

Incontinence

What is incontinence?

Urinary incontinence is defined as the involuntary loss of urine. You may leak urine, or you may not be able to “hold” your urine when you can’t get to a bathroom. When any part of the urinary system malfunctions, incontinence can result.

Who is affected by incontinence?

Urinary incontinence is reported to affect 13-25 million people in the United States. This is most likely a low estimation due to underreporting. Many patients do not seek treatment due to embarrassment, or a misperception that nothing can be done about it. Many women believe that incontinence is a normal part of the aging process. Fortunately, once identified, urinary incontinence can usually be successfully treated.

What causes incontinence?

Urinary incontinence can be caused by many factors. A few of the most common causes are:

- Pregnancy and childbirth
- Diabetes
- Bladder or kidney infection
- Menopausal drying/thinning of the urethra
- Interstitial cystitis
- Excess alcohol consumption
- Excess caffeine consumption
- Excess fluid consumption
- Certain medications
- Nervous system disorders that may effect the lower urinary tract
 - Spinal cord lesions
 - Multiple sclerosis
 - Parkinson’s
 - Stroke

What are the different types of incontinence?

Stress Incontinence

Stress incontinence occurs when the pelvic muscles have been damaged, or the sphincter muscle has weakened. This causes the

bladder to leak during exercise, coughing, laughing, sneezing, or any other activity.

Urge Incontinence/Detrusor Instability/Overactive Bladder

Urge incontinence is the involuntary loss of urine associated with an abrupt, strong, and uncontrollable urge to void. This is caused by overactivity of the detrusor muscle, or it can be the result of damaged nerve pathways from the bladder to the brain. Bladder spasms can also be the result of conditioning. For example, many people are continent when they are out all day, but when they put the key in the front door, they have a sudden urge to void. This could be the result of many years of using the bathroom immediately upon arriving home.

Mixed Incontinence

The presence of stress and urge incontinence symptoms together.

Overflow Incontinence

Overflow incontinence refers to the leakage that occurs when the amount of urine produced exceeds the bladder's holding capacity. This type of incontinence is common in women with a large cystocele. The urge to void is usually absent. When urinating, there may be intermittent flow, hesitancy, a weak stream, or dribbling.

How is incontinence diagnosed?

Urinary incontinence is diagnosed by a thorough clinical evaluation.

This may include:

- Detailed medical and drug history
- Pelvic exam
- Voiding diary (recorded over 3-7 days)
- Urinalysis and culture
- Urodynamics (cystometrogram)

How is urinary incontinence treated?

Treatment of urinary incontinence depends on the type of incontinence you have. The three major categories of treatment are behavioral modification, pharmacological therapy, and surgical treatment.

Cystometrogram (CMG)

What is a cystometrogram?

A cystometrogram or CMG is a test used to evaluate your bladder's ability to store and release urine.

How to prepare?

Please arrive for your procedure on time. Do **not** empty your bladder for 1 hour prior to your appointment time. You may eat and drink as usual and remain active right up until the time of your cystometrogram.

What to expect?

Once you are settled in the room you will be asked to disrobe from the waist down. A physician or nurse will talk to you about any urinary problems you have experienced in the past. He or she will also take a brief medical history and discuss which medications you are currently taking.

You will then be asked to empty your bladder into a special commode. This commode can record the rate at which you empty your bladder, as well as the amount of urine you emptied at that particular time.

A catheter (a thin, long, flexible tube) is then inserted into the bladder and any urine remaining in the bladder is drained and measured (post-void residual). Then, a second catheter is placed into the rectum.

The catheter will be used to fill your bladder with a sterile saline solution. Meanwhile, the physician or nurse will ask you several questions about the sensations you are experiencing. Then you will be asked to perform certain activities, such as coughing, or pushing ("bearing down"), while your bladder is being filled.

Once you feel that your bladder is filled to capacity, you will be asked to empty it with the catheters in place. The computerized instrument will record the pressures generated by your bladder. The catheters will be removed after the computerized instrument collects sufficient pressure readings.

The test takes approximately 30 minutes to complete. You may resume your normal activities immediately.

How are the results interpreted?

Normal

The amount of urine left in the bladder after urinating, when the urge to urinate is felt, and when urine can no longer be held back are within normal ranges.

Abnormal

One or more of the following may be found:

- More than a normal amount of fluid remains in the bladder after urinating. A large volume of urine remaining in the bladder suggests the flow of urine out of the bladder is partially blocked or the bladder muscle is not contracting properly to force all the urine out (overflow incontinence).
- The bladder contains less fluid, or more fluid than is considered normal when the first urge to urinate is felt.
- The person is unable to retain urine when the bladder contains less than the normal amount of fluid for most people.

Treating Incontinence: Behavioral Modification

Lifestyle Changes

- **Quit Smoking-** Smoking can lead to a chronic cough that strains pelvic floor muscles. It may also damage the bladder and urethra.
- **Lose Weight-** Excess weight puts extra pressure on the pelvic floor muscles.
- **Dietary Changes-** Some foods may make you urinate more, so you should avoid them. These include caffeine and alcohol.

Timed Voiding

Timed voiding means urinating on a set schedule. This empties the bladder and helps avoid accidents. Visit the restroom at the scheduled time. **Do not** wait for the urge to urinate. Your physician may instruct you to urinate every 2-4 hours, while awake. If you have to, set an alarm to remind you. The goal of this therapy is simply to keep the patient dry.

Bladder Re-training

This involves timed voiding, but the length of time between the bathroom trips is gradually increased. This therapy trains the bladder to delay voiding for larger time intervals.

Pelvic Muscle Exercises (Kegels)

Kegel exercises help to strengthen the pelvic floor muscles. The success of pelvic muscle exercises depends on the patient's ability to correctly identify the muscles for the exercise and her commitment to performing them daily.

Kegel Exercises

Kegel exercises are easy to learn and simple to do. If you do them right, no one can tell your doing them, so they can be done anywhere.

Isolating The Pelvic Floor Muscles

- While urinating, try to stop the flow of urine. Start and stop as often as you can.
- Tighten your muscles as if you were stopping your stream of urine, but do it when you are not urinating.
- Tighten your rectum as if trying to not pass gas. Contract your anus, but don't move your buttocks.

***If you have isolated the right muscles, your leg, buttock or stomach muscles should not move.

How long should I hold them?

Try holding each contraction for 5 seconds. This will be difficult at first but it will get easier as the pelvic floor gets stronger.

How often should I do them?

Kegels should be done several times a day. The more you do, the stronger the muscles become. However, just like any exercise, the muscles can become fatigued if overworked.

When and Where can I do my Kegels?

Kegels can be done anywhere and anytime. After you have learned to isolate the correct muscle group, it is recommended that you do not continue to use them to stop the flow of urine. It is possible that this could eventually lead to a dysfunctional voiding pattern.

Treating Incontinence: Medication

Below are some types of medications that may help treat incontinence.

- **Antispasmodics:** These medications may increase the amount of urine the bladder can hold. They also help the bladder muscle work more efficiently. Examples of this type of medication are Detrol, Enablex, Sanctura, Vesicare, Ditropan, etc...

***Side effects of these medications include dry mouth, constipation, and blurred vision. Sucking on *sugar free hard candy* is recommended to help with dry mouth.

- **Mild Antidepressants**
- **Estrogen:** Hormone therapy may help to improve muscle tone in the bladder and urethra.
- **Antibiotics:** This type of medication will be prescribed if infection is present.

Tips for Taking Incontinence Medication

- Take your medication as prescribed by your doctor
- Call your doctor if you have problems taking your medication or are experiencing side effects
- Do not stop taking your medication until after you have been instructed to do so by your physician
- Be patient. Many of these medications take a few weeks to work. Some adjustments may be needed to find the right medication and dosage for you.

Treating Incontinence: Surgery

There are many types of different surgical procedures that may be used to treat incontinence. The type of surgery recommended will depend on the type and cause of your incontinence.

Slings: Urethral slings are used to treat stress incontinence (SI). SI is usually caused by sagging of the urethra and/or bladder neck, or by problems with the sphincter (muscular outlet of the bladder). This involves placing a "sling" around the urethra to lift it into place and to exert pressure on the urethra to aid in holding the urine.

The advantages of sling surgery are:

- Usually done in an outpatient setting (go home the same day)
- Quick recovery time
- Very little to no pain
- Extremely effective in eliminating incontinence

What happens during surgery?

- The operation is usually performed under local anesthesia and mild sedation, or with regional anesthesia.
- You will have one small incision in your vagina and two in your groin or lower abdomen.
- A special tape or mesh is looped under your urethra to provide lift and support.
- At the end of the procedure, the surgeon looks inside your bladder to check for bladder injury.
- The operation takes 15-30 minutes to perform.

What are the risks and possible complications?

- Damage to the bladder, urethra, or nearby blood vessels
- Bleeding
- Infection
- Blood clots
- Mesh erosion or rejection of the sling material (the sling material may wear away the tissue of the urethra or vagina)
- The stitches used to attach the sling may pull out
- A small percentage of patients will have trouble urinating immediately following the procedure and may need a catheter until normal bladder emptying is established. This catheter is usually removed 3-7 days post-op.

What can I expect during recovery?

Most women return home within 24 hours of the procedure. You will be sent home once you are feeling well and are able to urinate. If you need pain relief, mild analgesics are usually enough.

It is important to rest after the operation and allow yourself to heal.

General recommendations are:

- Restrict activity for first 2 weeks following procedure
- Weeks 2-6, light activity only
- Avoid heavy lifting for 6 weeks. This includes shopping bags, laundry baskets, and children.
- No sexual activity for 6 weeks
- No sports or strenuous exercise for 6 weeks

Stimulator Implants – InterStim: This is used to treat patients with urinary control problems that have not had success with – or could not tolerate- more conventional treatments. It is usually used to treat severe overactive bladder, urinary retention, overflow incontinence, and interstitial cystitis.

How does InterStim Therapy work?

- InterStim Therapy uses a small stimulation system implanted under the skin, which provides electrical stimulation of the sacral nerves located near the tailbone.
- The sacral nerves control your bladder function. By gently stimulating the sacral nerves, InterStim Therapy helps restore urinary control.
- Once the device is implanted, the stimulation can easily be adjusted or deactivated by yourself at home or by your doctor in a simple in-office programming session.
- InterStim Therapy is a staged procedure. This means that you will start with a test stage. If this stage is successful, permanent implantation will follow 1-3 weeks later.

InterStim - Sacral Nerve Stimulation

An Innovative Therapy to Restore Bladder and Pelvic Floor Function and Comfort

An estimated 15 million people in the United States experience significant urinary frequency, loss of urinary control, and/or unexplained pelvic pain. These symptoms can severely lower your quality of life and often do not respond to medication or traditional surgical treatments.

Kenneth Finkelstein, D.O. and Women's Healthcare of Illinois offers InterStim or Sacral Nerve Stimulation to patients who suffer the debilitating consequences of bladder and pelvic floor dysfunction. Our ability to improve or eliminate your symptoms is made possible by restoring the function of your bladder and/or pelvic floor through safe, painless modulation of the nerves responsible for bladder and pelvic floor activity.

This is a safe, FDA-approved therapy that has demonstrated 70-80% success rates in significantly improving patients' functioning and quality of life.

This guide provides:

- An overview of the therapy and why it works.
- Information and instructions concerning the test stimulation information.
- Instructions concerning on-going therapy.

What is Sacral Nerve Stimulation?

Medical researchers have known for over 30 years that the sacral nerves control all the functions of the pelvis and its organs. Electrical impulses travel from the brain to the organs and muscles in the pelvis via the sacral nerves. These impulses are responsible for urinary and fecal elimination, muscle coordination, reproduction organs and the genitals.

Sacral Nerve Stimulation is the introduction of gentle, soothing stimulation or pulsing just below the surface of the skin over the sacrum where the sacral nerves reside. The stimulation is provided by an implanted unit the size of a silver dollar. The unit is placed underneath the skin so as not to place limitations of any kind on the activities of the patient.

Why does it Work?

Scientists have discovered that the exquisite coordination of organs and muscles in the pelvis necessary for normal, pain-free function can become disrupted by any number of events. For example, bladder infections, child birth, hysterectomies, bowel and bladder surgeries, genetic predisposition or almost any other pelvic event can be an insult to the sacral nerves. The insult may lead to faulty nerve impulses traversing the nerves causing pelvic floor dysfunction, urgency frequency and pelvic pain.

The mild stimulation provided by the Sacral Nerve Stimulator serves to correct the communication signals to the sacral nerves and thereby improving urinary frequency, urge incontinence, urinary retention, interstitial cystitis, irritable bowel syndrome and several other ailments.

Why is it Safe?

The gentle stimulation required to correct faulty sacral nerve communications is introduced in the tissues just under the skin over the sacrum (tailbone) through a small lead (wire). The lead is not actually touching the nerves and is not anywhere near the spine. The technology is similar to that of cardiac pacemakers and has been proven safe during the last 15 years of use on an international scale. Not a single patient has ever suffered a non-reversible health consequence as a result of Sacral Nerve Stimulation and the treatment is reversible should the patient decide not to continue with the therapy for any reason.

Stage One: Test Stimulation

Sacral Nerve Stimulation is unique in that a test is performed to assess the effectiveness of the therapy prior to placing a permanent implant. An outpatient procedure is performed in the operating room under local anesthetic with sedation.

Two small incisions are made in the skin. One incision is over the sacrum just to the side of the sacrum's midline. A second incision is made in the upper buttock.

The lead is placed just under the skin through the incision over the sacrum. A temporary lead extension is placed just under the skin through the incision over the upper buttock. The temporary lead extension is plugged into a temporary stimulator that can be worn on the waistband either inside or outside of the clothing.

The temporary stimulator is used for two weeks to assess the results of the stimulation.

Pre- Test Instructions:

- A voiding diary is maintained for three days.
- No aspirin or other blood thinning medications should be taken for 7 days. Nothing to eat after midnight the night prior to the test date.

Post Test Instructions:

- Maintain voiding diary.
- Take antibiotics as prescribed.
- Take Tylenol or prescribed medication for pain if needed.
- Dressings over the two incisions may be removed the day after the procedure (tape strips under the dressings will remain in place).
- Showers may resume 24 hours after the procedure (no soaking). Unplug test box prior to showering.
- Limit lifting (nothing over 10 pounds for 30 days).

Use of the Temporary Stimulator:

The unit is small enough to be worn inside or outside of your clothing and is powered by an ordinary 9 volt battery. The device also has a clip that can be used to hold the unit on the waistband.

There is an on-off/power dial marked with the letter "A". This dial is used to activate the unit and control the intensity of the stimulation. When the unit has been turned on using the "A" dial, a small green light next to the "A" dial flashes. The green flashing light indicates the unit is functioning normally.

Use the power dial to ensure you feel the stimulation prominently, but comfortably.

Stage Two: Remove Test Lead or Place the In-Dwelling Stimulator

After approximately 14 days, you will return to the hospital with your voiding diary. The pre and post-test diaries will be compared and your doctor will review the results with you and your family. If the test was a success, you may elect to have the implanted stimulator placed in the same incision created to place the temporary lead extension (it will not be necessary to disturb the incision that was made over the sacrum).

You will receive your patient programmer and instructions for using it to activate the stimulator as well as how to increase and decrease the intensity of the stimulation as you desire.

If the test was deemed a failure, or if you elect not to move forward with the implanted stimulator for any reason, the test lead will be removed.

Pre-Procedure Instructions:

- No eating after midnight the night before the procedure.
- No aspirin or blood thinning medications for one week prior to the procedure. Bring your "During Test" voiding diary with you.

Post Procedure Instructions:

- Dressing may be removed the next day.
- Tape Strips will remain until they fall off on their own.
- You may shower after 24 hours (no soaking).
- You may activate the stimulator with your programmer whenever you desire.
- Call the office for a follow up appointment to take place within 2-3 weeks to check the incision and adjust stimulator programming if necessary.
- Call the office if you develop any fevers or redness at the incisions.
- Limit lifting (nothing over 10 pounds for 30 days).

Precautions:

- Diathermy (for muscle relaxation) should not be used if nerve stimulator is present.
- Some theft detectors and screening devices may rarely cause the stimulator to turn on or off, or cause a harmless brief sensation as you approach the device.
- You will have an ill card to present at the airport or other security area in the event the device activates the security unit.
- Be certain to let your physicians know you have a pacemaker device and always shut the device off prior to undergoing any surgical procedure.
- MRI scans should not be performed.

Urethral Slings

Urethral slings are used to treat stress incontinence (SI). SI is usually caused by sagging of the urethra and/or bladder neck, or by problems with the sphincter (muscular outlet of the bladder). This involves placing a "sling" around the urethra to lift it into place and to exert pressure on the urethra to aid in holding the urine.

The advantages of sling surgery are:

- Usually done in an outpatient setting (go home the same day)
- Quick recovery time
- Very little to no pain
- Extremely effective in eliminating incontinence

What happens during surgery?

- The operation is usually performed under local anesthesia and mild sedation, or with regional anesthesia.
- You will have one small incision in your vagina and two in your groin or lower abdomen.
- A special tape or mesh is looped under your urethra to provide lift and support.
- At the end of the procedure, the surgeon looks inside your bladder to check for bladder injury.
- The operation takes 15-30 minutes to perform.

What are the risks and possible complications?

- Damage to the bladder, urethra, or nearby blood vessels
- Bleeding
- Infection
- Blood clots
- Mesh erosion or rejection of the sling material (the sling material may wear away the tissue of the urethra or vagina)
- The stitches used to attach the sling may pull out
- A small percentage of patients will have trouble urinating immediately following the procedure and may need a catheter until normal bladder emptying is established. This catheter is usually removed 3-7 days post-op.

What can I expect during recovery?

Most women return home within 24 hours of the procedure. You will be sent home once you are feeling well and are able to urinate. If you need pain relief, mild analgesics are usually enough.

It is important to rest after the operation and allow yourself to heal.

General recommendations are:

- Restrict activity for first 2 weeks following procedure
- Weeks 2-6, light activity only
- Avoid heavy lifting for 6 weeks. This includes shopping bags, laundry baskets, and children.
- No sexual activity for 6 weeks
- No sports or strenuous exercise for 6 weeks