

## Incontinence, urinary - Treatment

### Treating urinary incontinence

The treatment you receive for urinary incontinence will depend on the type of incontinence you have and the severity of your symptoms. If your incontinence is caused by an underlying condition, such as an enlarged prostate gland in men, you will receive treatment for this first.

Conservative treatments, which do not involve medication or surgery, are tried first. These include:

- lifestyle changes
- pelvic floor muscle training
- bladder training

After this, medication or surgery may be considered.

### **Lifestyle changes**

Your GP may suggest that you make some simple changes to your lifestyle to reduce your incontinence. These changes can help improve your condition, regardless of the type of urinary incontinence you have.

For example, your GP may recommend:

- reducing your caffeine intake - caffeine is found in tea, coffee and cola and can increase the amount of urine your body produces
- drinking 1-1.5 litres (six to eight glasses) of fluid a day - drinking too much or too little can cause symptoms that affect the lower urinary tract (bladder and urethra)
- losing weight if you are overweight or obese - use the [healthy weight calculator](#) to find out if you are a healthy weight for your height

### **Pelvic floor muscle training**

Your pelvic floor muscles are the muscles you use to control the flow of urine as you urinate. They surround the bladder and urethra (the tube that carries urine from the bladder to outside the body).

Weak or damaged pelvic floor muscles can cause urinary incontinence, so exercising these muscles is often one of the first treatments recommended, whether you have stress, urge or mixed incontinence.

### **Referral**

Your GP may refer you to a specialist to start a programme of pelvic floor muscle training. Depending on what services are available in your area, you could be referred to:

- a continence adviser - a specialist nurse at an NHS continence service (see box, left)
- a urogynaecologist - a nurse who specialises in problems with the urinary system in women

- a physiotherapist - a healthcare professional trained in using physical methods to promote healing
- a specially trained practice nurse at your GP surgery

Your specialist will assess whether you are able to contract (squeeze) your pelvic floor muscles and by how much. If you can contract your pelvic floor muscles, you will be given an individual exercise programme based on your assessment. It should include:

- doing a minimum of eight muscle contractions at least three times a day
- doing these exercises for at least three months
- continuing with these exercise after three months if they are helping

The Bladder & Bowel Foundation has [pelvic floor exercise factsheets](#) for both men and women, which explain how to complete these exercises, although your specialist should teach you how to do them.

Research suggests that women who complete pelvic floor muscle training experience fewer leaking episodes and report a better quality of life. Studies from around the world show that, with proper supervision, conservative treatment such as pelvic floor muscle training can improve stress or mixed urinary incontinence in women by two-thirds.

In men, some studies have shown that pelvic floor muscle training can reduce urinary incontinence after surgery to remove the prostate gland. However, it is not clear if this also applies to urinary incontinence caused by other conditions.

### **Electrical stimulation**

If you are unable to contract your pelvic floor muscles, using a device that measures and stimulates the electrical signals in the muscles may be recommended. This is called electrical stimulation.

A small probe will be inserted into the vagina in women or the anus in men. An electrical current runs through the probe, which strengthens your pelvic floor muscles.

Some women may find electrical stimulation difficult or unpleasant to use, but it may be beneficial if you are unable to complete pelvic floor muscle contractions without it. Your specialist may discuss electrical stimulation with you if they think it could be of benefit.

### **Biofeedback**

Biofeedback is a way to monitor how well you are doing the pelvic floor exercises by giving you feedback as you do them. There are several different methods of biofeedback:

- A small probe could be inserted into the vagina in women or the anus in men. This senses when the muscles are squeezed and feeds the information to a computer screen.
- Electrodes (sticky electrical patches) could be attached to the skin of your abdomen or around the anus. These sense when the muscles are squeezed and feed the information to a computer screen.

Some research has found that biofeedback did not benefit women carrying out pelvic floor muscle training for urinary incontinence. However, the feedback may motivate some women.

For men, there is not much evidence to indicate whether biofeedback should be used. It may depend on what you and your specialist prefer, and what is available.

If you wish to try biofeedback, talk to your specialist.

### **Vaginal cones**

Vaginal cones may be used by women to assist with pelvic floor muscle training. Vaginal cones are small weights that are inserted into the vagina. You hold the weights in place using your pelvic floor muscles. When you can, you progress to the next vaginal cone with a higher weight.

Some women find vaginal cones uncomfortable or unpleasant to use, but they may help with stress or mixed urinary incontinence. If you want to try using vaginal cones, speak to your specialist.

### **Bladder training**

If you have been diagnosed with urge incontinence, one of the first treatments you may be offered is bladder training. Bladder training may also be combined with pelvic floor muscle training if you have stress or mixed urinary incontinence.

As for pelvic floor muscle training, your GP may refer you to a specialist for this treatment, such as a continence adviser.

Bladder training involves learning techniques to increase the length of time between feeling the need to urinate and passing urine. The course will usually last for at least six weeks.

If you have any problems with your memory, for example you have dementia, you may be given specific training to prevent leakages. This may involve a carer reminding you to go to the toilet at set times.

### **Medication for stress incontinence**

Duloxetine is a possible medication for stress incontinence. The National Institute for Health and Clinical Excellence (NICE) does not recommend duloxetine as an initial treatment for women with mainly stress incontinence. However, your GP may suggest duloxetine if:

- Conservative treatments have not worked.
- Medication is preferred to surgery or surgery is not possible.

Duloxetine affects serotonin and noradrenaline. These are chemicals that carry messages to and from the brain. It is thought that noradrenaline affects the muscle tone of the urethra. Medication for stress incontinence also aims to increase the muscle tone of the urethra, which should help keep it closed.

You will need to take duloxetine twice a day. You will be assessed after two to four weeks to see if the medicine is beneficial or if it is causing any side effects.

Duloxetine should not be taken or should be used with caution by:

- elderly people
- people with heart disease
- people with uncontrolled [high blood pressure](#) (hypertension)
- people with liver or kidney problems
- women who are pregnant or breastfeeding

Your GP will discuss any other medical conditions you have to determine if you can take duloxetine.

### **Side effects**

There are many possible side effects of duloxetine. For the full list, see the patient information leaflet that comes with your medicine or the duloxetine [medicines information](#). Possible side effects include:

- feeling sick or being sick
- indigestion or tummy pain
- constipation
- diarrhoea
- hot flushes
- headaches
- feeling agitated or shaky
- insomnia or feeling very sleepy

Do not suddenly stop taking duloxetine as this can also cause unpleasant effects. Your GP will reduce your dose gradually if you are going to stop taking duloxetine.

### **Medication for urge incontinence and OAB**

If bladder training is not an effective treatment for your urge incontinence, your GP may prescribe an antimuscarinic. Antimuscarinics may also be prescribed if you have overactive bladder syndrome (OAB), which is the frequent urge to urinate with or without urinary incontinence.

The first antimuscarinic that may be tried is called oxybutynin. There are two different types of oxybutynin tablets, and it is also available as a patch that you stick to your skin. If oxybutynin is not effective or not suitable, other antimuscarinics that may be prescribed include:

- darifenacin
- fesoterodine
- flavoxate
- propiverine
- solifenacin
- tolterodine

- trospium

Your GP will usually start you at a low dose to reduce any possible side effects. The dose can then be increased until the medicine is effective. You will be assessed after six weeks to see how you are getting on with the medication, and again after three to six months to see if you still need it.

Antimuscarinics should not be taken or should be used with caution by:

- people with an untreated eye condition called angle closure [glaucoma](#)
- people with [myasthenia gravis](#), a condition that causes some muscles around your body to become weak
- people with severe [ulcerative colitis](#), a long-term condition that affects the colon

Your GP will discuss any other medical conditions you have to determine which antimuscarinics are suitable for you.

### **Side effects**

There are many possible side effects of antimuscarinics. See the patient information leaflet that comes with your medicine or [medicines information](#) for a full list. Possible side effects include:

- dry mouth
- constipation
- indigestion and heartburn
- flatulence (wind)
- blurred vision
- drowsiness
- dry eyes

### **Hormonal medication**

The only type of hormonal medication that has had a positive effect for incontinence in women is an oestrogen cream applied to the vagina. This is used in women after the menopause who have vaginal atrophy, a condition that causes vaginal dryness, itching or discomfort.

The urgent and frequent need to pass urine, as occurs in OAB, may also be a symptom of vaginal atrophy. Treating vaginal atrophy with oestrogen cream may, therefore, relieve these symptoms. If you have vaginal atrophy, your GP will discuss this treatment with you, but oestrogen cream will not be used to treat urinary incontinence.

### **Medication for nocturia**

Nocturia is the frequent need to get up during the night to urinate. A medication called desmopressin has proved effective at reducing the number of times people need to get up during the night and at improving people's quality of sleep.

Another type of medication taken late in the afternoon, called a loop diuretic, may also prevent you from getting up in the night to pass urine. Diuretic medicine increases the production and flow of urine from your body. By removing excess fluid from your body in the afternoon, it may improve symptoms at night.

Desmopressin is licensed to treat bedwetting at night but is not licensed to treat nocturia. Loop diuretics are also not licensed to treat nocturia.

This means that the manufacturers of the medication have not applied for a license for their medication to be used in treating nocturia. In other words, the medication may not have undergone [clinical trials](#) (a type of research that tests one treatment against another) to see if it is effective and safe in the treatment of nocturia.

However, your GP or specialist may suggest an unlicensed medication if they think the medication is likely to be effective and the benefits of treatment outweigh any associated risk. If your GP is considering prescribing desmopressin or a loop diuretic, they should tell you that it is unlicensed and will discuss the possible risks and benefits with you.

## **Botulinum toxin A for urge incontinence and OAB**

Another possible medication for urge incontinence and OAB is botulinum toxin A. This is injected into the sides of your bladder. After the injections, you may not be able to pass urine normally, so you will need to insert a catheter (thin, flexible tube) to drain the urine from your bladder.

Botulinum toxin A is not currently licensed to treat urge incontinence or OAB, so you should be made aware of any risks before deciding to have the treatment. The long-term effects of this treatment are not yet known, but it may be of benefit when other treatments have not worked.

Some limited evidence suggests that botulinum toxin A may cure incontinence or improve symptoms by 90%. The effects can last for up to 12 months.

## **Surgery**

If other treatments are unsuccessful for your urinary incontinence, surgery may be recommended. Before making your decision, discuss the risks and benefits of surgery with your specialist, as well as any possible alternative treatments. If you plan to have children, this will be an important factor that will affect your decision.

A surgeon who has had specialist training in incontinence surgery should carry out the operation. A number of different surgical procedures can be used.

For women with stress urinary incontinence, NICE recommends a retropubic tape procedure if conservative treatments have not worked. The recommended alternatives to this are open colposuspension and autologous fascial slings. All these procedures are described below.

## **Tape procedures for stress incontinence**

Tape procedures can be used for women with stress incontinence. A piece of tape is inserted through an incision inside the vagina and threaded behind the urethra. The middle part of the tape supports the urethra, and the two ends are threaded through two incisions in either of the following:

- tops of the inner thigh - this is called a transobturator tape procedure (TOT)
- abdomen - this is called a retropubic tape procedure or tension-free vaginal tape procedure (TVT)

Some studies have suggested that TVT may be more effective than TOT in some cases. There is a higher risk of injury to the bladder during TOT, and a higher risk of injury to the urethra during TVT. TOT may also cause thigh pain.

### **Sling procedures for stress incontinence**

Sling procedures involve making an incision in your lower abdomen and inserting a sling around the neck of the bladder to support it. The sling could be made of:

- a synthetic material
- tissue taken from another part of your body (an autologous fascial sling)
- tissue donated from another person (an allograft sling)
- tissue taken from an animal (a xenograft sling), such as cow or pig tissue

Autologous fascial slings are a long-term treatment for stress incontinence and may be the most effective.

Synthetic slings may carry long-term risks of causing difficulty urinating or urge incontinence.

### **Colposuspension for stress incontinence**

Colposuspension is a surgical procedure sometimes used to treat stress incontinence. In this operation, an incision is made in your lower abdomen and your bladder neck is lifted upwards. Stitches through the walls of the bladder neck hold it in place.

A colposuspension can be either:

- an open colposuspension - when surgery is carried out through a large incision
- a laparoscopic colposuspension - when surgery is carried out through a small incision using special, small surgical instruments (keyhole surgery)

Both types of colposuspension offer effective, long-term treatment for stress incontinence, although laparoscopic colposuspension needs to be carried out by an experienced laparoscopic surgeon.

### **Urethral bulking agents for stress incontinence**

A urethral bulking agent is a substance that is injected into the walls of your urethra. This increases the size of the urethral walls and allows the urethra to stay closed with more force.

A number of different bulking agents are available and there is no evidence that one is more beneficial than another.

This is less invasive than other surgical treatments as it does not require any incisions. However, it is less effective than the other options. The effectiveness of the bulking agents will reduce with time and you may need repeated injections.

### **Artificial urinary sphincter for stress incontinence in men**

Your urinary sphincter is a ring of muscle that stays closed to prevent urine flowing from the bladder into your urethra. If another type of surgery has not been successful, it may be suggested that you have an artificial urinary sphincter fitted to treat your incontinence.

However, an artificial urinary sphincter can cause a number of side effects, such as the pump that controls the sphincter failing or not being able to urinate. The device commonly needs to be removed or fixed.

This treatment is rarely used in women.

### **Posterior tibial nerve stimulation for OAB**

Your posterior tibial nerve runs down your leg and is found near your ankle. It contains some nerve fibres that start from the same place as nerves that run to your bladder and pelvic floor. It is thought that stimulating the tibial nerve will affect these other nerves and help control bladder symptoms, such as the urge to pass urine.

During the procedure, a very thin needle is inserted through the skin of your ankle and an electrode is attached to your foot. A mild electric current is sent through the needle and the electrode, causing a tingling feeling and causing your foot to move. You may need 12 sessions of stimulation, each lasting around half an hour, one week apart.

In a number of different studies, at least half of people reported improvements in their symptoms, with some people being free from symptoms immediately after the 12 weeks of treatment. However, the results do not last long and you may need more stimulation sessions.

Posterior tibial nerve stimulation can also cause side effects, such as foot or toe pain, minor bleeding and headaches. Some people may also find the stimulation too uncomfortable to continue with. There is currently little quality data to support this technique.

### **Sacral nerve stimulation for urge incontinence**

The sacral nerves are located at the bottom of your back. They carry signals from your brain to some of the muscles that are used when you go to the toilet, such as the detrusor muscle that surrounds the bladder.

If your urge incontinence is the result of your detrusor muscles contracting too often (detrusor overactivity), sacral nerve stimulation, also known as sacral neuromodulation, may be recommended.

During the operation, a device is inserted near one of your sacral nerves, for example in one of your buttocks. An electrical current is sent to the device that stimulates the sacral nerve. This should improve the way signals are sent between your brain and your detrusor muscles, and so reduce your urges to urinate.

Sacral nerve stimulation can be painful and uncomfortable, but two-thirds of women report a substantial improvement in their symptoms or the end of their incontinence completely.

### **Augmentation cystoplasty for urge incontinence**

In a procedure known as augmentation cystoplasty, your bladder is made larger by adding a piece of tissue from your intestine (part of the digestive system) into the bladder wall.

After the procedure, you may not be able to pass urine normally and you may need to use a catheter. A catheter is a thin tube that is passed through your bladder and into your urethra. Because of this, augmentation cystoplasty will only be considered if you are willing to use a catheter.

Urinary tract infections (UTIs) are common among people who use a catheter. See the Health A-Z topic about [Urinary catheterisation](#) for more information.

About half of women treated with augmentation cystoplasty said their symptoms improved.

### **Urinary diversion for urge incontinence**

Urinary diversion is a procedure where the tubes that lead from your kidneys to your bladder (ureters) are redirected to the outside of your body. The urine is collected directly without it flowing into your bladder. Urinary diversion should only be carried out if other treatments have been unsuccessful or are not suitable.

Urinary diversion can cause a number of complications, such as a bladder infection, and it is common to need further surgery to correct any problems that occur.

### **Clean intermittent catheterisation for overflow incontinence**

Overflow incontinence, also called chronic urinary retention, occurs when the bladder cannot completely empty when you pass urine. This causes the bladder to swell above its usual size.

Clean intermittent catheterisation (CIC) is a technique that can be used to empty the bladder at regular intervals and so reduce overflow incontinence. A continence adviser will teach you how to place a catheter through your urethra and into the bladder. Your urine will flow out of your bladder, through the catheter and into the toilet.

Using a catheter can feel a bit painful or uncomfortable at first, but any discomfort should subside over time.

How often CIC will need to be carried out will depend on your individual circumstances. For example, you may only need CIC once a day, or you may need to use the technique several times a day.

Regular use of a catheter increases the risk of developing a urinary tract infection (UTI). See the Health A-Z topic about [UTI](#) for more information.

### **Indwelling catheterisation for overflow incontinence**

If using a catheter every now and then is not enough to treat your overflow incontinence, you can have an indwelling catheter fitted instead. This is a catheter inserted in the same way as for CIC, but left in place. A bag is attached to the end of the catheter to collect the urine.

### **Surgery for LUTS in men**

Lower urinary tract symptoms (LUTS), such as problems passing urine, may be treated with surgery if it is thought that your symptoms are caused by an enlarged prostate gland. This is a small gland located between the penis and bladder that surrounds the urethra. See the Health A-Z topic about [Prostate enlargement](#) for more information about this condition.

One possible type of surgery is a transurethral resection of the prostate (TURP). This involves cutting away a section of the prostate gland. See the Health A-Z topic about [TURP](#) for more information.

Another possible type of surgery is holmium laser enucleation of the prostate (HoLEP). This is a relatively new procedure and may only be available in some specialist centres. It involves using a laser to remove some of the prostate tissue.

Source: <http://www.nhs.uk/Conditions/Incontinence-urinary/Pages/Treatment.aspx>