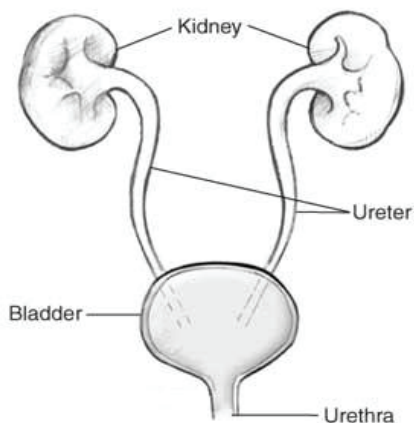


DMSA

What is a DMSA?

Note: Child-friendly language in green.

- A DMSA Renal Scan is a nuclear medicine study of your child's kidneys. It will create pictures of your child's kidneys, showing both their shape and how they are working.
- In nuclear medicine studies, patients are given a very small amount of radioisotopes (**picture medicine**), which travel to the part of the body the doctors want to see.
- In this study, these radioisotopes are used by a large gamma camera to create pictures of your child's kidneys.



What can I do to help my child?

- Parents/caregivers are strongly encouraged to stay with their child throughout the entire procedure whenever possible. You are the most important thing to your child. Your presence and reassurance will help them feel more safe and secure.



Patient and Nuclear Medicine Technologist

Why is it done?

- This procedure is usually recommended after a urinary tract infection (UTI) and/or pyelonephritis (kidney infection).
- It will check how both kidneys are working and also for possible scarring of one or both kidneys.



Patient getting ready for DMSA Renal Scan

What should I expect during the procedure?

This test is done in two stages. The entire procedure takes about 2– 2.5 hours or, if your child is receiving sedation, 3-4.5 hours

Stage 1: Injection

- For a DMSA Renal Scan, your child will be given an injection of a small amount of radioisotope (picture medicine) through a vein.
 - * Your child may either sit on your lap or by his or herself with their arm stretched out on the bed.
 - * Young children may be wrapped in blankets to help them stay still during the injection and/or pictures.
- A nurse or technologist (person who helps take the pictures) will then look for the best place to give the injection and wash this area with a cool sponge.
 - * Let your child know that their job is to hold their arm very still.
- Next, a technologist will place a small needle into a vein in your child's arm or hand to inject the radioisotope (special medicine). Once the radioisotope is injected, the small needle is removed.
 - * Your child may feel a little discomfort, like a small quick poke, when the needle is placed.
 - * Counting, singing a favorite song, and/or taking deep breaths can help.
- You and your child will be instructed to come back for the pictures 1.5 hours after the injection.
 - * Encourage your child to bring their favorite toy or game to help with the long wait time.

Stage 2: Pictures

- When it is time for the pictures, your child will need to lie on his or her stomach and hold very still under the camera. A large camera will be positioned very close over your child, but will not touch him or her.
- Approximately five pictures will be taken, lasting up to 10 minutes each. Your child must lie absolutely still during each picture or the images may be unreadable (blurry). The radiologist (picture doctor) may also order additional pictures, after viewing the initial images.
 - * To help make this part easier many children like to watch a movie (we can provide DVDs and portable DVD players).
 - * Sedation is an option for those unable to hold still for the pictures. If your child is scheduled with possible sedation, a nurse will call you 1 or 2 days before to let you know how to prepare your child.
- Results will be sent to your doctor in 1-2 business days.



Patient in laying on camera bed.

Tips for preparing your child for a DMSA



Infants (0-12 months old):

- Remember you are the most important thing to your child. Your presence will help them feel as safe and secure as possible.
- Take care of yourself too. If you are prepared mentally and physically, you will be more relaxed around your child.
- Bring familiar objects that comfort your child such as a favorite blanket, toy or pacifier.
- Remember that children use many different ways to cope. Crying is a healthy and normal way for children to cope because it allows them to express their emotions.

Toddlers (1-3 years old):

- Begin preparing your child the day before.
- Let your child know that he or she will have special pictures taken, so the doctor can learn about his or her body.
- Use simple words to describe what your child may experience.
- Reassure your child that you will be close.
- Bring comfort items with you that help your child feel safe such as a favorite toy or blanket.
- Toddlers are learning to be independent and make their own choices; offer them realistic choices. For example, “What stuffed animal should we bring?”

Preschoolers (3-5 years old):

- Begin preparing your child about 1-3 days in advance.
- Talk to your child about why they are having pictures taken. For example, “The doctors will be taking special pictures of inside your body to learn more about how your body works.”
- Let your child know that he or she will be getting special medicine first, which helps the pictures be bright and clear. Talk about ways to help make this “quick poke” part easier, such as pretending to blow out birthday candles, looking away, counting or singing.
- Tell your child that it is his or her big job to hold still so that the pictures don’t turn out blurry.
- Remind your child that the special big camera doesn’t touch or hurt kids.

School Age and Up (6 years old and up):

- Prepare your child at least a few days in advance.
- Talk to your child about why the doctor wants to take special pictures of inside his or her body. For example, for a younger child, “So the doctor can learn more about how your body works.” For an older child, “So the doctor can learn about how your kidney’s are working.”
- Explain to your child what he or she might, see, hear and feel, in the order things will occur, using child-friendly and/or real terms, depending on your child’s age and/or preference.
- Talk to your child about different ways to cope. Some children like to know everything that is happening during the exam, and some want to direct their attention elsewhere. Remind them that either way is okay.
- Encourage your child/teen to ask questions.

My questions for the Radiology staff ...

- 1.
- 2.
- 3.
- 4.
- 5.

Child Life

Children's National Medical Center Department of Radiology is staffed with two full-time Child Life Specialists at Children's National Medical Center Main Campus. Child Life Specialists are trained to address the emotional and developmental needs of children and their families during healthcare experiences, and can provide procedural preparation and support before and during your child's exam.

Phone Numbers

- If you would like to speak to a Child Life Specialist before your child's Radiology appointment at Children's National Medical Center Main Campus, please call **202-476-3338**.
- For more information about hospital-wide Child Life Services at Children's National Medical Center, please call **202-476-3070**.

Children's National Medical Center supports the Image Gently campaign and strives to keep radiation exposure to our patients as low as possible. For more information on this campaign, please visit www.imagegently.org