

# Over-active bladder

## Advice for patients who “just can’t hold on”

### Normal bladder function

Your bladder normally stores urine produced by your kidneys. The kidneys produce urine all the time but the amount of urine you produce depends on how much you drink, eat and sweat.

The bladder should act like a balloon which fills gradually. The outlet for the urine (the urethra) is normally kept closed. This is helped by the pelvic floor muscles beneath the bladder that sweep around the urethra. As the bladder fills, the need to pass urine increases. When the bladder functions normally it is possible to wait for a suitable and convenient time to empty the bladder.

Your bladder should normally hold about 400 - 600mls of urine. Visits to the toilet could be around 7 - 8 times during the day and possibly once during the night. The amount of fluid you drink will affect how often you need to pass urine. For most people the average fluid intake should be approximately 2 litres a day.

The bladder consists of a muscle called the ‘detrusor’ muscle. When this contracts (squeezes), the muscles and sphincters of the urethra relax and allow the bladder to empty. Normally it should be possible for you to ‘hold on’ if it’s not convenient or appropriate to pass urine. Complex nerve messages are sent between the brain, sacral nerves, bladder and pelvic floor muscles. This influences the sensation of your bladder filling and the use of the right muscles at the right time.

### What is an overactive bladder?

If your bladder contracts without any warning it can give you an urgent need to pass urine. This gives you little or no time to get to the toilet. This is called **urinary urgency**. People who have this problem often have to pass urine more frequently and in small volumes. This is often because the bladder feels fuller than it actually is. The bladder contains pressure receptors and they eventually trigger the bladder to empty at smaller and smaller volumes unless the bladder is calmed down and allowed to fill fully. It can also cause you to get up in the night to pass urine more than once.

If the contractions are strong and the pelvic floor muscles are weak an overactive bladder can cause leakage of urine. This is called **urgency incontinence**.

The diagnosis of an overactive bladder is usually made from the patient’s history however a

simple urine test is usually carried out to exclude infection by the GP or at the hospital. It may be necessary to do special bladder function tests such as uro-dynamics (see separate leaflet). If the results of the urodynamic investigation show that you have uncontrolled contractions of the bladder muscle then the diagnosis would be called **detrusor over activity**. You may also require an ultrasound of your urinary tract or a cystoscopy, which is a camera test to look inside the bladder.

## What causes an overactive bladder?

For most people the cause of an overactive bladder is unknown and it can be a problem for many people of all ages. It may start:

- After bladder surgery or radiotherapy treatment
- With neurological problems involving the brain or spinal nerves
- With stress and anxiety
- With a person who drinks too much caffeinated and carbonated fluids
- If the person has other bladder problems such as stones or tumour

As much as 20% of women over 40 have overactive bladder symptoms rising to 33% of women over 60 years.

## Treatment

The treatment of an overactive bladder can be successful in women, but it requires a lot of commitment on the part of the woman. There are several behavioral techniques a woman can learn to improve bladder control and these are to be tried first before any medical treatment. You may be referred to the continence advisors, uro-gynaecology nurse specialist and/or pelvic health physiotherapists for help with learning these techniques.

This is a brief summary:

- **Changing drinking habits:** Do not restrict fluids; aim to drink between 1.5 to 2 litres of fluids a day. This will keep urine dilute and less irritating to the bladder and will help keep up the volume your bladder can hold. There are numerous drinks that can irritate the bladder, some you should really try to avoid and some you may wish to see if they affect you.

Bladder irritants	Recommended drinks
Coffee with caffeine	Water
Tea including Green tea	Herbal and fruit teas (with no caffeine)
Cola drinks	Caffeine free tea and coffee
Carbonated (fizzy) drinks	Milk
Alcohol	Diluted fruit juice
Citrus and blackcurrant fruit juices	
Hot chocolate	
Drinks with aspartame sweetener (E951)	

- Some teas and coffees are decaffeinated by slightly differing processes, it may be worth checking into these to make sure you are buying a better-quality product and then you can enjoy a good flavour. Some people complain of a headache when starting caffeine free drinks, please remember it is not the 'decaf' coffee giving you the headache it is your withdrawal from caffeine in the bloodstream. With a little patience it will go away. You could also consider drinking caffeine free tea and coffee.
- **Bladder re-training:** The purpose of bladder retraining is to help you regain control of your overactive bladder by suppressing its contractions instead of rushing to the toilet as soon as you get the urge to pass urine and increase the capacity of the bladder. It is important you try to hold on when you get the urge to pass urine. If you have difficulty doing this, try to distract yourself by doing something else, or sitting straight on a hard seat, sitting on your hands or rolled up towel, crossing your legs and contracting your pelvic floor muscles. The techniques may help you gradually increase the capacity of your bladder and help it become less sensitive when there is little urine in it to stretch it. Increasing the amount of urine your bladder holds is done in small stages. For example, if you find you are going to the toilet every half hour, then try extending the time you go by 10 minutes for a week, then 15 minutes for the next week and so on. Ideally you should be able to hold on for 3 - 4 hours between toilet visits. Your continence advisor / urogynaecology nurse specialist / women's health physiotherapist will be able to help you with a bladder retraining plan.



## Medicines that help

There are several medicines used to treat an overactive bladder. Most are from a family of drugs called anticholinergics, they affect the nerve and muscle function of the detrusor (bladder) muscle. They cause the detrusor muscles to relax and thus reduce the frequency and intensity of contractions of the bladder. They can also increase bladder capacity, this allows the bladder to be able to store more urine before emptying therefore extending the time between toilet visits.

You may be prescribed in tablet form: Tolterodine, Trospium, Oxybutinin, Solifenacin, Darifenacin or Fesoterodine. Oxybutinin can come in a patch form (Kentera) which some women may like to try. Before taking any of these medicines please make sure your doctor or specialist nurse know of any medical conditions you have especially glaucoma.

Side effects are quite common with these medicines, but are often minor and tolerable. Some side effects such as dry mouth and constipation may indicate that the medicine is starting to have an effect. Some side effects will often wear off as your body adjusts to the medicine. Speak to your doctor or pharmacist if any of the following side effects continue or become troublesome. We can often change a tablet for another to help manage side effects or improve effectiveness.

Common side effects	What can I do
Dry mouth	Try sucking sweets, ice cubes and having sips of water or juice.
Constipation	Eat a balanced fibre, fruit and vegetable rich diet and drink plenty of water.
Feeling nauseous, indigestion, tummy pain	This often wears off. Eat little and often.
Drowsiness, blurred vision, dizziness	Make sure your reactions are normal before driving, operating machinery or doing potentially dangerous jobs. Avoid alcohol.
Headache	Ask a pharmacist to recommend a suitable pain killer that does not contain caffeine. If it persists speak to your Doctor.  Take steps to not become overheated in hot weather.
Reduced ability to sweat	Ask a pharmacist to recommend products to help.
Dry eyes	

Other less likely side effects include sensitivity to sunlight, dry skin, fast or fluttering heart beats, skin rash, facial flushing, diarrhoea, restlessness and feeling disorientated. If any of these are troublesome then speak to your doctor or if severe then you should stop taking the medicine and tell your doctor afterwards. If you have difficulty passing urine then this should also be reported to your doctor. If there are signs of an allergic reaction to the medicine, ie swelling of the mouth or face or any difficulty swallowing or breathing or severe rash then contact the emergency telephone numbers immediately and/or go to the nearest A&E Department.

### Mirabegron (Betmiga)

Mirabegron is a newer form of medicine for overactive bladder symptoms. It can be used if the other medicines are not effective enough or if you developed troublesome side effects. It can be used if you are not able to take anticholinergics. When this tablet is taken the active ingredient, mirabegron, is released into your body. It is a bladder muscle relaxant (called a beta 3-adrenoceptor agonist), which reduces the activity of an overactive bladder and treats the related symptoms. The medicine is a once a day tablet that should be swallowed whole with liquid, before or after food. You should see improvement in your symptoms after a few

weeks. If you are on medication for high blood pressure your GP practice should regularly monitor your blood pressure. The most serious side effect of this medicine is an irregular heartbeat. It is an uncommon side effect but if this occurs you should stop taking the tablets immediately and seek urgent medical advice.

All 'bladder calming' medicines can take up to 4 weeks to show any significant effect. The maximum efficacy of the medicines may take 8 weeks to establish. As your bladder may need some time to adapt, do not stop taking the medication if you do not see an immediate effect.

If you are concerned regarding the side effects or do not feel that the medicine is working after 4 weeks, you should ring your doctor for advice.

### **Medicines that may make the problem worse**

If you take diuretics (water tablets) they can make you pass more urine, so it may be worth adjusting the time you take them. For example, they are generally not taken at night as you will pass urine a lot during the night. As you rest at night with your legs elevated your kidneys are able to pass the fluid that accumulated during the day, therefore sometimes your doctor can recommend you take your water tablet at tea-time to encourage your kidneys to produce urine before bedtime. You may not want to take them in the morning if that is the time of day you want to go out. Discuss this with your GP before you change the pattern of taking your diuretics.

### **Surgical treatments**

#### **Bladder botox injections**

There is another form of therapy using a bacterial toxin, Botulinum toxin A (Botox) which can help an overactive bladder. It involves the injection of botox into the bladder wall to prevent the over-activity of the bladder muscle. It is done with the patient under anaesthesia and assisted by a camera that goes into your bladder (cystoscope). It is successful in 80% of patients however its beneficial effects wear off after 6 - 12 months. Repeated injections are required to maintain the effects.

You will be required to learn how to use an intermittent urethral catheter before this procedure as there is a very slight chance your bladder cannot empty properly for a short time afterwards. The continence advisors / uro-gynaecology nurse specialist will be able to show you how if you agree to learn.

### **Useful information can be obtained from**

The Bladder and Bowel Foundation - [www.bladder&bowelfoundation.org](http://www.bladder&bowelfoundation.org)