CONDITION

Stress urinary incontinence

Stress urinary incontinence is urine leakage caused by coughing, exercise, or other physical pressure.

WHAT IT IS
Urine leakage during coughing, exercise, or physical effort

BODY SYSTEM
Urinary system and pelvic floor

MAIN SYMPTOMS
Leakage with coughing, sneezing, laughing, lifting, or exercise

WHAT CAUSES IT
Weak urethral closure or pelvic floor support

HOW IT IS DIAGNOSED
History, examination, urine test, and cough stress test

MAIN TREATMENT
Pelvic floor training, devices, or surgery

CAN IT BE CURED?
Sometimes - treatment or surgery can stop leakage

IS IT AN EMERGENCY?
Sometimes - sudden leakage with weakness or saddle numbness

LONG-TERM OUTLOOK
Symptoms often improve with treatment but may return

Overview

Stress urinary incontinence is the unplanned leakage of urine during physical effort. Common triggers include coughing, sneezing, laughing, running, lifting, or standing up.

"Stress" refers to pressure on the bladder, not emotional stress. Leakage happens when pressure inside the abdomen rises and the urethra cannot stay fully closed. The urethra is the tube that carries urine out of the bladder.

The condition is common in women, particularly after pregnancy, vaginal birth, and menopause. It can also affect men, most often after prostate surgery. It may occur on its own or alongside urgency incontinence, which causes a sudden, difficult-to-control need to urinate.

Stress urinary incontinence does not usually damage the kidneys or become life-threatening.

However, it can affect exercise, work, travel, sleep, relationships, and sexual activity. Effective treatments are available, and you do not need to wait until leakage becomes severe before seeking help.

Symptoms

The main symptom is urine leakage at the same time as an activity that increases pressure on the bladder. The amount may range from a few drops to enough to wet clothing.

Typical triggers include:

You may leak only when your bladder is full, or with relatively minor movement. Symptoms can become more noticeable during a respiratory illness because frequent coughing repeatedly raises pressure on the bladder.

Stress urinary incontinence does not usually cause pain, burning, fever, or a constant urge to urinate. Those symptoms may point to another problem, such as a urinary tract infection.

Some people have mixed urinary incontinence. This means they have both stress leakage and urgency leakage. Urgency leakage happens after a sudden need to urinate and may occur before reaching a toilet. Identifying which type causes the most difficulty helps guide treatment.

- Coughing, sneezing, laughing, or bending
- Running, jumping, lifting, or other exercise
- Standing from a seated position
- Sexual activity

Causes and risk factors

Urine normally stays in the bladder because the urethra remains closed. Pelvic floor muscles and nearby tissues support the bladder neck and urethra. A ring of muscle called the urinary sphincter also helps hold urine in.

Stress urinary incontinence can develop when this support becomes weaker or when the sphincter does not close firmly enough. Pressure from movement or coughing can then push urine through the urethra.

Factors that may contribute include:

Having one or more risk factors does not mean you will develop the condition. People without

obvious risk factors can also be affected.

- Pregnancy and vaginal birth, which can stretch pelvic tissues
- Menopause and age-related changes in pelvic support
- Pelvic surgery, including prostate surgery
- Pelvic organ prolapse, where a pelvic organ moves downward
- Higher body weight, which increases pressure on the pelvic floor
- Long-term coughing, including coughing linked to smoking or lung disease
- Repeated heavy lifting or high-impact activity
- Constipation and frequent straining
- Nerve or muscle conditions affecting bladder control

Diagnosis

A healthcare professional will usually ask when leakage happens, how much urine is lost, and how it affects daily life. They may ask about pregnancy, pelvic or prostate surgery, urgency, infections, bowel symptoms, medicines, and difficulty emptying the bladder.

You may be asked to keep a bladder diary for several days. This records drinks, toilet visits, leakage, urgency, and possible triggers. It can help separate stress incontinence from urgency or other bladder problems.

A urine sample is usually checked for infection and blood. An examination may assess pelvic floor muscle strength, pelvic organ prolapse, or changes around the vagina. In men, the examination may focus on the abdomen, genital area, and effects of previous prostate treatment.

A cough stress test can demonstrate stress leakage. During this test, you cough with a comfortably full bladder while a healthcare professional watches for urine loss. This is often enough to confirm that leakage is linked to physical pressure.

Other tests are used when the diagnosis is uncertain or symptoms are more complicated. These may include measuring urine left in the bladder after urination or urodynamic testing, which measures bladder pressure and urine flow. Urodynamic testing is not routinely needed for every person before treatment.

Treatment and management

Treatment depends on how often leakage occurs, how much it affects you, whether other urinary symptoms are present, and your treatment preferences.

Pelvic floor muscle training is usually the first treatment. These exercises strengthen the muscles supporting the bladder and urethra. A pelvic health physiotherapist or trained professional can check that you are contracting the correct muscles. Regular practice is important, and improvement often takes weeks or months.

Pelvic floor exercises involve squeezing the muscles used to prevent passing wind or stop urine flow. Regularly stopping urine while actually urinating is not recommended as an exercise because it may interfere with normal emptying.

Other measures may reduce pressure on the pelvic floor. These include treating constipation or a long-term cough and working toward weight loss if higher body weight is contributing. You do not usually need to severely restrict fluids. Too little fluid can make urine concentrated and may worsen bladder irritation or constipation.

Absorbent pads, protective underwear, or washable products can help manage leakage while treatment takes effect. They control symptoms but do not treat the underlying weakness.

Some women use a vaginal continence pessary or another removable support device. It sits inside the vagina and supports the urethra during daily activity or exercise. It needs to be fitted correctly and checked periodically.

Medicines have a limited role because they do not restore the physical support around the urethra. Duloxetine may be considered for some women in certain countries, but it can cause side effects and is not suitable for everyone.

Surgery may be considered when symptoms remain troublesome despite non-surgical treatment. Options for women include a midurethral sling, a sling made from the person's own tissue, or colposuspension, which lifts tissues near the bladder neck. A synthetic midurethral sling uses permanent surgical mesh. Its benefits, possible complications, and locally available alternatives should be discussed before surgery.

Urethral bulking injections place material around the urethra to help it close. They are less invasive, but their effect may reduce over time and repeat treatment may be needed.

For persistent leakage after prostate treatment, options can include pelvic floor rehabilitation, a male sling, or an artificial urinary sphincter. The artificial sphincter is an implanted device that is opened when you need to urinate.

Complications

Stress urinary incontinence may lead to skin irritation if the skin stays damp. Suitable absorbent products, regular changes, gentle cleansing, and a skin barrier product may help.

Some people reduce exercise, social activities, travel, or sexual activity because they fear leakage. This can affect physical fitness, confidence, mood, and relationships. Planning access to toilets or wearing protection may help in the short term, but ongoing restriction is also a reason to seek treatment.

The condition itself does not usually cause urinary infections. However, pain, burning, fever, or repeated infections should be assessed rather than assumed to be part of incontinence.

Treatments can also have complications. Pessaries may cause discharge, bleeding, or irritation if they do not fit properly. Surgery can cause infection, bleeding, difficulty emptying the bladder, new urgency symptoms, pain, or return of leakage. Mesh procedures have additional mesh-specific risks. The likelihood and importance of these risks differ between procedures.

Prevention

Stress urinary incontinence cannot always be prevented. Pregnancy, childbirth, menopause, aging, and necessary pelvic or prostate surgery can affect bladder control even when you take reasonable preventive steps.

Pelvic floor muscle training during and after pregnancy may reduce the chance or severity of leakage for some people. Learning the correct technique is important.

Maintaining a weight that is healthy for you may reduce pressure on the pelvic floor. Treating constipation and a persistent cough can also reduce repeated straining. If you smoke, stopping can lessen smoking-related coughing as well as provide wider health benefits.

High-impact exercise does not need to be avoided by everyone. If a particular activity causes leakage, pelvic floor assessment and changes to technique or training intensity may allow you to remain active.

Living with it and what to expect

Stress urinary incontinence may remain mild, improve, or become more noticeable over time. Changes in weight, coughing, physical activity, pregnancy, menopause, and pelvic or prostate procedures can alter symptoms.

Pelvic floor training helps many people, but it requires ongoing practice. Symptoms may return if muscle training stops or if the pelvic floor faces new strain. Devices and absorbent products

can support daily life even when they do not remove the cause.

Surgery can provide substantial or complete relief, but no procedure guarantees permanent dryness. Leakage can return months or years later, and some people develop urgency symptoms or difficulty emptying the bladder after treatment.

You may find it useful to plan exercise around bladder emptying, carry spare protection when away from home, and choose clothing that is easy to change. Avoiding all activity is not necessary and may reduce fitness. A pelvic health professional can help you adapt exercise without giving up activities that matter to you.

Stress urinary incontinence is not an unavoidable part of aging or childbirth. Even if you have lived with it for years, assessment and treatment may still improve bladder control and quality of life.

When to get medical help

Arrange a routine appointment if leakage is frequent, worsening, limiting activity, affecting sleep or relationships, or requiring regular pads. You should also seek assessment if you are unsure whether leakage is caused by effort or by sudden urgency.

Seek prompt medical advice if you have:

Get emergency help for sudden loss of bladder control accompanied by severe back pain, new leg weakness, numbness around the genitals or buttocks, or loss of bowel control. These can be signs of serious pressure on the nerves at the base of the spine.

An inability to urinate with severe lower abdominal pain also needs urgent assessment. Sudden leakage by itself, without these warning signs, is not usually an emergency.

- Blood in your urine
- Pain or burning when urinating
- Fever with urinary symptoms
- Repeated urinary infections
- New difficulty starting urination or emptying your bladder
- Persistent pelvic pain or an unexplained pelvic lump

Common questions

Can stress urinary incontinence go away on its own?

Temporary leakage may improve after pregnancy, childbirth, or recovery from surgery. Persistent symptoms may not disappear without treatment. Pelvic floor training can improve or stop leakage for some people, while others need a device or surgery.

Is stress incontinence caused by anxiety or emotional stress?

No. The word "stress" means physical pressure on the bladder. Anxiety can affect bladder habits or urgency, but it does not define stress urinary incontinence.

Can I do pelvic floor exercises by stopping my urine?

Stopping urine flow once may help identify the muscles, but it should not become your regular exercise method. Repeatedly interrupting urination can interfere with normal bladder emptying. Exercises are usually done when you are not urinating.

Should I drink less water to stop leakage?

Severely limiting fluids is not recommended. Dehydration can concentrate urine and worsen constipation. A bladder diary can help identify whether very large amounts of fluid, caffeine, or alcohol are contributing to symptoms.

Will surgery cure stress urinary incontinence?

Surgery can stop or greatly reduce leakage, but results are not guaranteed and symptoms can return. Different operations have different recovery needs and risks. The choice should reflect your symptoms, health, previous surgery, and preferences.

Is stress urinary incontinence the same as an overactive bladder?

No. Stress incontinence causes leakage with coughing, exercise, or movement. Overactive bladder causes urgency, frequent urination, and sometimes leakage before reaching a toilet. You can have both conditions at the same time.

Sources

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