

Urinary incontinence

Overview

Urinary Incontinence happens when there's *involuntary* leakage of urine.

Are there different types of urinary incontinence?

There are different types of urinary incontinence:

Stress incontinence – Urine leaks out during exertions such physical activities, or when you cough or laugh

Urge incontinence – Urine leaks when there is a sensation that you need to go to the toilet immediately. (See Overactive bladder)

Overflow incontinence – Urine leaks when you are unable to fully empty your bladder.

Total incontinence – Urine leaks continuously

Stress urinary incontinence

Symptoms

Stress urinary incontinence occurs when you leak urine during exertion such as during physical activity. It may also happen when you cough, sneeze; lift something heavy, change positions, or exercise.

Stress urinary incontinence is more common in women affecting up to 50% of women worldwide. It can happen in men usually after procedure or surgery to the prostate area.

It is a source of psychological distress to the individual and also imposes a financial burden to the individual and the health care system.

A set of pelvic floor muscles and the urinary sphincters control urinary continence (prevent you from leaking urine during exertion)

When either of this is weak, stress urinary incontinence occurs.

Causes

- Pregnancy
- Childbirth
- The loss of pelvic muscle tone often due to aging
- Pelvic organ prolapse
- Chronic cough
- Obesity
- Post-menopausal
- Smoking
- Surgery to the pelvic and/or vaginal areas
- Surgery to the prostate (men)



Although stress urinary incontinence is more common among older individuals but it *should not* be considered as normal part of aging.

When to see a doctor

You should see a specialist when the urinary incontinence is affecting your quality of life.

What should I expect at my first visit to a Urologist?

Your Urologist will first take a history, perform physical examination and do a series of tests to rule out any organic causes to your urinary symptoms. These may include:

- Internal examination for women
- Midstream urine analysis
- Urine Culture and Sensitivity analysis of the bacteria involved
- Bedside ultrasound examination of the kidneys and bladder
- Uroflowmetry and post void residual urine

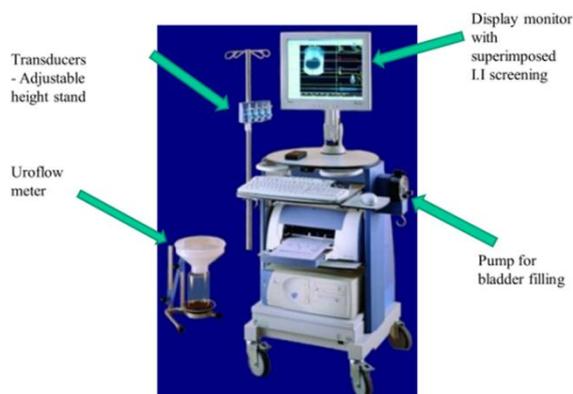
Once the diagnosis has been established, the Urologist will do some specialised investigations to determine the type and severity of the urinary incontinence before discussing treatment options with you.

Specialised test such as urodynamic studies is very important especially when conservative management has failed or when a surgical treatment is being offered.

What is Urodynamic study? Does it cause pain?

Urodynamic study is a test to assess the function of the bladder and urethra in an *objective* way. The Urologist will be able to assess the pressure changes in the detrusor muscle and the behaviour of the bladder when fluid (normal saline with/without contrast) is being infused into the bladder.

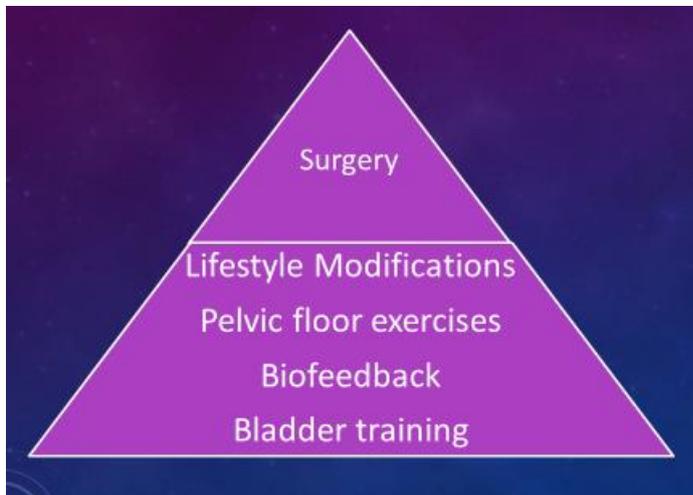
It is not painful. Small transducers are being inserted into the bladder and rectum in order to measure the pressures of the bladder and abdomen respectively. It may cause some discomfort but not pain.



What are the treatment options?

The treatment usually starts with conservative management, if this fails, surgical options will be discussed with you.

To date, there is no effective medication to treat stress urinary incontinence.



Pelvic floor exercise with/without biofeedback

Pelvic Floor Muscle Exercises, also known as Kegel exercises is a well proven initial step in improving stress urinary incontinence. It is a set of exercises to strengthen up the pelvic floor muscles. These muscles are important in maintaining continence during exertions.

The Continence Nurse will teach you to perform 1 set of 5 *fast* and 5 *slow squeezes* of the pelvic floor muscles, and about 10 *cycles per day*. Without proper training, sometimes it is hard to know if you are performing the exercises correctly.

Biofeedback is another method of teaching pelvic floor muscle control that uses special instruments that measure the strength of the muscles during pelvic floor exercises as well as telling the patient whether the correct muscles are being used.

Surgery

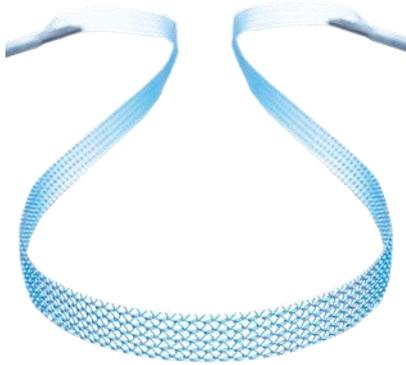
- **Bulking agent**

Minimally invasive surgical therapy such as injection of bulking agent can be an option to patients who failed conservative management. However, this method although is low risk, the outcome is variable and temporary. It is normally offered to older patients who can't tolerate the risk of surgery.



The bulking agent is injected around the area to prevent urine leak. It is done using a cystoscope which is inserted through the urethra under general anaesthesia.

- **Midurethral sling**



The insertion of mid-urethral sling or male sling (male patients) and its different insertion methods have gained widespread popularity and are now the most frequently used surgical interventions stress incontinence.

It is a minimally-invasive procedure where a small incision will be made in the vaginal area. (women) Two small incisions will be made either on the inner aspects of the thighs or lower aspect of the abdomen.

As for the male patients, similarly an incision will be made at the perineum area and 2 small incisions made on the inner aspects of the thighs. The sling is then placed to “support” the urethra much like the effect of a hammock.

The surgery is usually a day surgery or 1 day stay depending on the complexity of the procedure. An indwelling urinary catheter will be placed and removed before the patient is ready to be discharged.

- **Autologous pubovaginal slings**

It is imperative for the surgeons to be aware of complications of synthetic slings especially in patients who are susceptible to sling erosions. Autologous pubovaginal slings involves usage of patients’ own tissues to create the sling in order to avoid the risks of sling erosions.

Vaginal laser therapy

Laser therapy is applied through the vagina to induce thermal effect which induce collagen remodeling and tightening of the surrounding tissues and hence improve continence. This is done in the outpatient setting, over a few sessions and under local anaesthesia hence no down time at all.

