

DTPA GFR Study

How to prepare and what to expect

This handout explains a DTPA GFR study. It includes how to prepare for the study, how it works, and how to get your results.

What is a DTPA GFR study?

DTPA stands for *diethylenetriamine pentaacetic acid*. GFR stands for *glomerular filtration rate*. This study is done to diagnose kidney problems.

Glomeruli are tiny filters in the kidneys that remove waste from the blood. The GFR tells how much blood passes through your glomeruli each minute. This study will show the GFR for each of your kidneys.

How does the study work?

First, a technologist will inject a small amount of a radioactive *tracer* into your vein. We will then use a *gamma camera* to take images of your kidneys. The tracer helps details show more clearly in the images.

Over the next 4 hours, your kidneys will filter the tracer from your blood. During this time, we will collect 4 samples of your blood. These samples will tell us how quickly your kidneys are filtering out the tracer.



We will take 4 samples of your blood after the injection.

How do I prepare?

- *If you were assigned female at birth:* Tell your provider if you are pregnant or breastfeeding, or if there is any chance you could be pregnant.
- **Most patients must stop taking diuretics the day of the test.** If you take diuretics, ask your doctor for instructions.
- **On the morning of your study:** Do **not** drink or eat anything that contains caffeine. This includes coffee, black and green tea, energy drinks, soda pop, chocolate, diet pills, and some medicines.
- **Over the 90 minutes before you arrive for the study:** Drink 20 ml of water for every kilogram (kg) of your body weight. **Most adults need to drink 1 to 2 liters of water.**



A gamma camera

To help you know how much to drink:

- 60 ml = 2 ounces
- 1 kg = 2.2 pounds

For example, someone who weighs 150 pounds (68 kg) needs to drink 46 ounces (1,360 ml or 1.36 liters) of water.

How is the study done?

- *If you were assigned female at birth:* Before the study begins, tell the technologist if there is any chance you could be pregnant.
- The technologist will place 2 *intravenous* lines (IVs), 1 in each arm. One IV will be used to inject the tracer and the other will be used for the blood draws.
- You will lie on an exam table. We will inject the tracer into the IV.
- A gamma camera will take pictures for 6 minutes. After that, we will remove the IV that was used for the tracer.
- At this point, you may leave the Nuclear Medicine department. **You must return 1 hour, 2 hours, 3 hours, and 3½ hours later.** Each time you return, we will take a blood sample.
- During the study, you must drink plenty of fluids and avoid caffeine. It is OK to eat.
- When we have taken all 4 blood samples, we will remove the other IV. After this, you may leave the hospital.

What will I feel during the study?

Most people do not feel any discomfort during this study.

Who interprets the results? How do I get them?

After the test, the Nuclear Medicine doctor will review your results, prepare a written report, and talk with your provider. It takes 24 to 48 hours for the final report to be ready.

Your provider will talk with you about the results. You and your provider will decide next steps, such as treatment, as needed.

You may also read your results on your MyChart page.

Be sure to ask your provider if you should to restart any medicines that you stopped for this study.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC Imaging Services:
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