

Texas Children's Hospital

Caring for Your Child's Health

Whitaker Test

Patient must arrive an hour and a half before the procedure to check in at the Radiology waiting area. This is on the first floor, in the **West Tower at Main Campus** or second floor at **West Campus**. Call 832-824-5565 (Main Campus) or 832-227-1207 (West Campus) with any questions. Call our scheduling department at the numbers above if you need to reschedule your appointment.

Your child will remain in the IR Procedures Suite for a minimum of one hour. Children having a Whitaker will need medicine to make them drowsy. Prepare your child by following the guidelines for eating and drinking.

Procedure: A Whitaker test is a minimally invasive, image guided treatment used to measure the pressures in the kidney and bladder to determine whether or not an obstruction exists in your child's urinary system. It detects subtle obstructions that cannot be detected by imaging or other means.

If fluid is infused into the kidney faster than it can pass through a blockage, the pressure inside the kidney will rise. In a Whitaker Test, the pressure inside the kidney is measured, allowing the radiologist to detect even mild blockages. Antegrade pyelography, another interventional radiology procedure that visualizes contrast flowing from the kidney into the ureter and bladder, is an integral part of the Whitaker.

Getting ready for the procedure

Guidelines for eating and drinking

Up until eight hours before the procedure, your child may have these items: Any type of food

Up to six hours before the procedure, your child may have these items:

- A light meal
- Milk-skim milk only
- Infant formula

- Clear liquids

A light meal generally consists of toast or plain crackers and fruit juice, without the pulp. Clear liquids include water, oral electrolyte solution, apple juice, gelatin and carbonated lemon and lime beverages. Please do not give your child any drinks that contain caffeine, such as cola drinks.

Up until four hours before the procedure, your child may have these items:

- Breast milk
- Clear liquids

Up until two hours before the procedure, your child may have these items:

- Water or Pedialyte
- Apple Juice
- Gatorade

All children having this procedure receive medicine by IV to make them drowsy during the procedure. This medicine is called a sedative or general anesthesia. If your child has had a problem with a sedative in the past, talk with the nurse. The doctor may be able to give your child a different medicine.

Helpful hints

Let your child choose something to bring. Holding a favorite toy or blanket sometimes helps a young child to sleep. Using an ipod/pad often helps an older child. Please remove any nail polish before coming. It's best to leave other children at home.

Talking with your child

Children are less anxious and cooperate better when they know what to expect. Talk with your child about what he or she will see, hear, and feel before and after the procedure.

Ask your child questions to be sure that he or she understands what you have said. Let your child ask questions. Don't be afraid to answer the questions honestly. Most important, reassure your child that he or she will not be alone.

What your child can expect during procedure

- All children having this test receive medicine by IV to make them drowsy during the procedure. This medicine is called a sedative or general anesthesia. If your child has had a problem with a sedative in the past, talk with the nurse. The doctor may be able to give your child a different medication.
- A staff person from the hospital will call you a few days before the procedure with preparation instructions that will include dietary restriction necessary for sedation or anesthesia. It is very important that you follow all of these instructions, or the procedure may need to be rescheduled.

Before the procedure

- Your child will put on a hospital gown. Wearing underwear during the procedure is okay. The nurse will weigh your child and take his or her blood pressure and temperature. Heart monitor patches are applied to his or her chest. A pulse oximeter will be taped onto your child's finger. The pulse oximeter looks a lot like a band aid. It uses a red light to check how well your child is breathing. It is painless.
- The nurse starts an IV for the sedative medicine. After the interventional radiologist explains what will happen, you will sign a consent for the procedure.

During the procedure

- Your child will be positioned on an angiographic table and placed under general anesthesia.
- The nurse will insert a small, soft tube into your child's bladder.
- Your child will be positioned prone (on the stomach), and the kidneys will be examined with an ultrasound probe.
- The technologist will clean the skin of your child's back with a special soap and places sterile drapes to prevent infection.
- The radiologist will insert a local anesthetic (numbing medicine) into the skin and then places a thin needle into the kidney, using the ultrasound images for guidance.

- The radiologist uses the needle to deliver contrast material into the kidney at a specific rate.
- Pressures are measured through the needle in the kidney and the catheter in the bladder.

After the procedure

- At the end of the procedure, the needle and catheter are removed and a small bandage is applied where the needle was inserted. Occasionally, in cases where significant obstruction is found, the radiologist will place an indwelling catheter (nephrostomy tube) in the kidney through the initial puncture site. This will allow urine to drain until your child's medical team can formulate a plan to treat the obstruction.
- Your child will be transferred to the recovery room where you may join him or her. A nurse will watch your child closely and check the area for possible bleeding.
- Once your child is awake, he or she may drink clear liquids in the recovery area.

Finding out the results

The interventional radiologist will speak with you after the procedure and explain the findings and results. You will need to make an appointment with your child's doctor will discuss the results of the procedure with you and what they mean for your child.

Interventional Radiology (IR)

Main Campus

6621 Fannin Street
Houston, TX 77030
West Tower Level 1
832-824-5565
8 a.m. to 4 p.m.
Monday to Friday

West Campus

18200 Katy Freeway
Houston, TX 77094
Second Floor, Suite WB.0215.60
832-827-1207
8 a.m. to 4 p.m.
Monday to Friday



**Texas Children's
Hospital**

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1919 S. Braeswood, suite 6226 Houston, Texas 77030
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