



URINARY INCONTINENCE AND SLING PROCEDURE

Urinary incontinence affects some 40% of adult women at some time in their lives, and a smaller percentage of adult men. Most incontinence is primary: this means there is no other bladder disease. It is however important to identify those patients whose incontinence is secondary to another disease, whether serious or not, and this may be based on history, examination, urine and blood testing, ultrasound and potentially telescopic bladder examination.

Primary incontinence is treated according to its severity. It is fair to say that nobody dies from incontinence, but it significantly compromises quality of life and is often readily treatable with very good results and low risk.

- Urge incontinence (UI) occurs with strong desire to void - 'urgency' or 'busting' - and is associated with frequency and night-time voiding. It results from bladder overactivity and irritability, the reasons for which are usually unknown. It is more common with aging, but may occur at almost any stage of life.
- Stress incontinence (SI) is leakage that occurs with cough, sneeze or strain. It results from weakness of the valve mechanism, usually secondary to a combination of previous pregnancies-childbirth, menopause and aging.

Management of SI differs from management of UI. As such, it is important to accurately characterise the incontinence, particularly when SI and UI co-exist, and specific investigations may be required for this.

Predominantly UI:

This troublesome incontinence often waxes and wanes in severity. It may be secondary to some other urinary tract disease, including urinary tract infection and bladder tumours.

Management is primarily non-surgical and our treatment approach is more conservative.

Caffeine is a bladder irritant and should be excluded from the diet: decaffeinated coffee may substitute for coffee, herbal infusions for tea, and Cola drinks omitted altogether.

Constipation will worsen bladder function and should be treated with fruit, fibre, fluids and medication if necessary.

Again, all patients should attempt a course of pelvic floor exercises and bladder retraining, although the success rate for this is poorer than it is for SI.

Oral medications may quieten down bladder overactivity but may have side-effects of dry mouth, constipation, nausea, lack of sweating and visual disturbance. They may be used intermittently or continuously, as tolerated.

Some patients without benefit from or unable to tolerate oral medications may be suitable for intermittent Botox injections directly into the bladder. This may be very effective at inhibiting bladder overactivity but may compromise bladder emptying. It requires a telescopic procedure typically under local anaesthetic in the clinic, and requires to be repeated every 6-12 months.

Rarely, more invasive surgery is appropriate, to increase bladder capacity and reduce overactivity. This involves either removing a part of the bladder muscle wall, or fusing a segment of bowel into the bladder. There is the option of a part-laparoscopic approach for this surgery.

Predominantly SI:

All patients should attempt pelvic floor exercises and up to 50% of patients are improved when these exercises are supervised by a dedicated physiotherapist.



Patients not cured with pelvic floor exercises may consider anti-incontinence surgery. Of the many surgical treatments that have been described, there remain two techniques that have success rates of 80% or greater and good long-term durability:

- sling procedures, and
- colposuspension.

Both support and tighten the bladder outlet and urethra.

- The urethral **sling** is designed to support the bladder neck and urethra, relocating this area to its normal anatomy.

Sling procedure is predominantly performed from the vagina. Consequently, it is associated with less pain and superior recovery when compared to abdominal anti-incontinence procedures, allowing an earlier return to normal function and shorter hospital stay. The wounds are smaller and are cosmetically excellent.

- **Colposuspension** is performed through the abdomen, from above the pubis, either open or laparoscopically. It does not appear to be as durable as sling procedures and is consequently less commonly performed.

One may be more applicable to an individual patient, than the other.

FURTHER INFORMATION ON SLING PROCEDURE

A number of materials have been used for the sling, both natural and artificial. Polypropylene mesh has been popular previously, but concerns relating to mesh-complications have significantly shifted practice away from mesh slings and back to autologous tissue slings.

This procedure has been widely performed since the late 1970s and has again become the standard of care because of f

Autologous (native) fascia is the white, tough, fibrous tissue that forms ligaments and tendons. A short length of this is harvested from the abdominal wall, a little above the pubis. Mobilising this fascia causes some post-operative pain and recovery of normal function is over a fortnight or so. General anaesthetic is required. It is impossible to reject this sling material as it is all your own and it is therefore the safest sling material.

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- microlax enema morning of the procedure for afternoon procedures, evening prior for morning procedures
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: diet and reinstate usual medications



urethral catheter and vaginal pack will be removed and discharge home once satisfactory voiding is confirmed

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- resume normal activities as tolerated from 2-4 weeks
- continue antibiotics x 1 week
- post-operative constipation is a common problem and may be minimised with good fluid intake, dietary fibre and laxatives.
- avoid heavy lifting for 2 weeks
- resume full normal activity including sexual intercourse by 4-6 weeks

WHAT CAN GO WRONG:

Although most cases proceed without particular difficulty and have excellent outcomes, surgical complications occur overall in <10% of patients, the most common of which are slowed voiding and de novo bladder storage symptoms and urgency.

The list below details potential complications recognised as common or serious, but this does not include the rare and extraordinary. Risk of death is approximately 0.03% in generally healthy patients.

AT THE TIME OF AND EARLY AFTER SURGERY:

- Bleeding requiring blood transfusion in < 1%
- Infection may require antibiotic treatment <3%
- Numbness or tingling in legs, genitalia and perineum is usually temporary
- Risk of death may be estimated using the nzRISK <https://nZRISK.com> on-line pre-operative calculator. It has been developed and validated for patients in New Zealand over the age of 18, to help patients and doctors balance benefits and risks of treatment.

LATER POTENTIAL COMPLICATIONS :

- Recurrent urinary incontinence <5%, commonly urge urinary incontinence but occasionally recurrent stress urinary incontinence
- Urine retention, needing to self-catheterise intermittently
- 1-2% of patients require subsequent loosening of the sling