

## OVERACTIVE BLADDER

### Introduction

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The bladder is a hollow muscular organ located in the lower abdomen and has the capacity to hold up to half a litre of urine. When it is full, signals are sent to the brain and you will feel the desire to urinate. The bladder should be able to store the urine without leakage until it is convenient to use the toilet.

Overactive bladder (OAB) occurs when there is abnormal activation of nerve pathways causing a reflex response to pass urine. OAB affects up to 15% of women, men and children and is commonly known as 'having a weak bladder'. The symptoms are chronic and interfere significantly with daily activities. OAB sufferers are often too embarrassed to seek help and may put up with it for many years, assuming it is a 'normal' part of growing up or ageing.

### Symptoms

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You may have OAB if you experience the following symptoms:

- Urgency (difficulty holding on)
- Incontinence (leakage before getting to the toilet) or bed-wetting
- Frequency (urinating every 2 hours or less)
- Nocturia (waking up more than once at night to urinate)
- Dull pain in the lower pelvic area

Some common ways of dealing with OAB symptoms include:

- Using incontinence products such as liners and pads regularly
- Limiting your fluid intake to avoid going to the toilet frequently
- Restricting use of public transport for fear of not being able to access a toilet
- Avoiding social activities due to leakage or constant need to go to the toilet
- Not engaging in intimate relationships
- Mapping where toilets are when you are out so you can get to one quickly
- Changing underwear or clothing regularly due to dampness or odour

### Causes

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Bladder structure and function has been the focus of medical research for many decades. Scientists now know that there are abnormalities in the neuroreceptors, neurotransmitters, feedback reflexes and signal transmission between the brain and the bladder with OAB. This has allowed researchers to develop effective treatment modalities. However, the actual cause or trigger for the condition is unknown.

Other potentially serious conditions may present with similar symptoms and must be excluded before a diagnosis of OAB is made. These include:

- Bladder infections (cystitis), stones, cancer or prolapse
- Obstruction due to prostate enlargement or stricture
- Previous radiation exposure or therapy in the lower abdomen
- Neurological conditions such as Parkinson's disease, multiple sclerosis, spinal cord injury, spina bifida, stroke, brain or spinal tumours

## Diagnosis

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The assessment of OAB symptoms includes:

- History, bladder diary and physical examination
- Urine tests and ultrasound scan
- Uroflowmetry - assessment of flow rate when urinating
- MRI brain and spine - to look for neurological diseases
- Cystoscopy - minimally invasive procedure to visualise the bladder lining
- Urodynamic studies - measure bladder pressures and activity

## Treatment

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There are many simple measures that can be used to treat OAB. These may involve a pelvic floor physiotherapist and continence nurse.

- Lifestyle changes
  - Limit caffeine, alcohol and carbonated drinks
  - Add fibre to your diet to improve digestion
  - Avoid acidic or spicy foods such as citrus fruit and chillies
  - Weight loss
- Delayed or timed voiding
- Bladder retraining and biofeedback
- Pelvic floor muscle exercises

Several medications can be prescribed to suppress the symptoms. Dr Ooi will trial different ones to see which one works best:

- Oxybutynin (2-4 times daily, PBS \$8 for 100)
- Oxybutynin patches (changed twice a week, PBS \$30 for 8)
- Solifenacin (once daily, private \$30 for 30)
- Mirabegron (once daily, private \$60 for 30)

If you have persistent bothersome symptoms, Dr Ooi may organise further tests and discuss the following options:

- Transcutaneous electrical nerve stimulation (TENS)
- Posterior tibial nerve stimulation (PTNS)
- Sacral neuromodulation (SNM) - insertion of a “pacemaker” to modify electrical signals to the nerves that control bladder function
- Botox® injections - to relax bladder and block muscle spasms

In rare circumstances, a handful of patients do not respond to any of treatments listed above. These patients are often desperate and may request for permanent catheterisation, bladder augmentation or diversion of urine to a stoma or bag.

### Video resources

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Living with OAB <https://www.youtube.com/watch?v=sUU3WYkGplU&t=12s>

Taking control of OAB <https://www.youtube.com/watch?v=60db5CtANHY&t=211s>

PTNS (2:47 mins) <https://www.youtube.com/watch?v=-YpwjTcehVA>

Medtronic® SNM (5:13 mins) <https://www.youtube.com/watch?v=Evega3-rZdE>

Botox® (1:51 mins) <https://www.youtube.com/watch?v=z2Ce086x0j0>