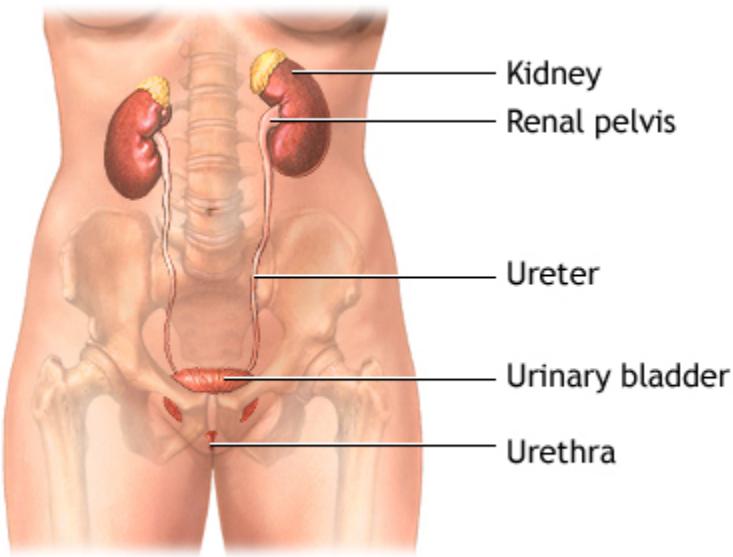


## Stress incontinence



ADAM.

The female and male urinary tracts are relatively the same except for the length of the urethra.

Also known as: *Incontinence - stress*

### Definition

Stress incontinence occurs when your bladder leaks urine during physical activity or exertion. It may happen when you cough, lift something heavy, or exercise.

### Causes

Most adults can hold over 2 cups of urine in their bladder. Stress incontinence occurs when the muscles that control your urine flow don't work properly.

- The bladder and urethra are supported by the pelvic floor muscles. Urine flows from your bladder through your urethra to the outside.
- The sphincter is a muscle around the opening of the bladder. It squeezes to prevent urine from leaking through the urethra.

When either set of muscles become weak, urine can pass when pressure is placed on your bladder. You may notice it when you:

- Cough
- Sneeze
- Laugh
- Exercise

- Lift heavy objects

Weakened muscles may be caused by:

- Childbirth
- Injury to the urethra area
- Some medications
- Surgery in the pelvic area or the prostate (in men)

Stress incontinence is the most common type in women. Certain things increase your risk:

- If you have had more than one pregnancy and vaginal delivery.
- If you have pelvic prolapse. This is when your bladder, urethra, or rectum slide into the vagina. Delivering a baby can cause nerve or tissue damage in the pelvic area. This can lead to pelvic prolapse months or years after delivery.

### Symptoms

The main symptom of stress incontinence is leaking urine when you:

- Are physically active
- Cough
- Exercise
- Have sexual intercourse
- Sneeze
- Stand

### Exams and Tests

Your health care provider will perform a physical exam, including a:

- Genital exam in men
- Pelvic exam in women
- Rectal exam

In some women, a pelvic examination may show that the bladder or urethra is bulging into the vagina.

Tests may include:

- Cystoscopy to look inside the bladder
- Pad test. You exercise while wearing a sanitary pad. Then the pad is weighed to find out how much urine you lost.
- Pelvic or abdominal ultrasound

- Post-void residual (PVR) to measure the amount of urine left after you urinate
- [Urinalysis](#) to check for urinary tract infection
- Urinary stress test (you stand with a full bladder and then cough)
- Urodynamic studies to measure pressure and urine flow
- X-rays with contrast dye to look at your kidneys and bladder

## Treatment

Treatment depends on how your symptoms affect your life. Your health care provider may ask you to keep a urinary diary. You can record how many times you urinate during the day and night, and how often you leak urine.

There are four types of treatment for stress incontinence:

- Behavior changes
- Medication
- Pelvic floor muscle training
- Surgery

## BEHAVIOR CHANGES

Making these changes may help:

- Drink less fluid (if you drink more than normal amounts of fluid).
- Don't hold it. Urinate when you first feel the urge. This may help reduce the amount of urine that leaks.
- Avoid jumping or running.
- Take fiber to avoid constipation, which can make urinary incontinence worse.
- Quit smoking. This can reduce coughing and bladder irritation. Smoking also increases your risk for bladder cancer.
- Avoid alcohol and caffeinated drinks such as coffee. They can cause the urge to urinate.
- Lose excess weight.
- Avoid foods and drinks that may irritate your bladder. These include spicy foods, carbonated drinks, and citrus.
- If you have diabetes, keep your blood sugar under good control.

## PELVIC FLOOR MUSCLE TRAINING

There are different ways to strengthen the muscles in your pelvic floor.

- Biofeedback. This method can help you learn to identify and control your pelvic floor muscles.
- [Kegel exercises](#) can help keep the muscle around your urethra strong and working well. This may help keep you from leaking urine.
- Vaginal cones. You place the cone into the vagina. Then you try to squeeze your pelvic floor muscles to hold the cone in place. You can wear the cone for up to 15 minutes at a time, two times a day. You may notice improvement in your symptoms in 4 to 6 weeks.

## MEDICINES

Medicines tend to work better if you have mild to moderate incontinence. Your doctor may prescribe one or more medicine.

- Anticholinergic medicines help relax the muscles of the bladder. They include oxybutynin (Oxytrol, Ditropan), tolterodine (Detrol), darifenacin (Enablex), trospium (Sanctura), and solifenacin (Vesicare).
- Antimuscarinic drugs block bladder contractions.
- Estrogen therapy may help improve symptoms in women who have gone through menopause. It is applied as a cream or inserted into your vagina as a tablet or ring.
- Imipramine, a tricyclic antidepressant, helps relax bladder muscles.

## SURGERIES

If other treatments do not work, your doctor may recommend surgery. Surgery may help if you have severe incontinence. Most health care providers suggest surgery only after trying other treatments.

- [Anterior vaginal repair](#) helps restore weak and sagging vaginal walls. This is used when the bladder bulges into the vagina (prolapse).
- [Artificial urinary sphincter](#). This is a device used to keep urine from leaking. It is used mainly in men.
- [Collagen injections](#) make the area around the urethra thicker. This helps control leakage. The procedure may need to be repeated after a few months.
- Male sling is a mesh tape used to put pressure on the urethra. It is easier to do than placing an artificial urinary sphincter.
- Retropubic suspensions lift the bladder and urethra.
- [Tension-free vaginal tape](#) supports the bladder and urethra.
- [Vaginal sling procedures](#) use a sling to support the urethra.

If you have trouble completely emptying your bladder, you may need to use a catheter. This is a very small tube you completely emptying your bladder, you may need to use a catheter. This is a very small tube you place in your urethra to drain urine from your bladder.

## Outlook (Prognosis)

Getting better takes time, so try to be patient. Nonsurgical treatments usually improve symptoms. However, they will not cure stress incontinence. Surgery can cure some people with stress incontinence.

Treatment does not work as well if you have:

- Conditions that prevent healing or make surgery more difficult
- Other genital or urinary problems
- Past surgery that did not work

### Possible Complications

Physical complications are rare and usually mild, but they can include:

- Wearing away of materials placed during surgery, such as a sling or artificial sphincter
- [Fistulas](#) or [abscesses](#)
- Irritation of the vagina lips (vulva)
- Pain during intercourse
- Skin sores in people who can't get out of the bed or chair
- Unpleasant odors
- Urinary tract infections
- [Vaginal discharge](#)

The condition may get in the way of social activities, careers, and relationships. It also may make you feel embarrassed or bad about yourself.

### When to Contact a Medical Professional

Call for an appointment with your health care provider if you have symptoms of stress incontinence and they bother you.

### Prevention

Doing Kegel exercises may help prevent symptoms. Women who are pregnant may want to do Kegels during and after pregnancy to help prevent incontinence.

### References

Deng DY. Urinary incontinence in women. *Med Clin North Am.* 2011;95:101-109.

Gerber GS, Brendler CB. Evaluation of the urologic patient: history, physical examination, and urinalysis. In: Wein AJ, ed. *Campbell-Walsh Urology*. 10th ed. Philadelphia, PA: Saunders Elsevier; 2011:chap 3.

Resnick NM. Incontinence. In: Goldman L, Ausiello D, eds. *Goldman's Cecil Medicine*. 24th ed. Philadelphia, PA: Saunders Elsevier; 2011:chap 25.