

# MUGA STUDY – GATED BLOOD POOL STUDY HEART SCAN

## **Information for our Nuclear Medicine Patients:**

Inform your physician if you are pregnant or breast feeding.

## **What is Nuclear Medicine?**

Nuclear Medicine is a medical specialty which uses safe, painless and cost-effective techniques both to image the body and treat disease. Nuclear Medicine imaging is unique in that it documents organ function and structure in contrast to diagnostic radiology which is based on anatomy. Nuclear Medicine allows your physician to gather medical information which may otherwise be unavailable.

Nuclear Medicine uses very small amounts of radioactive materials, or radio-pharmaceuticals, to diagnose and treat disease. Radiopharmaceuticals are substances that are attracted to specific organs, bones or tissues. The radiopharmaceuticals used in Nuclear Medicine emit gamma rays which can be detected externally by special types of cameras called gamma cameras. These cameras work in conjunction with computers, and are used to create images which provide data and information about the area of the body being imaged.

## **MUGA Scan (Gated Blood Pool Imaging)/ Heart Scan:**

You have been scheduled for a MUGA Scan to examine how well your heart is functioning in terms of the strength of each heartbeat and the amount of blood being pumped with each heartbeat. The test uses a small amount of radioactive material. The level of radioactivity used is extremely low and has no side effects.

You will be positioned next to a special detector called a gamma camera. The camera does not produce any radiation. It will be placed close to the part of your body being imaged.

## **Patient Preparation:**

No patient preparation. We will need a list of all medications, prescription and over the counter drugs.

## **Procedure:**

You will receive two injections. One non radioactive, and one radioactive. This takes approximately 45 minutes. The camera will begin taking pictures of your heart while you lie still. Your electrocardiogram is also recorded. The pictures are displayed as a movie of your beating heart, and computer analysis provides the doctors with important information about the function of your heart.

The pictures take about 30-45 minutes. This is preceded by treating your blood so that some of your red blood cells are labeled with the radioactive tracer, which takes another 30 minutes. Total time is about 1 hour.

## **Appointment Information:**

**If you are unable to keep this appointment, please contact the Nuclear Medicine Department at 618-847-8221 or Radiology Department at 618-847-8249, at least 24 hours in advance of your appointment.**

Patient Name: \_\_\_\_\_ Appointment Date: \_\_\_\_\_ & Time: \_\_\_\_\_

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