About Your Artificial Urinary Sphincter

This information what an artificial urinary sphincter (AUS) is and the surgery to have it placed.

About Your Urinary Sphincter

Your urinary sphincter is a muscle that controls the flow of urine (pee) out of your bladder (see Figure 1). When your urinary sphincter is contracted (closed), it blocks the opening of your bladder so urine doesn’t leak out.

Figure 1. Urinary sphincter
Normally, your urinary sphincter stays contracted until you choose to relax (open) it to urinate (pee). When you relax your urinary sphincter, urine leaves your bladder and flows through your urethra (the tube that carries urine from your bladder out of your body) and out of your body.

Some people have trouble controlling their urinary sphincter. This causes them to leak urine. This can happen after surgery to remove the prostate or radiation therapy to the prostate.

You may need an artificial urinary sphincter (AUS) if you lose control of your urinary sphincter.

**About Artificial Urinary Sphincters**

An AUS is a device that works like your natural urinary sphincter (see Figure 2). An AUS is made up of 3 parts:

- **Urethral cuff**: This wraps around your urethra to control the flow of urine. When the cuff is closed (filled with fluid), no urine can pass through. When it’s open (not filled with fluid), urine can pass through.

- **Pump**: This moves fluid into or away from the urethral cuff. It’s placed in your scrotum.

- **Balloon**: This holds the same fluid as the cuff. This is where the fluid is moved to when the urethral cuff is open or deflated. It’s placed under your abdominal (belly) muscles.

Figure 2. Artificial urinary sphincter (AUS)
To urinate with an AUS, you must squeeze the pump in your scrotum. The pump moves fluid from the urethral cuff into the balloon, allowing the cuff to open or deflate and your urethra to open. Your cuff stays open for about 3 minutes so that you can urinate. The cuff will close automatically.

An AUS is placed during a surgery.

**Risks associated with having an AUS**

Although not common, the following problems can occur:

- Pain
- Bleeding
- Infection, which can require that the AUS be taken out
- Problems with any part of the AUS, which can require surgery to take it out or replace it
- Injury to your urethra
- Ongoing leakage of urine
- Long-term or permanent problems urinating
  - You may have to insert a catheter into your bladder to drain your urine.
  - You may also need to have another surgery to fix the problem.
- Trouble holding in your urine
- The AUS can wear out over time usually in 8 to 10 years and when it does, it will need to be replaced.

**About Surgery to Place an AUS**

Your healthcare provider will give you information about how to get ready for your surgery. Be sure to follow their instructions. Call your doctor’s office if you have any questions.
During surgery

You’ll get anesthesia (medication to make you sleep) before your surgery. Once you’re asleep, your surgeon will make 2 small incisions (surgical cuts):

- 1 in the space between your scrotum and anus
- 1 near your lower abdomen (belly)

Your surgeon will then place your AUS. Once the surgery is done, your incisions will be closed with sutures (stitches) that will dissolve on their own and won’t need to be removed.

After surgery

In the hospital

You will wake up in the Post Anesthesia Care Unit (PACU). You will have a catheter and other medical devices connected to your body after your surgery, including:

- A urinary (Foley®) catheter that will drain urine from your bladder.
- An intravenous (IV) line to give you:
  - Fluids
  - Antibiotics
  - Pain medication
  - Other medication as needed
- Inflatable boots on your legs, which help circulate blood through your legs and prevent blood clots.

These devices are usually removed before you leave the hospital. If you will leave the hospital with any of them in place, your healthcare provider will teach you how to care for them.

Your urine may leak from your AUS after your surgery. This is normal and will stop once the AUS has been activated by your doctor about 6 to 8 weeks after your surgery. Call your doctor’s office to make a follow-up appointment for about 2 weeks after your visit.
Order MedicAlert® jewelry
Before you leave the hospital or at your first follow-up visit, order a MedicAlert® bracelet or necklace. Your healthcare provider will give you an order form. Your bracelet or necklace should state the following information:

AUS: Artificial Urinary Sphincter
Brand: AMS 800
Phone: 800-328-3881

Medications
You may get prescriptions for the following medications before you go home:

- An antibiotic
- Pain medication
- A stool softener to prevent constipation (having fewer bowel movements than usual)

You will be able to go home the day after your surgery.

At home
You can shower 48 hours after your surgery. If you have any bandages, remove them when you shower. You don’t need to put more bandages on your incisions after you shower.

If your bandages fall off or get dirty in the first 48 hours after your surgery, replace them with clean bandages.

Wear a scrotal support
For the first week after your surgery, you must wear the scrotal support that you received before you left the hospital. If the scrotal support gets wet, you will need to replace it. You can buy another scrotal support at any drug or surgical supply store.
Resuming your normal activities

You can go back to doing most of your normal activities the day after your surgery. You will need to wait 6 weeks to do any strenuous activities, such as:

- Working out at the gym
- Playing golf
- Riding a bicycle
- Lifting objects heavier than 10 pounds (4.5 kilograms)

Your doctor will tell you when you can resume sexual activity.

Make a follow-up appointment

See your doctor 2 weeks after your surgery. Call your doctor’s office to make the appointment.

When to Call Your Healthcare Provider

Call your healthcare provider if you have:

- A fever of 101 °F (38.3 °C) or higher
- Increased bleeding or swelling
- Pain that doesn’t get better with pain medication
- Severe bladder spasms
- Trouble urinating

If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.