

# Radionuclide Ventriculogram (RNV)

## WHAT IS IT?

This test uses radioactively tagged red blood cells to track blood movement through the chambers of the heart to provide an accurate assessment of your heart's pumping function.

## Also Known As: Multiple Gated Acquisition (MUGA) Study

### A MORE DETAILED EXPLANATION

A radionuclide ventriculogram (RNV), sometimes referred to as a multiple gated acquisition (MUGA) study uses radioactively tagged red blood cells to track blood movement through the chambers of the heart. This test provides a very accurate and reproducible assessment of your heart's pumping function

### COMMON REASONS TO HAVE THIS TEST

- Quantify left ventricular ejection fraction (pumping capacity of your heart)
- Evaluate heart pumping function prior to and/or during chemotherapy

### PREPARING FOR THE TEST

No special preparation is required. You may eat and/or drink prior to having this test done. Continue to take your usual medications as prescribed. Because a few electrodes will be attached to your chest during the test, wear loose fitting clothing.

### THE TEST

A MUGA test can be performed in the hospital or in a physician's office. The protocol for the test may vary from center to center. What follows is a general description of what to expect. If you have questions about your examination, please contact your testing center.

The entire test will take approximately 60 minutes. You will remain in your regular clothes. An IV will be started in one of your arms and a small amount of your blood will be withdrawn and mixed with a small amount of radioactive solution.

After about 25 minutes this "tagged" blood will be re-injected back through the IV access and three electrodes will be attached to your chest to monitor your heart rhythm. You will then lie down on an imaging table, and a special camera (gamma camera) will be positioned close to your chest to take pictures of your heart while you lie still. This part takes about 20 minutes. After the pictures are acquired, the IV will be removed and you will be free to go home.

### IS IT SAFE?

A MUGA test is very safe. There are no reports of allergic reactions or side effects related to injection of tagged blood cells. The radiation exposure from the test is very small and not associated with any significant health risks.