

Please note: If there is a chance your child may be pregnant, tell a member of the care team before the test, so we can contact their doctor to see if the test still needs to be done.

What is a nuclear cystogram?

A nuclear cystogram is a test to check for vesicoureteral reflux (VUR). VUR is when urine moves backwards from the bladder. Normal urine flow is from the bladder and then out of the body.

With VUR:

- Urine goes back up into 1 or both ureters. Ureters are the tubes that connect the kidney to the bladder.
- Urine may go backwards in 1 kidney or both kidneys.
- Children can get infections and kidney damage if they do not receive treatment.

What do I do before the test?

You do not need to do anything before taking your child to the test. The only thing we ask is that your child not urinate right before the test.

Please plan in advance for the care of any brothers or sisters on the day of the test. You will want to focus on caring for the child who is having the test.

What will the test be like?

- The nuclear medicine technologist (a person trained in taking these special pictures) will take you and your child to the exam room.
- Your child will change into a hospital gown.
- They will lie down on a special table with safety belts or a papoose board. This will help keep your child still and keep them safe. The nuclear medicine camera is under the table and comes close, but does not touch your child.
- The technologist will clean your child's genital area (privates) with special germ-killing soap. They will insert a thin, soft, plastic tube called a catheter through the urethra into the bladder.
 - This may cause a feeling of pressure or need to urinate. The more your child can deep breathe, relax and hold still, the less discomfort they will feel.
 - Most often, your child will not feel the tube once it is in the bladder or as it is being taken out.
- The technologist will attach a bag of saline (sterile saltwater) to the catheter. It will have a small amount of a radioisotope (a radioactive liquid) in it. This allows the doctor to see the bladder more clearly.
 - The saline and radioisotope are used to fill your child's bladder through the catheter.
 - The fluid in the bladder then drains back into the saline bag.
 - The bladder may be filled again with the saline and radioisotope.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Nuclear cystogram, continued

- As your child urinates and empties their bladder into a container, the catheter most often comes out, too.
- If your child cannot urinate and empty their bladder, the technologist may use warm water on their skin to help.
- Pictures of your child's bladder will be taken during the filling and draining process.
- Your child needs to lie very still for the test.
- The test may take 1 hour or longer to complete. It may take longer based on your child's needs.
- Your child may watch TV during the test. We also have videos for your child to watch.

Note: You may stay with your child during the test. Brothers, sisters and pregnant mothers are not allowed in the exam room.

Who does the test?

The nuclear medicine technologist inserts the catheter, fills the bladder with the radioisotope and takes the pictures.

Who looks at the pictures?

A pediatric radiologist, a doctor specially trained in children's X-rays, looks at all of the pictures. They will send the results to doctor who ordered the test, and they may also talk with your child's doctor.

Are there any risks?

- Radiation in general is a risk; however, the amount of radiation used is the smallest amount possible to get the best pictures.
- The amount of radioisotope used is so small that it poses no great risk. The dose given is based on guidelines developed by experts (the North American Consensus Guidelines for Pediatric Administered Radiopharmaceutical Activities and Image Gently).

What happens after the test?

- The technologist will give you special instructions and let you know when your child may leave.
- Have your child drink lots of fluids until they go to bed. This will help flush the radioisotope from their body.

When do I get the results?

The radiologist will look at the pictures and send the results to your child's doctor.

- If there is a serious problem and your child needs treatment, we will contact the doctor before you leave the Radiology department.

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Nuclear cystogram, continued

- If there is not a serious problem:
 - Your child’s doctor will contact you with the results in about 1 to 2 business days.
 - Call your child’s doctor if you have not heard any test results after 3 business days.

How should I help prepare my child?

Babies

- Bring a special blanket, toy or pacifier.
- Comfort your baby with your presence and voice.
- Bring along a bottle of juice or formula to feed them **after** the test.

Toddlers and preschoolers

- Young children remember things for only a short time. The best time to talk about the test is right before it is time to leave for the hospital.
- Tell your child they will have some “pictures” taken, so the doctor can help them feel better.
- Use simple words, and be honest with them.
- If it is going to be uncomfortable or painful to hold still in a certain position, talk with your child about it and let them know it is OK to cry.
- Let your child know that:
 - It is important for them to remain still while the pictures are being taken.
 - You will stay with them as much as possible during the test.
- Bring a favorite book, toy or blanket.
- You may also bring along a snack for **after** the test.

School-age children

- It is important to be honest with school-age children. They may think something worse than what is really going to happen.
- One or 2 days before the test, tell your child they are going to have some special “pictures” taken of their body.
- Use simple words, and be honest with your child. Try to tell them exactly what will happen.
- If it is going to be uncomfortable or painful to hold still in a certain position, talk with your child about it and let them know it is OK to cry.
- Let your child know that:
 - It is important for them to remain still while the pictures are being taken.
 - You will stay with them as much as possible during the test.
- Bring along a favorite book, toy or game.
- You may also bring along a snack for **after** the test.

This teaching sheet contains general information only. Talk with your child’s doctor or a member of your child’s healthcare team about specific care of your child.

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