Surgery for Urgency and Urge Incontinence

Introduction

Urgency and urge incontinence are caused when the bladder squeezes out urine - even if you want to hold on. These problems are often caused by an overactive bladder, sometimes called an unstable or irritable bladder.

There are several ways that these problems can be helped. These include:

- Pelvic floor muscle exercises
- Bladder retraining
- Changing what you eat and drink
- Electrical stimulation of the pelvic floor
- Prescription medications
- Neuromodulation
- Surgical procedures

There are two main operations for urgency and urge incontinence; however, there are now also other surgical options to consider including Botox and Sacral Nerve Stimulation.

Botulinum Toxin (Botox)

Botulinum toxin is licensed for the management of urinary incontinence in adult patients with symptoms of urinary incontinence, urgency and frequency and those with neurogenic detrusor overactivity due to subcervical spinal cord injury or multiple sclerosis. It is not yet licensed to treat stress incontinence. However, consultants in both the NHS and private practice are at liberty to use Botulinum toxin “off licence” but it should only be considered after all licensed or conventional treatments have been tried, and as either part of an audited series or in a trial setting. As such it has not yet been clinically approved; however, NICE (National Institute for Health and Clinical Excellence) has acknowledged it as a possible treatment.

The Botulinum toxin injection is given directly into the bladder muscle (detrusor). A telescope is passed through the urethra into the bladder and a fine needle is used to inject the muscle under direct vision. Usually 20 small injections are given scattered over the bladder wall. This procedure can be done under either general or local anaesthetic in a daycase setting or in a clinic under local anaesthetic. It does not require overnight admission to hospital as a rule. When the effects of the Botulinum toxin wear off, the injection can be repeated. This may be after 9-12 months.

When the procedure is performed under a local anaesthetic recovery is immediate. After a general anaesthetic, you should be fit to go home after 2-3 hours. The effect of the drug should not be noticeable within 3-4 days.

The side effects of the procedure include passing blood in the urine and urinary tract infection. The side effects of the Botulinum toxin include voiding difficulty in 10-20% and more rarely a reaction to Botulinum toxin (flu like symptoms, generalised muscle weakness). If you develop
voiding difficulty you will need to learn intermittent self catheterisation and may need to perform this several times a day for the first few weeks until the detrusor muscle starts to work more effectively again.

You need to have had detrusor overactivity diagnosed on urodynamic testing and should have tried conventional treatments such as bladder retraining and anticholinergic medication (eg oxybutynin, solifenacin, fesoteradine or trospium). You need to be prepared to learn to self catheterise in case you develop problems emptying your bladder. This would not be a permanent problem. There are a few medications that interact with Botulinum toxin— including nifedipine, diltiazem, verapamil and amlodipine. It is not safe to have Botulinum toxin therapy if you are pregnant, if you are allergic to egg albumin or if you suffer from any of the following conditions: Myasthenia gravis, Eaton-Lambert Syndrome or amyotrophic lateral sclerosis.

Your general practitioner will need to refer you to a urologist or urogynaecologist for consideration of the treatment and your local urology or urogynaecology clinic can give you more information if they offer the procedure.

**Sacral Nerve Stimulation**

For people with severe overactivity who have failed or could not tolerate more conservative treatments, implantable nerve stimulators can be used to control the bladder. However, it is not a treatment that is suitable for everyone and you should discuss this carefully with your GP or health professional.

It is a reversible option that can immediately reduce or eliminate the symptoms of overactive bladder including urgency and frequency, urge incontinence and urinary retention.

Sacral nerve stimulation or neuromodulation helps to correct wrong or unwanted messages sent along nerve pathways and may help you resume a more normal bladder function.

With sacral nerve stimulation a small device is surgically implanted to stimulate your sacral nerve with mild electrical impulses. There is an initial testing phase first followed by the implantation phase. Only a clinician can assess your suitability for this treatment.

Sacral Nerve Stimulation is also indicated for bowel incontinence and can be used to treat both bladder problems and bowel problems at the same time.

**Bladder Augmentation**

This is a major operation indicated for overactive bladder and symptoms of urgency and frequency. You should have tried all the alternative treatments before considering this type of surgery.

It involves cutting open the bladder - like a clam - and sewing a patch of intestine between the two halves. The patch can be made of small intestine (ileocystoplasty), large intestine (sigmoid cystoplasty) or stomach lining (gastro cystoplasty). The aim of all of these is to increase bladder capacity and reduce the instability.

After the operation a catheter will be put in place for between 7 to 10 days to keep the bladder empty while it heals. You should expect to be in hospital for around 10 days, with complete recovery within 3 to 4 months. Around two-thirds of all people who have this operation are cured, and three quarters are improved in some way.
However, there are several side effects which should also be considered before going ahead with this type of major surgery.

Mucus from the patch of intestine can block the bladder outlet. As well as this, the enlarged bladder cannot contract strongly enough to push out all the urine. Therefore most people who have this operation will have to use catheters to go to the toilet, and if this is the case, it will be a permanent situation for the rest of their lives.

As some of the bowel is cut out, diarrhoea and other bowel / nutritional problems can be caused and associated bacteria can cause recurrent infections in the bladder and urinary tract. This operation also increases the risk of developing bladder stones; however, regular check-ups will make sure these are spotted at an early stage.

This operation has several different names: bladder augmentation, clam cystoplasty, ileocystoplasty, Bramble cystoplasty, enterocystoplasty.

**Detrusor myectomy or autoaugmentation**

This is also a major operation and involves removing part of or the entire outer muscle layer that surrounds the bladder. This aims to weaken bladder contractions by removing the muscle.

A catheter is put in place during the operation. This is left in place for between 7 to 10 days to keep the bladder empty while it heals. The average time needed in hospital after the operation is 10 days, but complete recovery can take 3 to 4 months.

Just over half of all people who have this operation are cured, and around two thirds are improved. Since the muscle has been removed, the bladder cannot contract strongly enough to push out all the urine. Therefore, as with a Bladder Augmentation, many people who have this operation will have to use a catheter afterwards to go to the toilet and this will be permanent.

Your doctor or health professional can tell you what operations or surgical procedures may be suitable for you, what they involve, the chances of success and any side effects. Always seek medical support before considering surgery.