Urinary Incontinence

What Is Urinary Incontinence?

Urinary incontinence is defined as any involuntary loss or leakage of urine. It is an extremely common problem which can significantly reduce quality of life. Studies estimate that up to 40% of women and 10% of men in the UK suffer with urinary incontinence to some extent, however only a small proportion seek medical treatment. This can be due to embarrassment or a perception that it is normal or has limited treatment potential.

Although it can be embarrassing to talk about, it is important to discuss urinary incontinence with your doctor as treatment can improve your general quality of life, mental wellbeing and increase your ability to participate in physical and social activities, in addition urinary incontinence can sometimes be a symptom of an underlying health condition which may need further investigation.

What Causes Urinary Incontinence?

Urinary incontinence is classified into different types and the cause of incontinence will depend on the type.

Stress urinary incontinence (SUI)

is leakage occurring with exertion or effort such as exercise, coughing, laughing or sneezing. It is caused by weakness of the sphincter mechanism or the supporting structures of the pelvic floor which normally prevent urine from leaking out when pressure on the bladder increases. In women this is commonly due to pregnancy and childbirth, in men the most common cause is surgery on the prostate. In both sexes obesity and ageing can contribute to worsening incontinence. More rarely stress incontinence can occur in certain types of neurological disease or injury.

Urge urinary incontinence UII

Urgency urinary incontinence is leakage accompanied or preceded by a strong urge to pass urine which is difficult to hold on to. It is often due to involuntary contractions of the bladder which would normally only occur when intentionally emptying the bladder. This can be caused by conditions which irritate the bladder such as infections, bladder stones, bladder outflow obstruction, or neurological disease including Multiple Sclerosis, Parkinson’s, spinal cord injury among others. In many people however, there is no specific explanation like this and in these cases the diagnosis of Overactive Bladder Syndrome (OAB) is used

Mixed incontinence

Mixed incontinence refers to leakage with symptoms of both stress incontinence and urgency incontinence. This is common and treatment for both components may be necessary. Usually the most bothersome component will be treated first.

Overflow incontinence

occurs when obstruction to urine flow or bladder muscle weakness leads to incomplete bladder emptying (chronic retention). Over time the bladder can become very distended due to the excess urine left behind and eventually the pressure inside can cause urine to leak out, often during sleep.

Continuous incontinence

describes a constant ongoing urinary leak. It is rare and is typically caused by a fistula (hole) between the urinary tract and the vagina or skin. In the UK, fistulae most commonly occur due to injuries during surgery. Occasionally continuous incontinence can be due to very severe forms of stress incontinence.

How Is Urinary Incontinence Investigated?

As well as a full medical and surgical history, your consultant will ask questions to determine what type of incontinence you have including when and during what activities the leakage occurs, whether you have any other associated symptoms and what treatments you have tried or been offered before.

You will be asked to complete some questionnaires which can help assess the severity of your incontinence and its impact on your quality of life. In addition, you will be asked to complete a bladder diary detailing the time and amount of urine you pass, the fluid you drink and any incontinence episodes.

At your first appointment your consultant will perform a physical examination of the abdomen and pelvis including the vagina and pelvic floor, urine testing and an ultrasound scan of your bladder to assess bladder emptying.

Depending on the initial findings or response to initial treatment further investigations may be arranged such as:

Urodynamic studies

During this test fine tubes are passed into the bladder and a second small tube is passed into the rectum or vagina in order to measure pressure.

The test involves filling the bladder with fluid and measuring the pressure generated within the bladder during filling and emptying. It is important that we try to reproduce your symptoms ie leakage during the test so we can see what is happening with the pressure inside the bladder when your leakage occurs.

Urodynamic studies are often carried out before contemplating invasive treatment to gain as much information about your bladder's behaviour as possible.

Pad weight tests

Pad weight tests are a way of assessing how much urine you are leaking. You will be asked to keep a record of the weight in grams of the wet pads you change during a 24 hour period.

Flexible cystoscopy

A small flexible camera is passed along the urethra into the bladder to allow direct inspection of the inside of the lining of the bladder and urethra for any abnormalities.

How Is Urinary Incontinence Treated?

Stress incontinence, urgency incontinence and mixed incontinence account for the vast majority of cases and are treated in a stepwise fashion starting with lifestyle changes and conservative therapies progressing

through to drug therapies and then invasive procedures and surgery only moving to the next step if symptoms remain bothersome. Overflow and continuous incontinence by comparison are rare and require the underlying problem specifically addressed eg treating urinary retention with catheterization or surgery to close a fistula.

Lifestyle Changes

Fluid modification

Your consultant may recommend altering the type, quantity and timing of the fluids you drink. For example, reduction of caffeine intake can help reduce episodes or urgency.

Weight loss

Being overweight can contribute to urinary incontinence and losing weight can improve incontinence (in some cases so dramatically that no other treatment is required). In addition, weight loss will increase the likelihood of success of any surgery for incontinence and reduce the risks from that surgery as well as improving your general health.

Conservative Therapies

Pelvic floor muscle training

Strengthening the muscles of the pelvic floor through exercise can improve symptoms of stress incontinence. The training should be as intense as possible and is best supervised by a specialist physiotherapist or continence nurse for a period of at least 3 months.

Bladder training

Bladder training Is a way of teaching the bladder to hold more urine and improve symptoms of urgency. Is best supervised or supported by a specialist physiotherapist or continence nurse. Bladder training has been shown to be just as effective as drug treatment for symptoms of overactive bladder.

Drug therapies

Drug treatment is indicated if conservative therapies and lifestyle modifications do not improve symptoms of urgency incontinence and overactive bladder. Several different medications are available. Drug treatment with Duloxetine is sometimes used for stress incontinence but it is not a preferred option.

Invasive Therapies

Stress incontinence

Surgery is the mainstay of treatment for stress incontinence when conservative measures fail. There are a range of procedures available for both women and men (click for links).

Urgency incontinence

If conservative and medical treatment do not improve symptoms of urgency incontinence, options include botulinum toxin (Botox) injections to the bladder or sacral neuromodulation.

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Containment And Incontinence Products

Not everyone will want or be suitable for invasive treatment for their incontinence and containment with pads or sheath type devices for men represent an important management strategy.

There are also several commercially available external compression devices available for male stress incontinence (eg penile clamp or Pacey cuff) and intravaginal support devices for female stress incontinence eg Diveen which are not routinely recommended but may be useful for some patients