



Urinary incontinence surgery in women: The next step

If you have severe symptoms of stress urinary incontinence or overactive bladder, surgery may provide a permanent solution to your problems. But surgery isn't for everyone. Find out what procedures may help in treating urinary incontinence.

By Mayo Clinic Staff

For some women, symptoms of stress incontinence or overactive bladder don't respond to conservative treatment. When you've tried conservative measures and urinary incontinence continues to disrupt your life, surgery might be an option.

Urinary incontinence surgery is more invasive and has a higher risk of complications than do many other therapies, but it can also provide a long-term solution in severe cases.

The surgical options available to you depend on the type of urinary incontinence you have. Most options for urinary incontinence surgery treat stress incontinence. However, low-risk surgical alternatives are available for other bladder problems, including overactive bladder — also called urge incontinence or urgency-frequency syndrome.

Before you choose urinary incontinence surgery:

- **Get an accurate diagnosis.** Different types of incontinence require different surgical approaches. Your doctor might refer you to an incontinence specialist, urologist or urogynecologist for further diagnostic testing.
- **Think about your plans for having children.** Your doctor might recommend waiting for surgery until you're finished with childbearing. The strain of pregnancy and delivery on your bladder, urethra and supportive tissues might undo the benefits of a surgical fix.
- **Understand that surgery only corrects the problem it's designed to treat.** Surgery doesn't cure all urinary incontinence. For instance, if you have mixed incontinence — a combination of stress incontinence and overactive bladder — surgery might improve your stress incontinence but not your overactive bladder. You might still need medication and physical therapy after surgery to treat overactive bladder.

Like any surgery, urinary incontinence surgery comes with risks. Although uncommon, potential complications include:

- Temporary difficulty urinating and incomplete bladder emptying (urinary retention)
- Development of overactive bladder, which could include urge incontinence
- Urinary tract infection
- Difficult or painful intercourse

Talk with your doctor to understand possible risks and benefits of surgery.

Most surgical procedures to treat stress incontinence fall into two main categories: sling procedures and bladder neck suspension procedures.

For a sling procedure, your surgeon uses strips of synthetic mesh, your own tissue, or sometimes animal or donor tissue to create a sling or "hammock" under the tube that carries urine from the bladder (urethra) or the area of thickened muscle where the bladder connects to the urethra (bladder neck). The sling supports the urethra and helps keep it closed — especially when you cough or sneeze — so that you don't leak urine.

The sling procedure that's best for you depends on your situation. Discussing the risks and benefits of each type of sling procedure with your doctor can help you make the right choice.

Tension-free sling

No stitches are used to attach the tension-free sling, which is made from a strip of synthetic mesh tape. Instead, body tissue holds the sling in place. Eventually scar tissue forms in and around the mesh to keep it from moving.

For a tension-free sling procedure, your surgeon may use one of three approaches:

- **Retropubic.** With the retropubic approach, your surgeon makes a small cut (incision) inside your vagina just under your urethra. Your surgeon also makes two small openings above your pubic bone just large enough for a needle to pass through. Your surgeon then uses a needle to pass the sling under the urethra and up behind the pubic bone. A few absorbable stitches close the vaginal incision, and the needle sites may be sealed with skin glue or stitches.
- **Transobturator.** With the transobturator approach, your surgeon makes a similar vaginal incision as in the retropubic approach and also creates a small opening on each side of your labia for the needle to pass through. The sling passes in a different pathway from the retropubic approach, but it's still placed under the urethra. Your surgeon closes the vaginal incision with absorbable stitches and the needle site with skin glue or stitches.
- **Single-incision mini.** With this approach, your surgeon makes only one small incision in your vagina to perform the procedure. Through this single incision, your surgeon places the sling in a manner similar to the retropubic and transobturator approaches. No other incisions or needle sites are needed.

Recovery time for tension-free sling surgery varies. Your doctor may recommend two to four weeks of healing before returning to activities that include heavy lifting or strenuous exercise. It may be up

to six weeks before you're able to resume sexual activity.

Using surgical mesh can be a safe and effective way to treat stress urinary incontinence. However, serious complications occur in some women, including erosion of the material, infection and pain.

Conventional sling

With a conventional approach, your surgeon makes an incision in your vagina and places a sling made of synthetic mesh tape — or possibly your own tissue or tissue from an animal or deceased donor — under the neck of your bladder. Through another incision in your abdomen, your surgeon pulls the sling to achieve the right amount of tension and attaches each end of the sling to pelvic tissue (fascia) or your abdominal wall using stitches.

A conventional sling sometimes requires a larger incision than does a tension-free sling. You might need an overnight stay in a hospital and usually a longer recovery period. You may also need a temporary catheter after surgery while you heal.

A bladder neck suspension reinforces the urethra and bladder neck so that they won't sag and provides something for the urethra to compress against to help prevent leakage.

To perform the procedure, your surgeon makes an incision in your lower abdomen or performs the surgery through small incisions using thin instruments and a video camera (laparoscopic surgery).

Your surgeon secures stitches (sutures) in the tissue near the bladder neck.

For bladder neck suspension performed abdominally, you'll need general or spinal anesthesia. Recovery takes several weeks, and you might need to use a urinary catheter until you can urinate normally. Recovery time is likely to be shorter with laparoscopic surgery.

Certain procedures to treat overactive bladder involve stimulation — using small, electrical impulses — of the nerves that signal the need to urinate.

- **Sacral nerve stimulation.** Your surgeon implants a small, pacemaker-like device under your skin, usually in your buttock. Attached to the device (stimulator) is a thin, electrode-tipped wire that carries electrical impulses to the sacral nerve. These painless electrical impulses block messages of needing to urinate sent by an overactive bladder to your brain.

You can try sacral nerve stimulation by having the wire placed under your skin in a minor surgical procedure and wearing the stimulator externally. Later, you can have the stimulator implanted if it substantially improves your symptoms.

Surgery to implant the stimulator is an outpatient procedure done in an operating room under local anesthesia and mild sedation. Your doctor can adjust the level of stimulation with a hand-held programmer, and you also have a control to use for adjustments.

- **Tibial nerve stimulation.** In this procedure, a needle placed through the skin near your ankle sends electrical stimulation from a nerve in your leg (tibial nerve) to your spine, where it connects with the nerves that control the bladder.

Tibial nerve stimulation takes place over 12 weekly sessions, each lasting about 30 minutes. Based on your response to the treatment, your doctor might recommend follow-up sessions at regular intervals to maintain the results.

Finding an effective remedy for urinary incontinence might take time, with several steps along the way. If a conservative treatment isn't working for you, ask your doctor if there might be another solution to your problem.

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