

# Urinary incontinence and cystic fibrosis

## What is urinary incontinence?

When people have problems controlling leakage of urine (wee) from their bladder, this is called urinary incontinence (UI). There are two types of urinary incontinence:

- **Urge incontinence**

Urge incontinence happens when the muscle of the bladder is oversensitive and there is not enough warning of the need to empty the bladder. Often if you experience urge incontinence you will feel the need to have to wee frequently, and you may wake up several times a night to do this. Certain drugs (e.g. caffeine) may make the bladder muscle 'twitchy' and cause urge incontinence.

- **Stress incontinence**

Stress incontinence is the leaking of urine (wee) during activities that increase the pressure in the abdomen (tummy) and push on the bladder. This happens during actions such as coughing and sneezing, and this is the type that is most commonly reported by people with chronic cough, such as in cystic fibrosis (CF).

A combination of the two causes can also occur and is known as mixed incontinence.

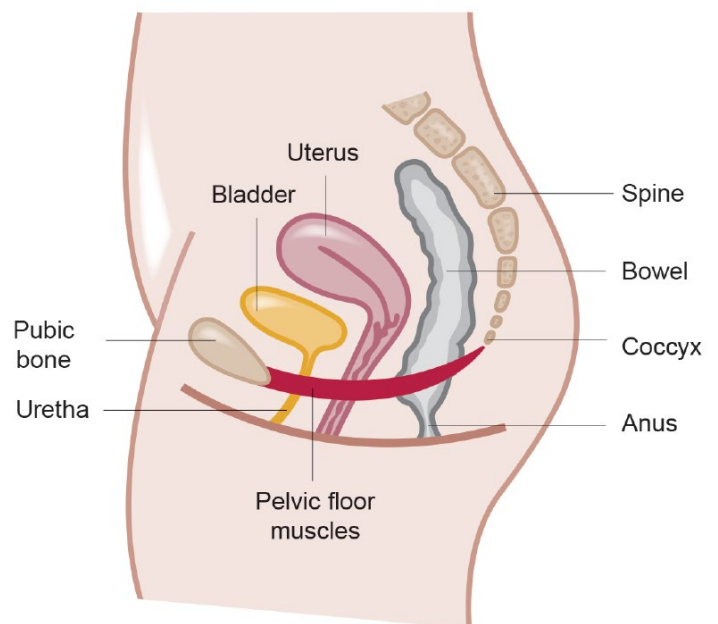
## About your bladder and pelvic floor muscles

The bladder is a muscular sac in the pelvis, just above and behind the pubic bone. When it is empty, the bladder is about the size and shape of a pear.

Urine (wee) is made in the kidneys and travels down two tubes called ureters to the bladder. The bladder stores wee, allowing urination to be infrequent and controlled.

The pelvic floor is made of ligaments and muscles that form a sling which supports the floor of the pelvis.

The opening to the bladder (urethra) passes through this sling. The muscles of the pelvic floor must work to keep the urethra closed when you don't want to pass wee and relax when you do.



- **What happens to your pelvic floor during coughing?**

During coughing, the abdominal (tummy) muscles contract strongly. This increases the pressure on the bladder and pelvic floor. The pelvic floor muscles need to contract with every cough to prevent leakage. This process usually happens automatically.

- **Why are girls with CF at risk?**

The reason why people with CF are at increased risk of leakage is not fully understood. Studies show that the muscles are usually strong enough, but sometimes they can't keep up with the intense, prolonged coughing that people with CF can experience.

## **Preventing urinary incontinence**

From the age of 12 or 13, we will be asking you about symptoms of urinary leakage during your annual review. In our survey of all adolescent girls attending clinic, 33% had symptoms but none of the girls had discussed the problem with their doctor, and most had not discussed it with their parents.

If you have symptoms, we can offer you advice and treatment. For most girls, learning pelvic floor exercises ('the knack') is enough to help symptoms resolve.

- **'The knack'**

Pelvic floor exercises are the best way to prevent and treat UI caused by the stress of coughing. 'The knack' is a technique where you tighten and lift the pelvic floor muscles before coughing, huffing, sneezing etc. to protect against leakage. It is important that you are performing 'the knack' correctly and lifting the muscles, not pushing downwards. Many people find it difficult to learn how to contract their pelvic muscles correctly. In the study at our clinic, we taught 10 adolescent girls how to do pelvic floor exercises. Only 60% were able to demonstrate the correct technique.

Physiotherapists now use Real time Transabdominal Ultrasound (RTUS) to help teach pelvic floor exercises. The ultrasound is applied over your tummy. You will have to lift your shirt slightly, but you can keep your pants on. With RTUS, you can see your bladder moving and in this way you are able to see that your pelvic floor is moving in the right direction.

In our study, after two practice sessions using RTUS, girls were able to correctly do 'the knack'. This took about 20 minutes to learn. No one reported embarrassment, and all felt it would be useful to incorporate into CF clinic visits around the time they started high school. It doesn't add to your usual treatment routine as you can do the exercises whilst coughing with airway clearance (physiotherapy).

It is suggested that all people with CF should practice 'the knack', whether you leak or not. You will be taught how to do 'the knack' using RTUS by your CF physiotherapist during a clinic visit sometime in high school.

- **Exercise**

Exercise is important to maintain fitness and to help keep your chest clear of secretions. High impact exercise such as jumping, skipping and running can cause leakage. Extra care should be taken with these activities during and after puberty the risk of UI may increase at this time. For those who leak and wish to exercise on a trampoline, jogging will cause less strain on the pelvic floor muscles than jumping with both feet together. Jogging instead of jumping with a skipping rope is preferable for the same reason.

Talk to your CF physio if you intend doing weight training and abdominal toning (sit ups) programmes to ensure you are following a balanced exercise programme.

- **Practicing good coughing technique**

It is essential that you can do airway clearance (physiotherapy) effectively without worrying about UI. Controlled coughing and modifying your airway clearance technique may help to prevent or minimise leakage. Research shows that the muscles involved in coughing and control of the pelvic floor work best with the spine (back) straight and in an upright position, so good posture during airway clearance will help. We know many young people like to sit cross legged during airway clearance but this is not an ideal position for your pelvic floor to work in. Ask your CF physiotherapist if you would like advice about posture, your pelvic floor and 'the knack'.

## What help is available?

Many people find it embarrassing to talk about UI. If you notice a problem, it is important to discuss it with a member of the CF team. If the problem remains untreated it may get worse. Girls who have significant symptoms can be referred to a Perth Children's Hospital physiotherapist who specialises in treating incontinence in children and young people.

## In summary

- Discuss any problems with bladder leakage with a member of your CF team (the problem is more common than you think, and help is available!).
- Good posture, pelvic floor exercises and practicing 'the knack' may help to control the symptoms of UI.
- If symptoms persist despite using these techniques, continence specialists are available to provide advice, assessment and treatment of leakage and you can be referred to these teams by your CF physio.

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