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Stress Incontinence

Stress incontinence is the most common form of incontinence. It means you leak urine when you increase the pressure on the bladder, as in coughing, sneezing or exercise. It happens when the pelvic floor muscles that support the bladder are weakened. Childbirth is a common reason for a weak pelvic floor. The main treatment for stress incontinence is pelvic floor exercises. Surgery to tighten or support the bladder outlet can also help. Medication may be used in addition to exercises if you do not want, or are not suitable for, surgery.

Understanding urine and the bladder

The kidneys make urine continuously. A trickle of urine is constantly passing to the bladder down the ureters (the tubes from the kidneys to the bladder). You make different amounts of urine depending on how much you drink, eat and sweat.

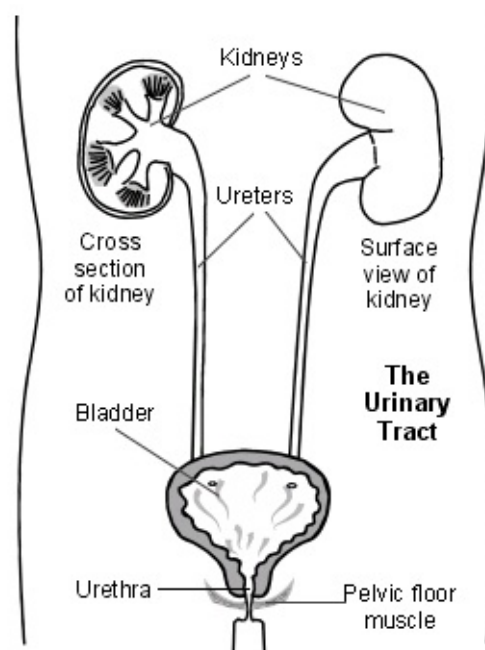
The bladder is made of muscle and stores the urine. It expands like a balloon as it fills with urine. The outlet for urine (the urethra) is normally kept closed. This is helped by the muscles beneath the bladder that surround and support the urethra (the pelvic floor muscles).

When a certain volume of urine is in the bladder, you become aware that the bladder is getting full. When you go to the toilet to pass urine, the bladder muscle squeezes (contracts) and the urethra and pelvic floor muscles relax to allow urine to flow out.

Complex nerve messages are sent between the brain, the bladder and the pelvic floor muscles. These tell you how full your bladder is and tell the correct muscles to contract or relax at the right time.

What is stress incontinence?

Stress incontinence occurs when urine leaks because there is a sudden extra pressure within the tummy (abdomen) and on the bladder. This pressure (or stress) is caused by things like coughing, laughing, sneezing or exercising (such as running or jumping). Weakened pelvic floor muscles cannot support the bladder and urine outlet (urethra) as well as they should. The pressure is too much for the bladder outlet to withstand and so urine leaks out. Small amounts of urine may leak but sometimes it can be quite a lot and can cause embarrassment. The diagram below shows how the pelvic floor muscles support the bladder and nearby structures.



How common is stress incontinence?

Stress incontinence is the most common form of urinary incontinence. It is estimated that about three million women in the UK are regularly incontinent. Overall this is about 4 in 100 adults, and well over half of these are due to stress incontinence. Stress incontinence becomes more common in older women. As many as 1 in 5 women over the age of 40 have some degree of stress incontinence.

It is likely that the true number of people affected is much higher. Many people do not tell their doctor about their incontinence, due to embarrassment. Some people wrongly think that incontinence is a normal part of ageing or that it cannot be treated. This is unfortunate, as many cases can be successfully treated or significantly improved.

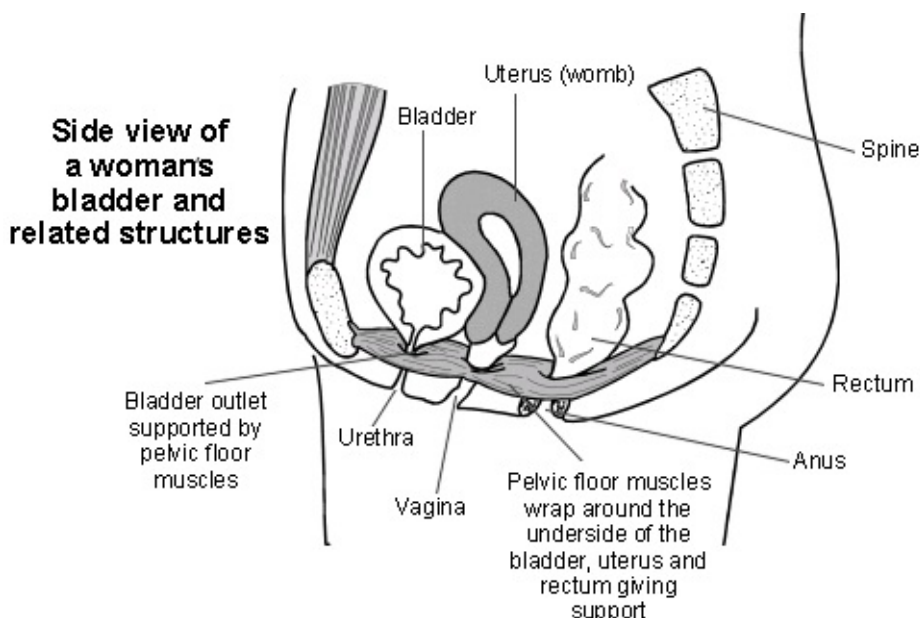
Other types of incontinence

The second most common type of incontinence is urge incontinence. Briefly, urge incontinence occurs when you get an urgent desire to pass urine from an **overactive bladder**. Urine may leak before you have time to get to the toilet. Treatment is different to treatment for stress incontinence. See separate leaflet called **Urge Incontinence** for more details. Some people have both stress incontinence and urge incontinence. This is known as mixed incontinence.

There are also other, less common types of incontinence.

Note: you should always see your doctor if you develop incontinence. Each type has different treatments. Your doctor will assess you to determine the type of incontinence and advise on possible treatment options. See separate leaflet called **Urinary Incontinence** for a general overview and to understand what is likely to happen during the assessment by your doctor.

What causes stress incontinence?



Most cases of stress incontinence are due to weakened pelvic floor muscles. Pelvic floor muscles are often weakened by childbirth. The pelvic floor muscles are a group of muscles that wrap around the underside of the bladder and back passage (rectum). Stress incontinence is common in women who have had children, particularly if they have had several vaginal deliveries. It is also more common with increasing age, as the muscles become weaker, particularly after the menopause. Stress incontinence is also more common in women who are obese. Stress incontinence *can* occur in men who have had some treatments for prostate cancer. This includes surgical removal of the prostate (prostatectomy), and radiotherapy.

What are the treatment options for stress incontinence?

First-line treatment involves strengthening the pelvic floor muscles with pelvic floor exercises. About 6 in 10 cases of stress incontinence can be cured or much improved with this treatment. If you are overweight and incontinent then you should first try to lose weight in conjunction with any other treatments. Surgery may be offered if the problem continues and is a significant problem. Medication may be used in addition to exercises if you do not want, or are not suitable for, surgery.

Strengthening the pelvic floor muscles - pelvic floor exercises

It is important that you exercise the correct muscles. Your doctor may refer you to a continence advisor or physiotherapist for advice on how to do pelvic floor exercises correctly. Below are instructions you can follow yourself at home.

Learning to exercise the correct muscles:

- Sit in a chair with your knees slightly apart. Imagine you are trying to stop wind escaping from your back passage (anus). You will have to squeeze the muscle just above the entrance to the anus. You should feel some movement in the muscle. Don't move your buttocks or legs.
- Now imagine you are passing urine and are trying to stop the stream. You will find yourself using slightly different parts of the pelvic floor muscles to the first exercise (ones nearer the front). These are the ones to strengthen. If you are not sure that you are exercising the correct muscles, put a couple of fingers into your vagina. You should feel a gentle squeeze when doing the exercises.

Doing the exercises:

- You need to do the exercises every day.
- Sit, stand or lie with your knees slightly apart. Slowly tighten your pelvic floor muscles under the bladder as hard as you can. Hold to the count of five, then relax. Repeat at least five times. These are called slow pull-ups.
- Then do the same exercise quickly for a second or two. Repeat at least five times. These are called fast pull-ups.
- Keep repeating the five slow pull-ups and the five fast pull-ups for five minutes.
- Aim to do the above exercises for about five minutes at least three times a day and preferably 6-10 times a day.
- Ideally, do each five-minute bout of exercise in a different position each time. That is, sometimes when sitting, sometimes when standing and sometimes when lying down.
- As the muscles become stronger, increase the length of time you hold each slow pull-up. You are doing well if you can hold each slow pull-up for a count of 10 (about 10 seconds).
- Do not squeeze other muscles at the same time as you squeeze your pelvic floor muscles. For example, do not use any muscles in your back, thighs, buttocks, or stomach.
- In addition to the specific times you set aside to do pelvic floor exercises, try to get into the habit of doing them whilst going about everyday life. Pelvic floor exercises could be done when answering the phone, washing up, travelling, etc.
- After several weeks the muscles will start to feel stronger. You may find you can squeeze the pelvic floor muscles for much longer without the muscles feeling tired.

It takes time, effort and practice to become good at these exercises. It is advised that you do these exercises for at least three months to start with. You should start to see the benefit after a few weeks. However, it often takes 8-20 weeks for most improvement to occur. After this time you may be cured from stress incontinence. If you are not sure that you are doing the correct exercises, ask a doctor, physiotherapist or continence advisor for advice.

If possible, continue pelvic floor exercises as a part of everyday life forever, to stop the problem recurring. Once incontinence has gone, you may only need to do 1-2 five-minute repetitions each day to keep the pelvic floor muscles strong and toned up and the incontinence away.

Other ways of exercising pelvic floor muscles

Sometimes a continence advisor or physiotherapist will advise extra methods if you are having problems performing the pelvic floor exercises. These are *in addition* to those described above. Examples include:

- **Electrical stimulation.** Sometimes a special electrical device is used to stimulate the pelvic floor muscles, with the aim of making them contract and become stronger.
- **Biofeedback.** This is a technique to help you to make sure that you are exercising the correct muscles. For this, a physiotherapist or continence advisor inserts a small device into your vagina when you are doing pelvic floor exercises. When you squeeze the right muscles, the device makes a noise (or some other signal such as a display on a computer screen). This lets you know that you are squeezing the correct muscles.

- **Vaginal cones.** These are small plastic cones that you put inside your vagina for about 15 minutes, twice a day. The cones come in a set of different weights. At first, the lightest cone is used. You need to use your pelvic floor muscles to hold the cone in place. So, it is a way to help you to exercise your pelvic floor muscles. Once you can hold on to the lightest one comfortably, you move up to the next weight and so on.
- **Other devices.** There are various other devices that are sold to help with pelvic floor exercises. Basically, they all rely on placing the device inside the vagina, with the aim of helping the pelvic muscles to exercise and squeeze. There is little research evidence to show how well these devices work. It is best to get the advice from a continence advisor or physiotherapist before using any. One general point is that if you use one, it should be in addition to, not instead of, the standard pelvic floor exercises described above.

Surgery

Various surgical operations are used to treat stress incontinence. They tend only to be used when the pelvic floor muscle exercises have not helped. The operations aim to tighten or support the muscles and structures below the bladder.

The tension-free vaginal tape (TVT) procedure is the name of an operation often used to treat stress incontinence. It involves a sling of synthetic (man-made) tape being used to support the urethra and bladder neck. Sometimes a sling is made using tissue from another part of the patient's own body, such as the tummy (abdominal) muscles.

Colposuspension is the name of another operation to support the urethra and treat stress incontinence.

If you have a vaginal prolapse there is a weakness of the support structures of the pelvis and one or more of the organs of the body drops down into the vagina. Commonly, the prolapse involves the bladder. This is known as a cystocele. Surgical repair of this weakness (called an anterior repair) is often performed to treat the associated urinary incontinence. See separate leaflet called [Genitourinary Prolapse](#) for more information.

Other procedures involve injections of bulking agents around the bladder entrance, to keep it closed. These injections may be either natural materials (such as fat) or synthetic ones (such as silicone).

In general, surgery for stress incontinence is often successful.

Medication

[Duloxetine \(Yentreve®\)](#) is a medicine that is usually used to treat depression. However, it was found to help with stress incontinence separate to its effect on depression. It is thought to work by interfering with certain chemicals that are used in transmitting nerve impulses to muscles. This helps the muscles around the urine outlet (urethra) to contract more strongly.

One study showed that in about 6 in 10 women who took duloxetine, the number of urine leakages were halved compared to the time before they took the medication. Therefore, on its own, duloxetine is not likely to cure the incontinence but may help to make it less of a problem. However, duloxetine in addition to pelvic floor exercises may give a better chance of curing the incontinence than either treatment alone.

Duloxetine may be advised if pelvic floor exercises alone are not helping to treat your stress incontinence. It is usually advised in women who do not want to undergo surgery, or in women who have health problems that may mean that surgery is unsuitable.

Some general lifestyle measures which may help

- **Your GP may refer you to the local continence adviser.** Continence advisors can give advice on treatments, especially pelvic floor exercises. If incontinence remains a problem, they can also give lots of advice on how to cope. Examples include the supply of various appliances and aids such as incontinence pads, etc.
- **Getting to the toilet.** Make this as easy as possible. If you have difficulty getting about, consider special adaptations like a handrail or a raised seat in your toilet. Sometimes a commode in the bedroom makes life much easier.

- **Obesity.** Stress incontinence is more common in women who are obese. **Weight loss** is advised in those who are overweight or obese. It has been shown that losing a modest amount of weight can improve urinary incontinence in overweight and obese women. Even just 5-10% weight loss can help symptoms.
- **Smoking** can cause cough which can aggravate symptoms of incontinence. It would help **not to smoke**.

Can stress incontinence be prevented?

If you do regular pelvic floor exercises (as described above) during pregnancy and after you have a baby then stress incontinence is less likely to develop following childbirth and in later life. Maintaining an average weight for your height will also help.

Further help & information

B&BF - Bladder and Bowel Foundation

SATRA Innovation Park, Rockingham Road, Kettering, Northants, NN16 9JH

Tel: (Helpline) 0845 345 0165, (General) 01536 533 255

Web: www.bladderandbowelfoundation.org

Royal College of Obstetricians and Gynaecologists Patient Information

Web: <https://www.rcog.org.uk/en/patients/>

Further reading & references

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