

Radionuclide Ventriculography (MUGA Scan)

Radionuclide ventriculography (RVG, RNV) or radionuclide angiography (RNA) is often referred to as a MUGA (multiple-gated acquisition) scan. It is a type of nuclear imaging test. This scan shows how well your heart is pumping.



What to expect during the test?

During the MUGA scan, a small amount of a radioactive substance or tracer (called a radionuclide) is put into your blood. The tracer attaches to your red blood cells. A gamma camera takes pictures of your heart. This lets doctors see the blood inside your heart's pumping chambers (ventricles). The pictures are taken at the same time during each heartbeat (ECG-gated). A computer analyzes the pictures. The pictures show if areas of your heart muscle aren't contracting normally and show how well your heart pumps blood.

Can I eat or drink on the day of the test?

Yes. However, **avoid all products containing caffeine for 24 hours** before the test. In general, caffeine is found in coffee, tea, colas, Mountain Dew® and chocolate products.

Also **avoid decaffeinated or caffeine-free products for 24 hours** before the test, as these products contain trace amounts of caffeine.

Should I take my medications the day of the test?

- **Avoid Medications with caffeine:** DO NOT take any over-the-counter medication that contains caffeine (such as Excedrin®, Anacin®, diet pills and No Doz®) for 24 hours before the test. Ask your physician, pharmacist or nurse if you have questions about other medications that may contain caffeine.
- **If you take heart medications:** DO NOT take the following heart medications **on the day of the test** unless your physician tells you otherwise, or unless it is needed to treat chest discomfort the day of the test:
 - o Isosorbide dinitrate (for example: Dilatrate®, Isordil®)
 - o Isosorbide mononitrate (for example: Imdur®, ISMO®, Monoket®)
 - o Nitroglycerin (for example: Minitran®, Nitropatches®, Nitrostat®)
 - o Dipyridamole (Persantine®): Stop taking 48 hours before the test.

What should I wear for the test?

Please wear comfortable clothes and shoes suitable for walking during the test.

How long will the test last?

The appointment will take about 2 to 3 hours. The actual exercise part of the test lasts about 7-12 minutes.