



Surgery for Stress Urinary Incontinence

Stress urinary *incontinence* (SUI) is the leakage of urine with physical activity, such as exercise, or when coughing, laughing, or sneezing. It is a common problem in women. SUI can be treated with both nonsurgical and surgical treatment methods.

This pamphlet explains

- *causes and symptoms of SUI*
- *nonsurgical treatment options*
- *surgical treatment options*
- *risks of surgery*
- *recovery from surgery*

Stress Urinary Incontinence

Urinary incontinence is the uncontrolled leakage of urine. Most women with urinary incontinence leak small amounts of urine. Frequent, more severe leakage is less common.

There are different types of urinary incontinence. In SUI, a woman leaks urine when she coughs, laughs, or sneezes or during certain activities, such as walking, running, or exercising.

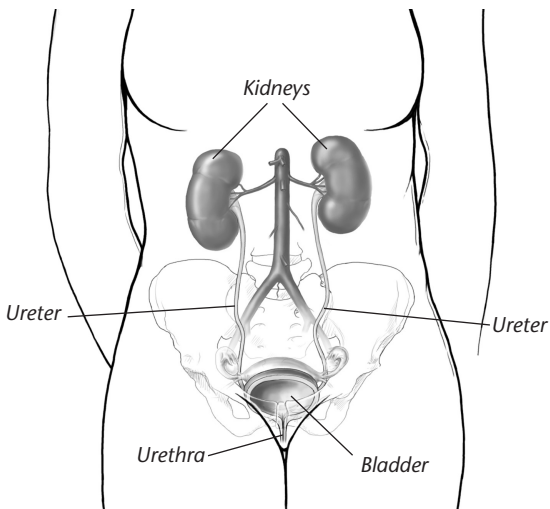
SUI is a type of *pelvic floor disorder*. These disorders occur when tissues and muscles that support the *urethra*, *bladder*, *uterus*, or *rectum* are damaged. In SUI, the *sphincter muscle* that controls the urethra weakens, which may occur from pregnancy, childbirth, or aging.

Nonsurgical Treatment Options

If you have SUI and your symptoms bother you, your health care professional may suggest nonsurgical treatments first. Lifestyle changes, such as drinking less fluid, limiting caffeine, stopping smoking, and losing weight, can help decrease the number of times you leak urine.

Other nonsurgical options include pelvic muscle exercises (*Kegel exercises*), physical therapy and bio-feedback, or use of a *pessary*. Another option is an over-the-counter product that is inserted into the *vagina* like a tampon. If these treatments do not improve the problem, surgery may help.

Female Urinary Tract



Normal urination (also called voiding) occurs when a woman can empty her bladder when she feels the need to do so. In normal voiding, the muscles around the urethra relax. The bladder then contracts and urine flows to the urethra and out of the body. When the bladder is almost empty, the muscles around the urethra contract. The bladder then relaxes and the stream of urine stops flowing.

Surgical Treatment Options

Surgery improves SUI symptoms in most women. One option in some situations is to have injections into the tissues around the urethra. This may be an option for women who do not want a more invasive procedure. It is a minor procedure that can be done in the office.

There are two other main types of surgery: 1) urethral slings and 2) colposuspension. These procedures can be done through an incision (cut) in the abdomen, through the vagina, or with **laparoscopy**. The type of surgery you will have depends on many factors. You and your health care professional should discuss these factors before choosing which type of surgery is right for you:

- Age
- Future childbearing plans
- Lifestyle
- Need for **hysterectomy** or treatment of other pelvic problems
- Medical history (if you have had **radiation therapy** for pelvic cancer or have already had surgery for incontinence)
- General health
- Cause of the problem

If necessary, surgical procedures can be combined to give the best results. For example, an SUI procedure may be done along with a pelvic support procedure in order to decrease the risk of developing SUI after the surgery.

Before you have surgery, you should weigh all of the risks and benefits of your surgical options. Your health care professional can discuss these risks and benefits with you.

Injections

Synthetic materials are injected into the tissue around the urethra to provide support and to tighten the opening of the bladder neck. The procedure usually is performed in your health care professional's office with local **anesthesia**. A lighted scope is inserted into the urethra and the material is injected through a thin needle. The procedure takes less than 20 minutes. It may take two to three or more injections to get the desired result. The injections may improve symptoms but usually do not result in a complete cure of incontinence.

Midurethral Sling

The midurethral sling is the most common type of surgery used to correct SUI. The sling is a narrow strap made of synthetic mesh that is placed under the urethra. It acts as a hammock to lift or support the urethra and the neck of the bladder.

The mesh is threaded under the urethra using needle-like instruments through a small incision (cut) that is made vaginally. There are two ways in which midurethral slings can be placed:

1. Retropubic sling—The retropubic sling is placed behind the pubic bone through two small incisions in the abdomen. The resulting sling is shaped like a "U" behind the pubic bone.
2. Transobturator sling—The transobturator sling is placed under the pubic bone through two small incisions in the thigh. The resulting sling is shaped like a "W" under the pubic bone.

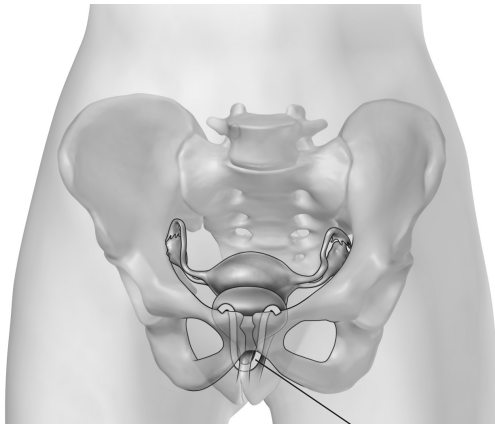
Slings are held in place by the surrounding tissues. Midurethral sling procedures usually take less than 30 minutes to perform. They are outpatient procedures, meaning that you usually can go home the same day. Recovery time generally is quicker than with other procedures for SUI.

Use of the mesh midurethral sling is supported by the American Urogynecologic Society and the Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction.

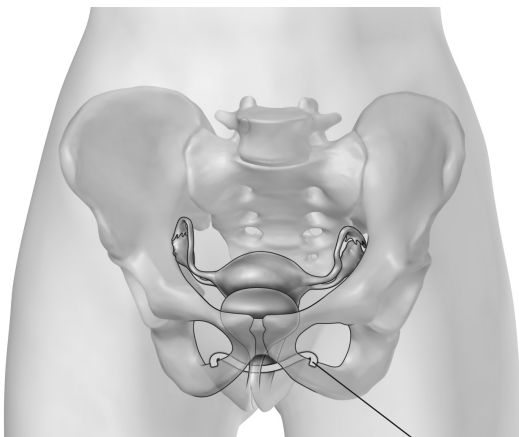
Traditional Sling

In this type of surgery, the sling is a strip of your own tissue taken from the lower abdomen or thigh. Two tunnels are made on either side of the vagina, and the sling is threaded behind the pubic bone and under the urethra, lifting it up. The ends of the sling are stitched in place through an incision in the abdomen. This type of surgery often is used if you have had complications related to a prior synthetic midurethral sling, have known reactions to synthetic mesh, or are undergoing surgery for repair of the urethra at the same time. Traditional sling surgery requires more recovery time than midurethral sling surgery. You usually will need to stay in the hospital for a few days when having traditional sling surgery.

Midurethral Slings



Retropubic sling



Transobturator sling

Colposuspension

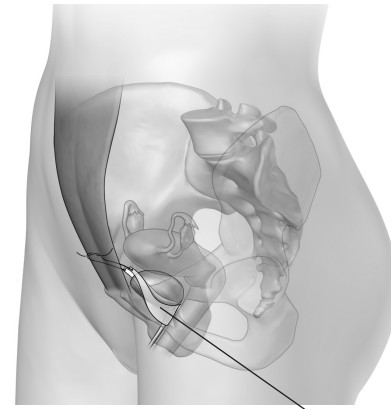
In colposuspension, the part of the urethra nearest to the bladder is restored to its normal position. The most common type of colposuspension performed is called the Burch procedure. The bladder neck is supported with a few stitches placed on either side of the urethra. These stitches keep the bladder neck in place and help support the urethra. Colposuspension procedures can be performed with an abdominal incision or with laparoscopy. When performed through an abdominal incision, the recovery time is similar to that of a traditional sling procedure. When done with laparoscopy, you may be able to go home the same day.

Risks of Surgery

All surgery involves some risk. The following risks are associated with any type of surgery for SUI:

- Injury to the bladder, bowel, blood vessels, or nerves
- Bleeding
- Infection of the urinary tract or wound infections

Traditional Sling



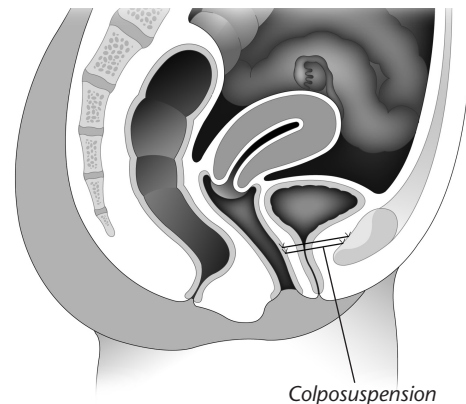
Sling made from your own tissue

- Urinary problems after the procedure (difficulty urinating or urgency symptoms)
- Problems related to the anesthesia used

Specific risks are associated with each procedure. Examples of specific risks include the following:

- Urinary tract infections and urinary problems are more common in women who have had traditional sling procedures than in those who have had colposuspension.
- Problems with emptying the bladder can occur after traditional sling procedures or after a colposuspension. Additional surgery may be needed to loosen the sling or remove stitches from a colposuspension.
- The bladder or other pelvic organs may be injured by the instruments used to place the midurethral sling. This occurs more often during retropubic sling procedures, when the sling passes behind the pubic bone. However, this injury usually does not lead to long-term problems.

Colposuspension



Colposuspension

- If synthetic mesh is used, there is a small risk (less than 5 percent) that the mesh will erode through the vaginal tissue. Mesh erosion can cause long-lasting pain, infections, and pain during sexual intercourse. Additional surgery may be needed to correct the problem.
- Synthetic midurethral slings are not recommended if you want to become pregnant in the future. Nonsurgical treatments may be the best choices if you have not completed your family.

Recovery

The time needed to recover varies. It is longer for abdominal surgery and shorter for laparoscopic or vaginal surgery. The hospital stay may be longer if other procedures are done at the same time.

After surgery, discomfort may last for a few days or weeks. The degree of discomfort may be different for each woman. If more than one procedure is done, there may be more pain than if only an SUI procedure is done.

Some women may find it hard to urinate for a while or notice that they urinate more slowly than they did before surgery. During this time, they may need to use a *catheter* to empty their bladders a few times each day. In rare cases, if a woman is not able to void on her own, the stitches or the sling may need to be adjusted or removed.

Be sure to contact your health care professional if you have problems (see box “Signs of a Problem After Surgery”). To speed up recovery, you should avoid any-

Signs of a Problem After Surgery

Make sure you know the signs of a problem related to surgery. Contact your health care professional if you experience any of the following symptoms:

- Vomiting
- Fainting
- Redness or discharge from incisions
- Abnormal vaginal discharge
- Inability to urinate or feeling that you cannot empty your bladder completely
- Burning during urination or blood in the urine (which may signal a urinary tract infection)

The following symptoms may indicate a serious problem. Contact your health care professional right away if you have any of the following:

- Severe abdominal pain or cramping
- Heavy bleeding
- Fever or chills
- Shortness of breath or chest pain

thing that puts stress on the surgical area, such as the following activities:

- Excessive straining
- Strenuous exercise
- Heavy lifting

Ask your health care professional about when you can resume intercourse, using tampons, driving, exercise, and daily activities.

Finally...

SUI is a common problem for women. If other treatments do not work and your symptoms are bothersome, surgery may be an option. For many women who have surgery, recovery time is short and success rates are good.

Glossary

Anesthesia: Relief of pain by loss of sensation.

Bladder: A hollow, muscular organ in which urine is stored.

Catheter: A tube used to drain fluid from or give fluid to the body.

Hysterectomy: Surgery to remove the uterus.

Kegel Exercises: Pelvic muscle exercises. Doing these exercises helps with bladder and bowel control as well as sexual function.

Laparoscopy: A surgical procedure in which a thin, lighted telescope called a laparoscope is inserted through a small incision (cut) in the abdomen. The laparoscope is used to view the pelvic organs. Other instruments can be used with it to perform surgery.

Pelvic Floor Disorder: Any disorder that affects the muscles and tissues that support the pelvic organs.

Pessary: A device that can be inserted into the vagina to support the organs that have dropped down or to help control urine leakage.

Radiation Therapy: Treatment with radiation.

Rectum: The last part of the digestive tract.

Sphincter Muscle: A muscle that can close a bodily opening, such as the sphincter muscle of the anus.

Stress Urinary Incontinence (SUI): Involuntary loss of urine with physical exertion, sneezing, or coughing.

Synthetic: Made by a chemical process, usually to imitate a natural material.

Urethra: A tube-like structure. Urine flows through this tube when it leaves the body.

Uterus: A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus.

Vagina: A tube-like structure surrounded by muscles. The vagina leads from the uterus to the outside of the body.

This information is designed as an educational aid to patients and sets forth current information and opinions related to women's health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician's independent professional judgment. For ACOG's complete disclaimer, visit www.acog.org/WomensHealth-Disclaimer.

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