

Artificial urinary sphincter



Information for patients

Spinal Injuries - Urology



PROUD TO MAKE A DIFFERENCE

SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST



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About your consent

We must seek your consent for any procedure beforehand. Staff will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure proposed, please do not hesitate to ask for more information.

What is an artificial urinary sphincter?

The artificial urinary sphincter (AUS) is a surgically implanted device for controlling stress urinary incontinence. It has been used since 1972. You will have had a video-urodynamic (VUD) test performed before being offered an artificial sphincter (This test uses a combination of pressure sensing devices and X-rays to study the way your bladder behaves). This has helped us determine that an artificial sphincter is appropriate for you. It also helps us decide on the precise location: membranous or bulbar.

- A membranous sphincter requires an incision (cut) to be made on your abdomen, between your navel and pubic area.
- A bulbar sphincter requires an incision in your perineum (between your genitals and your anus), and another in your groin.

Where and how is it fitted?

The AUS is surgically implanted through incisions as described above. It is a small device which is placed inside your body and no parts are visible. The balloon is in the abdomen and the pump is placed in either the left or right scrotal sac (this sac contains your testicles) in males, or the labia in females. The cuff, which holds a small amount of fluid, is inflated and wraps around the urethra (the passage leading from the bladder to the external opening). It functions like a healthy sphincter in that it keeps the urethra closed until you want to urinate.

How does it work?

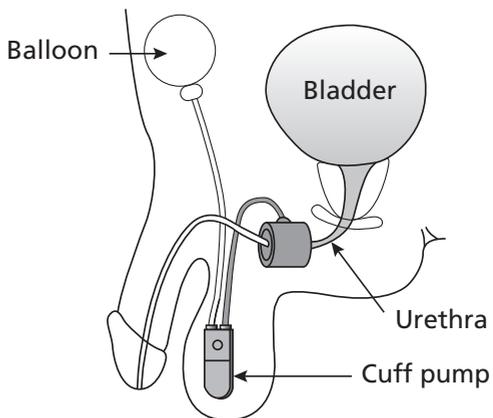
The inflated cuff applies gentle pressure to the urethra. This helps to hold the urine in the bladder and as a result improves continence. The pump has a soft, curved end which can easily and gently be pressed to transfer the fluid from the cuff to the balloon. We will show you what it looks like before your operation.

When it is time to urinate (pass water) the pump is used to move the fluid from the cuff into the balloon, opening the cuff. The bladder can then be emptied by the method you normally use.

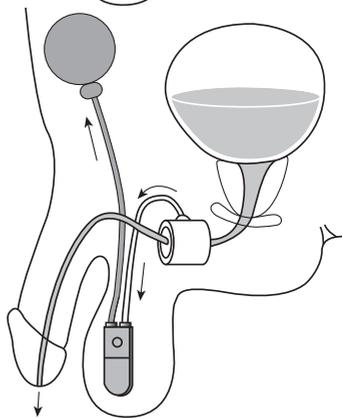
This device will not make you pass urine normally if you do not already do so: it only improves continence.

After a few minutes the fluid returns to the cuff, which closes it again, and the pump returns to its original shape.

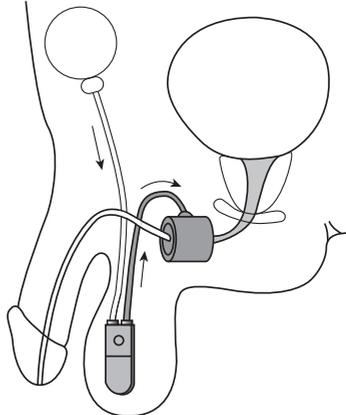
- The bladder is full.
- The cuff is inflated.
- The balloon is empty.



- Squeeze the pump in the scrotum.
- This deflates the cuff.
- The balloon fills up.
- You can now pass urine (you may have to use an intermittent catheter).



- After a few minutes, the cuff automatically starts to refill.
- The balloon empties.



What can I expect before my surgery?

The urologist will ask you to have a counselling session with the urology nurse specialist. They will discuss the procedure in detail and clarify any issues or answer any questions you may have. It is always beneficial to bring someone along with you to this session.

About two to three weeks before the operation you will be asked to attend our clinic:

- A routine set of swabs will be taken.
- A urine sample will be taken.
- A set of blood samples will be taken.
- You will have a pre-operative assessment performed by the spinal injuries pre-op team.
- Dependent on your age and heart condition, you may have an ECG performed.
- It is not usually necessary to see the anaesthetist before your admission for surgery. He/she will visit you during your admission.

When can I expect to have my artificial sphincter activated?

The sphincter cannot be activated (set to start working) until 6 weeks after surgery. This allows time for the swelling and bruising to settle and the incision to heal. An appointment will be made for you to see the nurse specialist to have the sphincter activated and you will have a further appointment in 3 months to see the urologist.

Will urine still leak after the sphincter is activated?

The urologist will discuss with you. You may not be 100 per cent dry and it is not unusual to wear a light pad in your underwear to protect against any occasional minor leakage which may occur.

When can I expect to be admitted?

Once the urologist has placed your name on the waiting list, we will plan your surgery in accordance with your place on the list and when a suitable theatre session becomes available. We will contact you a few weeks before to confirm the date. You will be admitted the day before your surgery. The ward doctor will assess you and you may have an enema prescribed on the evening before your surgery. You may be required to have a pre-operative enema to ensure your bowels are empty in preparation for your surgery.

What can I expect after surgery?

You will return to the ward with a catheter inserted through your urethra. The urethral catheter is generally removed the following day. If you have a suprapubic catheter the urologist / nurse specialist will provide you with specific advice. You may need to perform Intermittent catheterisation should you retain urine following removal of the indwelling catheter. The urology nurse specialist will advise you.

You may have an intravenous infusion (drip) to replace lost fluid. This will be removed as soon as you are drinking.

You may have a patient controlled analgesia (PCA) pump. Some pain after surgery is normal and you can usually be treated with oral medication.

You will have incisions as described, which will require a dry dressing. Your scrotum may be bruised and swollen. This is perfectly normal and will settle down within a week. We would encourage you to mobilise (sit out in your chair). It is a good idea to wear a scrotal support. The nursing staff will supply you with this.

You can expect to be discharged several days after your surgery.

Do I need to carry a card stating that I have an artificial urinary sphincter?

This is important and will be given to you at the hospital.

If you need to have an indwelling (permanent) catheter for any reason in the future, the sphincter will need to be deactivated by a suitably qualified doctor or nurse specialist who is familiar with this deactivation process. Deactivation drains the fluid from the cuff and keeps it empty. If it is not deactivated first, an indwelling catheter could ruin your artificial sphincter.

How long can I expect the artificial sphincter to last?

This is different with every patient. However, the average length of time before it needs to be replaced is approx. 10 years. If you notice a change in the way your sphincter works it is important that you contact the nurse specialist. Replacing the device requires a surgical procedure and you will need to be placed back on the urology waiting list for this to be planned and a date to be arranged.

What problems cause the sphincter to need replacement?

- The device can become infected. Significant infection can mean that the device has to be removed. This often happens following erosion of the urethra.
- The cuff can erode (wear through) the urethra. This commonly leads to infection.
- The device can stop working because the fluid has leaked out (the reservoir may have leaked or the tubing become disconnected).

What signs of these problems should I look out for?

- Pus leaking down your urethra.
- Difficulty passing an intermittent catheter.
- Swelling and/or discolouration in the genital area.
- Increased urinary incontinence.
- Infection can also be triggered if you develop a sore or other skin problem in your genital area.

Contact details:

Urology Nurse Specialist: Marie Watson or Carol Eggington:

- **0114 226 6823**
- **0114 271 5624**
- **0114 243 4343** ask for bleep **2882** or **2494**

In an emergency or out of hours, contact Osborn 2 on:

- **0114 271 5628** or alternatively **UAU** at the **RHH** on **0114 22 65149**

Or you can ask for on-call urology registrar at the Royal Hallamshire Hospital:

- **0114 271 1900**

Alternative formats can be available on request.

Please email: sth.alternativeformats@nhs.net

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