PROCEDURE

Urinary incontinence - retropubic suspension

Retropubic suspension is surgery that supports the bladder neck and urethra to reduce stress urinary leakage.

PURPOSE
Reduce urine leakage during coughing, exercise, or lifting

PROCEDURE TYPE
Therapeutic surgery through abdominal or keyhole incisions

WHERE IT IS DONE
Operating theatre

ANAESTHESIA
General anaesthesia

HOW LONG IT TAKES
About one to two hours

PREPARATION
Fasting and individual instructions about medicines

RECOVERY
Often overnight; no driving until safely mobile

MAIN RISKS
Bladder injury, infection, difficulty urinating, new bladder urgency

RESULTS
Initial improvement after catheter removal; fuller results after healing

Overview

Retropubic suspension is an operation for stress urinary incontinence. This means urine leaks when pressure inside your abdomen rises, such as when you cough, sneeze, laugh, exercise, or lift something.

The most common form is called Burch colposuspension. The surgeon places stitches in the tissue beside the urethra and bladder neck. The urethra is the tube that carries urine out of the bladder. The stitches lift and support this area so it can stay closed more effectively during physical effort.

The stitches are attached to strong tissue behind the pubic bone. The operation does not usually place a synthetic mesh tape beneath the urethra.

Surgery may be performed through one larger lower-abdominal incision or through several small incisions using keyhole surgery. The available approach depends on your health, previous operations, the surgeon's experience, and whether another pelvic procedure is planned.

Why the procedure is performed

Retropubic suspension is intended to reduce stress-related urine leakage when symptoms are troublesome and non-surgical treatments have not provided enough benefit.

It may be considered when stress incontinence has been confirmed by your assessment. It can also be an option if you want surgery but prefer not to have a synthetic mesh sling.

This operation mainly treats stress leakage. It does not directly treat urgency incontinence, in which a sudden strong need to urinate is followed by leakage. If you have both types, surgery may improve the stress leakage while urgency continues or occasionally becomes more noticeable.

No operation can guarantee that leakage will stop permanently. The benefit may lessen over time, particularly if pelvic support changes with ageing, pregnancy, chronic coughing, or other health conditions.

Who should and should not have it

Retropubic suspension may be suitable if you have bothersome stress urinary incontinence and understand the likely benefits, recovery, risks, and alternatives. It is usually considered after pelvic floor muscle training has been tried or discussed.

Before offering surgery, your healthcare team should confirm what type of leakage you have. Assessment may include a urine test, bladder diary, pelvic examination, cough test, and measurement of urine left in the bladder after you urinate. Some people need bladder pressure testing, called urodynamics, when the diagnosis is uncertain or their history is more complex.

The procedure may not be the right choice if urgency is the main cause of leakage. It may also be avoided or delayed when:

Pregnancy and vaginal birth after surgery may affect the result. If you may want future pregnancies, discuss the timing of surgery and non-surgical options before deciding.

Previous pelvic surgery, pelvic radiation, prolapse, or neurological conditions do not always rule out the procedure, but they may change its risks or make another treatment more appropriate.

- You have a urinary or other active infection

- You are pregnant or planning pregnancy soon
- You cannot safely have anaesthesia or abdominal surgery
- You already have significant difficulty emptying your bladder
- The cause of leakage remains unclear
- A temporary health problem makes surgery or recovery less safe

How to prepare

Your treating facility's own instructions take priority because preparation can differ between hospitals and surgical approaches.

You will usually be told when to stop eating and drinking before anaesthesia. Ask specifically about blood thinners like warfarin or apixaban , aspirin, diabetes medicines, and herbal products. Do not stop a prescribed medicine unless your surgical or anaesthesia team tells you to.

Tell the team about allergies, previous reactions to anaesthesia, bleeding problems, implanted devices, and any possibility of pregnancy. Contact them before the operation if you develop a fever, urinary symptoms, chest infection, or another new illness.

Arrange for someone to take you home. You may also need help with shopping, childcare, housework, or lifting during the first part of recovery.

You may be asked to provide a urine sample before surgery. The team will explain plans for preventing blood clots and infection, as well as whether you are likely to go home with a urinary catheter.

What happens during the procedure

After the anaesthetic begins, the surgeon reaches the space behind your pubic bone through an open abdominal incision or keyhole incisions.

Stitches are placed in strong tissue on each side of the urethra and bladder neck. They are then secured to a firm ligament behind the pubic bone. This lifts the tissue without closing the urethra.

The surgeon may examine the inside of your bladder with a thin camera called a cystoscope. This helps check that the bladder and the openings from the kidneys have not been injured or blocked by a stitch.

A catheter is placed through the urethra to drain urine while swelling settles. The incisions are then closed. If another procedure is being done at the same time, your operation may take longer.

Recovery and what to expect afterward

Pain is usually felt around the abdominal incisions. You may also notice bladder discomfort, bruising, or a pulling sensation. Pain should gradually improve and can usually be managed with the medicines recommended by your team.

You can normally start drinking and then eating once you are awake and not feeling sick. Constipation is common after pelvic surgery, especially when taking stronger pain medicines. Fluids, fibre, gentle movement, and any prescribed bowel medicine can help you avoid straining.

Walking short distances supports circulation and recovery. Avoid heavy lifting, strenuous exercise, and activities that place pressure on the healing area until your surgeon says they are safe. Follow your team's instructions about bathing, swimming, tampons, and sexual activity.

Do not drive while taking sedating pain medicine or while pain limits your ability to turn, concentrate, or perform an emergency stop. Check your surgical team's advice and your insurer's requirements before driving.

Time away from work is often several weeks, but it is influenced by the surgical approach and how physical your job is. Desk work may be possible sooner than work involving lifting or prolonged activity.

The catheter may be removed before you leave hospital. Your bladder will then be checked to make sure it empties adequately. If it does not, you may need a catheter for longer or may temporarily learn how to empty your bladder with a small catheter.

Risks and possible complications

Possible risks include:

An injury found during surgery can often be repaired at the same operation. Some complications may require a catheter, medicine, another procedure, or further surgery. Your surgeon can explain how your health and planned surgical approach affect these risks.

- Bleeding, wound infection, or urinary tract infection

- Injury to the bladder, urethra, ureters, bowel, blood vessels, or nerves
- Temporary or persistent difficulty emptying the bladder
- New or worsened urgency, frequent urination, or urgency leakage
- Pain during sex or ongoing pelvic pain
- Pelvic organ prolapse, particularly at the back or top of the vagina
- Blood clots in a leg or lung
- Continued leakage or leakage that returns later

Results and follow up

You may notice less stress leakage once the catheter is removed, although swelling can temporarily affect bladder control and emptying. A clearer sense of the result develops as the tissues heal over the following weeks.

You will usually have a routine follow-up appointment to check your incisions, bladder emptying, pain, activity level, and urinary symptoms. Keep this appointment even if recovery is going well.

Tell the team if stress leakage continues, urgency becomes troublesome, or you cannot empty your bladder normally. These concerns can be assessed without assuming that the operation has failed. Further treatment may include pelvic floor therapy, bladder training, medicine for urgency, or another procedure.

Alternatives

You do not have to choose surgery. The alternatives offer different balances between effort, recovery, effectiveness, and risk.

- Pelvic floor muscle training: Avoids surgery and strengthens the muscles supporting the urethra. It takes regular practice and may not provide enough control for everyone.
- Lifestyle measures: Weight management, treating constipation or chronic coughing, and adjusting fluid or caffeine intake may help. They are less invasive but may not control established stress leakage alone.
- Continence pads or devices: Provide immediate practical control without surgery but do not correct the underlying loss of support.

- Vaginal pessary: A removable device can support the urethra during activity. It avoids surgery but requires fitting, cleaning, and periodic checks.
- Urethral bulking injections: Material is injected around the urethra to help it close. Recovery is shorter, but benefit is generally less durable and repeat injections may be needed.
- Mid-urethral sling: A synthetic mesh tape supports the urethra through smaller incisions. Recovery is often shorter, but it introduces mesh-specific risks such as exposure, pain, or difficulty urinating.
- Autologous fascial sling: A strip of your own abdominal tissue supports the urethra. It avoids synthetic mesh but requires tissue harvesting and may carry a greater chance of difficulty emptying the bladder.
- No immediate treatment: Monitoring is reasonable if leakage is manageable. Symptoms may remain unchanged, improve, or become more troublesome.

When to call your healthcare team

Contact your surgical team promptly if you have a fever, worsening pain, increasing wound redness, pus-like drainage, persistent vomiting, painful urination, cloudy or foul-smelling urine, or increasing difficulty emptying your bladder.

Seek urgent advice if your catheter stops draining, falls out, or urine is leaking heavily around it. New one-sided calf pain or swelling also needs urgent assessment.

Call emergency services for difficulty breathing, chest pain, fainting, confusion, uncontrolled bleeding, or other severe and rapidly worsening symptoms.

Mild bruising, tiredness, constipation, and gradually improving incision discomfort can be part of routine recovery. Mention ongoing concerns at follow-up or contact the team sooner if they are not improving as expected.

Common questions

Will I be asleep?

Retropubic suspension is usually performed under general anaesthesia, so you will be unconscious and will not feel the operation.

Can I drive home?

No. Arrange for someone to take you home. Do not resume driving until you can move

comfortably, perform an emergency stop, and are no longer taking sedating pain medicine.

How painful is it?

Abdominal soreness is expected, especially after open surgery. Pain should improve over time and is usually managed with prescribed or recommended pain relief.

When will I know if it worked?

You may notice improvement after the catheter is removed. Swelling and temporary bladder changes mean the fuller result is usually clearer after several weeks of healing.

Will I go home with a catheter?

Some people do. This is more likely if the bladder does not empty well after the first catheter is removed. It is usually temporary, and the team will arrange another emptying test.

Does the operation use mesh?

A standard Burch colposuspension uses supporting stitches rather than a synthetic mesh tape beneath the urethra. Ask your surgeon exactly what materials and procedures are planned.

Sources

- National Institute for Health and Care Excellence. Urinary incontinence and pelvic organ prolapse in women: management . NICE guideline NG123.
- American Urological Association and Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction. Stress Urinary Incontinence Guideline . Published 2017; amended 2023.
- European Association of Urology. Guidelines on Non-neurogenic Female Lower Urinary Tract Symptoms . Surgical management of stress urinary incontinence.
- Lapitan MCM, Cody JD. Open retropubic colposuspension for urinary incontinence in women . Cochrane Database of Systematic Reviews. 2016; CD002912.
- National Health Service. Colposuspension . Patient information on the procedure, recovery, and complications.