Infants and children are not considered incontinent, but merely untrained, up to the time of toilet training. Occasional accidents are not unusual in children up to age 6 years. Young (and sometimes teenage) girls may have slight leakage of urine when laughing.

Nighttime urination in children is normal until the age of 5 or 6.

NORMAL URINATION

The ability to hold urine is dependent on having normal anatomy and a normally functioning urinary tract and nervous system. You must also possess the physical

and psychological ability to recognize and appropriately respond to the urge to urinate.

The process of urination involves two phases:

1. The filling and storage phase
2. The emptying phase

Normally, during the filling and storage phase, the bladder begins to fill with urine from the kidneys. The bladder stretches to accommodate the increasing amounts of urine.

The first sensation of the urge to urinate occurs when approximately 200 ml (just under 1 cup) of urine is stored. A healthy nervous system will respond to this stretching sensation by alerting you to the urge to urinate, while also allowing the bladder to continue to fill.

The average person can hold approximately 350 to 550 ml (over 2 cups) of urine. The ability to fill and store urine properly requires a functional sphincter (the circular muscles around the opening of the bladder) and a stable, expandable bladder wall muscle (detrusor).

The emptying phase requires the ability of the detrusor muscle to appropriately contract to force urine out of the bladder. At the same time, your body must be able to relax the sphincter to allow the urine to pass out of the body.

Causes

Incontinence may be sudden and temporary, or ongoing and long-term. Causes of sudden or temporary incontinence include:

Bedrest -- for example, when recovering from surgery

Certain medications (such as diuretics, antidepressants, tranquilizers, some cough and cold remedies, and antihistamines for allergies)

Increased urine amounts, like with poorly controlled diabetes

Mental confusion

Pregnancy

Prostate infection or inflammation

Stool impaction from severe constipation, causing pressure on the bladder

Urinary tract infection or inflammation

Weight gain

Causes that may be more long-term:

Alzheimer's disease

Bladder cancer

Bladder spasms

Depression

Large prostate in men

Neurological conditions such as multiple sclerosis or stroke

Nerve or muscle damage after pelvic radiation

Pelvic prolapse in women -- falling or sliding of the bladder, urethra, or rectum into the vaginal space, often related to having had multiple pregnancies and deliveries

Problems with the structure of the urinary tract

Spinal injuries

Weakness of the sphincter, the circular muscles of the bladder responsible for opening and closing it; this can happen following prostate surgery in men, or vaginal surgery in women

Home Care

See your doctor for an initial evaluation and to come up with a treatment plan. Treatment options vary, depending on the cause and type of incontinence you have. Fortunately, there are many things you can do to help manage incontinence.

The following methods are used to strengthen the muscles of your pelvic floor:

Bladder retraining -- this involves urinating on a schedule, whether you feel a need to go or not. In between those times, you try to wait to the next scheduled time. At first, you may need to schedule 1 hour intervals. Gradually, you can increase by 1/2 hour intervals until you are only urinating every 3 - 4 hours without leakage.

Kegel exercises -- contract the pelvic floor muscles for 10 seconds, then relax them for 10 seconds. Repeat 10 times. Do these exercises three times per day. You can do Kegel exercises any time, any place.

To find the pelvic muscles when you first start Kegel exercises, stop your urine flow midstream. The muscles needed to do this are your pelvic floor muscles. DO NOT contract your abdominal, thigh, or buttocks muscles. And DO NOT overdo the exercises. This may tire the muscles out and actually worsen incontinence.

Two methods called biofeedback and electrical stimulation can help you learn how to perform Kegel exercises. Biofeedback uses electrodes placed on the pelvic floor muscles, giving you feedback about when they are contracted and when they are not. Electrical stimulation uses low-voltage electric current to stimulate the pelvic floor muscles. It can be done at home or at a clinic for 20 minutes every 1 - 4 days.

Biofeedback and electrical stimulation will no longer be necessary once you have identified the pelvic floor muscles and mastered the exercises on your own.

Vaginal cones enhance the performance of Kegel exercises for women. Other devices for incontinence are also available.

For leakage, wear absorbent pads or undergarments. There are many well-designed products that go completely unnoticed by anyone but you.

Other measures include:

- Regulate your bowels to avoid constipation. Try increasing fiber in your diet.

- Quit smoking to reduce coughing and bladder irritation. Smoking also increases your risk of bladder cancer.

- Avoid alcohol and caffeinated beverages, particularly coffee, which can overstimulate your bladder.

- Lose weight if you need to.

- Avoid foods and drinks that may irritate your bladder, like spicy foods, carbonated beverages, and citrus fruits and juices.

- Keep blood sugar under good control if you have diabetes.

Your doctor may recommend medication or surgery, especially if home care measures are not helping or if your symptoms are getting worse.

Medications that may be prescribed include drugs that relax the bladder, increase bladder muscle tone, or strengthen the sphincter.

Surgery may be required to relieve an obstruction or deformity of the bladder neck and urethra. Uterine or pelvic suspension operations are sometimes needed in women. Men may require prostatectomy (removal of the prostate gland). Incontinence can sometimes be managed by artificial sphincters. These are synthetic cuffs that are surgically placed around the urethra to help retain urine.

If you have overflow incontinence or cannot empty your bladder completely, a catheter may be recommended. But using a catheter exposes you to potential infection.

PREVENTION

Performing Kegel exercises while you are pregnant and soon after delivery may help prevent incontinence related to childbirth.

When to Contact a Medical Professional

Discuss incontinence with your doctor. Gynecologists and urologists are the specialists most familiar with this condition. They can evaluate the causes and recommend treatment approaches.

Call your local emergency number (such as 911) or go to an emergency room if any of the following accompany a sudden loss of urine control:

Difficulty talking, walking, or speaking

Sudden weakness, numbness, or tingling in an arm or leg

Loss of vision

Loss of consciousness or confusion

Loss of bowel control

Call your doctor if:

You have been constipated for more than 1 week

You have difficulty starting your urine flow, dribbling, nighttime urination, pain or burning with urination, increased frequency or urgency, or cloudy or bloody urine

You are taking medications that may be causing incontinence -- DO NOT adjust or stop any medications without talking to your doctor

You are over 60 years old and your incontinence is new, especially if you are also having trouble with your memory or caring for yourself

You have the urge to go often, but are only passing small amounts of urine

Your bladder feels full even after you have just urinated

Incontinence persists for more than 2 weeks even with exercises to strengthen your pelvic muscles

What to Expect at Your Office Visit

Your doctor will take your medical history and perform a physical examination, with a focus on your abdomen, genitals, pelvis, rectum, and neurologic system.

Medical history questions may include:

How long has incontinence been a problem for you?

How many times does this happen each day?

Are you aware of the need to urinate before you leak?

Are you immediately aware that you have passed urine?

Are you wet most of the day?

Do you wear protective garments in case of accidents? How often?

Do you avoid social situations in case of accidents?

Have you had urinary tract infections in the past? Do you think that you may have one now?

Is it more difficult to control your urine when you cough, sneeze, strain, or laugh?

Is it more difficult to control your urine when running, jumping, or walking?

Is your incontinence worse when sitting up or standing?

Are you constipated? For how long?

Is there anything you do to reduce or prevent accidents?

Have you ever been treated for this condition before? Did it help?

Have you tried pelvic floor exercises (Kegel)? Do they help?

What procedures, surgeries, or injuries have you had?

What medications do you take?

Do you drink coffee? How much?

Do you drink alcohol? How much?

Do you smoke? How much each day?

Do you have diabetes or a family history of diabetes?

Do you have any other symptoms?

Diagnostic tests that may be performed include:

Urinalysis

Urine culture to check for infection if indicated

Cystoscopy (inspection of the inside of the bladder)

Urodynamic studies (tests to measure pressure and urine flow)

Uroflow (to measure pattern of urine flow)

Post void residual (PVR) to measure amount of urine left after urination

Other tests may be performed to rule out pelvic weakness as the cause of the incontinence. One such test is called the Q-tip test. This test involves measurement of the change in the angle of the urethra when it is at rest and when it is straining. An angle change of greater than 30 degrees often indicates significant weakness of the muscles and tendons that support the bladder.

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