

# Bladder Function Study Appointment

## *Pediatric Urodynamic Study*

A **urodynamic study**, also called **UDS**, looks at how the bladder is working. The bladder is where pee is stored. Its muscles must squeeze to empty and push pee out. A UDS helps the care team see how your child's bladder fills, squeezes, and empties. This handout explains how a UDS is done and what will happen during your child's UDS appointment.

### How a UDS is done

A UDS is done by measuring the pressures inside and around your child's bladder. These pressures are measured and recorded from a machine that is connected to thin tubes, called **catheters**, which are placed inside their body.

A UDS also measures some of the muscle activity of their body. These muscle movements are measured and recorded from a machine that is connected to stickers that are placed on your child's skin.

### What happens at the beginning of a UDS appointment?

Before the bladder function study begins you will be able to visit with a **Child Life Specialist**. Child life specialists help support you and your child during the study. They meet with you **30 minutes before the study begins** to explain to your child what will be done. They will partner with you to plan how to comfort and distract your child during the placement of the catheters. After visiting with the child life specialist:

1. **Stickers** are placed on **1 of your child's knees and both sides of their bottom** to measure their muscle activity.
2. A **rectal catheter** is placed up their bottom, called the **rectum**, to measure the pressure their abdominal muscles create. This is important because abdominal muscles can affect the pressure on the bladder.
3. A **bladder catheter** is placed up their pee tube, called the **urethra**, into their bladder. A numbing jelly is placed on the bladder catheter to help your child be comfortable during its placement. The catheter is used to both fill and empty the bladder with fluid during the studies.

Both the catheters are taped to your child's skin to make sure they do not fall out during the study. They are each connected to a machine that measures and records pressures both in and on the bladder when it is empty, as it is filling up with fluid, when it is full, and as it is emptying.

Putting your child to sleep can affect the study results, so children are awake for the placement of the catheters and the UDS.

## What happens during the UDS?

To get the most accurate results, we will work with you to help your child be as still and quietly distracted during the study.

If no x-rays are ordered during a study, then any caregiver can stay with their child during the studies.

**If x-rays are ordered, and a caregiver is pregnant, they cannot stay with their child during the study.**

The steps of the study are as follows:

1. **Slowly fill your child's bladder with fluid.** The care team will use the catheter tube to fill your child's bladder with either a type of water called **saline**, or an **x-ray dye**, if x-ray images of the bladder are ordered.
2. **Empty your child's bladder in either 1 of 3 ways:**
  - **If your child can pee on their own**, they will be asked to try to pee in a bedpan or in a bedside commode. Because their catheter is attached to a machine, they cannot go to a bathroom.
  - **If your child is not potty trained**, the care team will fill their bladder until they pee on the pad that placed underneath them.
  - **If they are physically unable to pee**, then they would have their pee removed through the catheter.
3. **Repeat the filling and emptying of the bladder.** For a study done with saline, the bladder will be emptied and refilled **2 to 3 times**. If the bladder was filled with x-ray dye, it is filled and emptied **1 to 2 times**.
4. **Empty any remaining fluid in the bladder.** When the study is complete, any fluid left over in their bladder is emptied through the catheter.
5. **Remove the stickers and both catheters.**

## Follow-up after the UDS

The care team will meet with you after the results of the UDS are completed. This can be done in person, or on a telehealth call.

It is normal to have a feeling of burning or irritation the next few times your child pees after the study is done. This is because the catheter rubbed the inside of their urethra. If your child is not peeing, or complaining of irritation while they pee, we recommend you do the following to help them pee:

- Give your child pain medicine that can be bought without a prescription such as **acetaminophen** also called **Tylenol®**, or **ibuprofen**, also called **Motrin®** or **Advil®**.
- Give your child a warm bath.
- Give your child a lot of fluids to drink to help dilute their urine.
- If your child is younger, you can play or tickle your child to see if they will pee.

If your child has	Then you should
Not peed for over 8 hours after doing the recommendations above.	Seek immediate medical care at an emergency room.
Signs of a urinary tract infection such as: <ul style="list-style-type: none"> <li>• Pain while peeing.</li> <li>• Pee that smells strong or bad.</li> <li>• Blood seen with pee.</li> <li>• Fever is higher than <b>100.4°F or 38°C</b>.</li> <li>• Increased fussiness in babies.</li> </ul>	<p><b>Call your child's pediatrician</b> and tell them, "My child had a urodynamic study done and I think they may have a UTI."</p> <p>Please let the <b>urology clinic</b> also know that you have called your child's pediatrician by sending them a MyChart message or by calling <b>(650) 723-6100 Monday to Friday, 8:00 a.m. to 4:30 p.m.</b> Please leave a message including your child's name, date of birth and a call-back phone number. They will call you back within <b>24 hours</b>.</p>

## Rescheduling or cancelled UDS appointments

A UDS appointment will need to be rescheduled, or it may be cancelled by the care team for any of the following reasons:

- Not been given the antibiotics as prescribed.
- Being constipated or not pooping regularly before the appointment.
- Signs of being sick such as having a urinary tract infection. Signs of a urinary tract infection are:
  - Pain while peeing
  - Pee that smells strong or badly
  - A fever higher than **100.4°F or 38°C**
  - Blood seen with pee
  - Increased fussiness in babies
- The caregiver arrived to the appointment without arranging childcare for any other children that may be in their care for during the study. Siblings will not be allowed in the testing area during the UDS.
- Arriving late to the UDS appointment.
- The care team is not able to place the catheters during the appointment.

If you think you may need to reschedule your child's UDS appointment for any of the reasons above, call the care team at **(650) 723-6100 from 8:00 a.m. to 4:30 p.m.** or send a message through **MyChart**.

The care team will work with you to help reschedule your child's UDS as soon as possible.

If you have any questions about the UDS, please send a message to the **Urology Care Team** through MyChart or call the **Urodynamic Care Team** at **(650) 723-6100**.