UW Medicine
UNIVERSITY OF WASHINGTON MEDICAL CENTER

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.

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What is a DTPA GFR study?

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

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

A DTPA GFR study is done in the Nuclear Medicine department.

How does the study work?

First, a technologist will inject a small amount of a radioactive *tracer* into your vein. We will use a *gamma camera* to take images of your kidneys while the tracer is in your body. This gives your doctor information about the health of your kidneys.

Over the next 4 hours, your kidneys will filter the tracer from your blood (*glomerular filtration*). 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. This gives us your GFR.

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

How do I prepare?

- **Most patients must stop taking diuretics the day of the test.** If you take diuretics, tell your doctor you are having this study, and ask for instructions.

UWMC Imaging Services/Nuclear Medicine | Box 357115
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A gamma camera

- **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, some pain medicines, diet pills, and more.
- **In the 90 minutes before you arrive for the study:** Drink 20 ml of water for every kilogram (kg) of your body weight. To help you know how much to drink:
  - 60 ml = 2 ounces
  - 1 kg = 2.2 pounds

  Most adults need to drink 1 to 2 liters of water. 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?

- When you arrive at the lab, 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 imaging table. The tracer will be injected into the IV.
- A gamma camera will take pictures for 6 minutes. After the images are done, we will remove the IV that was used for the tracer.
- At this point, you may leave the Nuclear Medicine department. **But, you must return 1 hour, 2 hours, 3 hours, and 3½ hours later.** Each time you return, the technologist 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?

When the test is over, the Nuclear Medicine doctor will review your results, prepare a written report, and talk with your provider. Please note that it takes 24 to 48 hours for the final report to be ready.

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

You may also read your results on your eCare Results 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 - Montlake Imaging Services: 206.598.6200
- ❑ Harborview Nuclear Medicine: 206.744.4473

Published PFES: 2019, 2023
Clinician Review: 04/2023
Reprints on Health Online: https://healthonline.washington.edu

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