



**Exam Duration:** Approximately 1 hour **IV Required?** Yes

**Exam Preparation:** No preparation required.  
Other nuclear exams performed within 2-3 days may interfere.

The RNVG (Resting Nuclear Ventriculogram, sometimes referred to as a MUGA) is a study performed on the heart to assess its functional output. This is done by determining the amount of blood pumped out to the body with each heartbeat. The RNVG is commonly used to assess cardiac function over time for patients undergoing certain types of chemotherapy or treatment for other conditions, though there are other indications for the exam as well.

**Exam Procedure:** The RNVG consists of two short visits to the nuclear medicine department. When you arrive, a technologist will go over your relevant medical history and start an IV in your arm. From here, there are two ways of performing the exam:

In the first method, the technologist will draw blood from your IV and tag that blood to a radioactive tracer. The tagging process takes approximately 25-30 minutes, after which you will be re-injected with your blood. Imaging takes place immediately after the injection: you will be positioned on an imaging table, flat on your back, with a camera on the left side of your chest. A 3-lead EKG will be attached to you for the five-minute image.

Alternatively, the technologist will give you an injection through your IV rather than draw blood; a second injection follows approximately 20-25 minutes later with images immediately following.

**Notes:** Wear comfortable clothing to your appointment. As the exam requires an IV, it is best to wear a shirt that allows easy access to the arms. You will not be required to change into a gown for this exam.

Patients who wish to use their port for the exam may do so; please tell the technologist at the beginning of your exam.

