

# Nuclear Medicine

## Patient Education & Preparation Instructions

You have been referred to Aspirus Riverview Hospital's Imaging Services Department for a nuclear medicine examination. All exams are interpreted by a radiologist, a physician who specializes in imaging diagnosis. The results are sent to your physician in writing, or in the case of an emergency, by telephone.

### What is a Nuclear Medicine Scan?

Nuclear medicine scans are painless procedures used to help diagnose diseases of the body. Patients are given a small, safe dose of radioactive material, usually an intravenous injection, but sometimes orally. The radioactive material, called a radiopharmaceutical, will travel through the bloodstream and localize to a specific organ. Once there, the radio-pharmaceutical emits gamma rays that are detected by a gamma camera. The gamma camera records the gamma rays in the form of images of body anatomy and function. Nuclear medicine scans **DO NOT** involve injecting any iodine-containing dyes.

### What will I Experience During the Procedure?

You will be given the radiopharmaceutical either by intravenous (IV) injection or orally. Depending on which type of scan is being performed, the imaging will be done either immediately or a few hours later. While the images are being obtained, you will be asked to lie down on a scanning table. A nuclear scanning camera will then be positioned to scan over the organ of interest. It is important that you remain as still as possible while pictures are being taken. To avoid appointment delays, pre-registration is required prior to your date of service.

### What are the Benefits vs. Risks?

#### Benefits:

- The functional information provided by nuclear medicine examinations is unique and unattainable by using other imaging procedures. For some diseases, nuclear medicine studies give the most useful information needed to make a diagnosis and to determine the appropriate treatment, if any.
- Allergic reaction to the radiopharmaceutical is extremely rare.
- Nuclear medicine scans pose no significant danger. You will receive a tiny amount of a radiopharmaceutical, which is eliminated from your body in one to two days. Generally, radiation exposure is similar to that from a standard x-ray.

#### Risks:

- Be sure to inform your physician if there is a chance of pregnancy. In general, exposure to radiation during pregnancy should be kept to a minimum.

### How Should I Prepare for the Procedure?

Please follow the preparation instructions for the examination indicated. It is important for you to be prompt for your appointment. If you have any questions, please call the Aspirus Riverview Hospital Imaging Services Department at 715-421-7430.

- **BONE SCAN** This examination evaluates bones for fracture, infection, arthritis or tumor. No preparation is necessary. You will receive an IV injection. Three hours later you will return for a 60-minute scan. You will be asked to drink water prior to the scan. Metallic objects will need to be removed before the scan (for example: watches, keys, belt buckles).
- **HEPATOBIILIARY SCAN (HIDA)** This examination gives information about the function of your gallbladder. **DO NOT eat or drink for six hours prior to the examination.** When necessary, take only small amounts of water as required for medications. You will receive an IV injection. The exam lasts approximately 1.5 to 2 hours. You may bring headphones to listen to during the scan.

- **MIRALUMA** This examination looks at breast tissue. No preparation is necessary. You will receive an IV injection in the arm. Scan time is 45 to 60 minutes.
- **THYROID SCAN** This examination checks thyroid size, shape and function. Certain medications may need to be discontinued. Call Aspirus Riverview Hospital's Imaging Services Department at 715-421-7430 if you are taking thyroid medications. You will be asked to swallow a radioactive iodine capsule in the morning, followed by an afternoon scan (five hours later) that takes 45 minutes. You will also need to return the following morning for a 15-minute scan.
- **MUGASCAN** This scan gives information about left ventricular heart function. There is no preparation for this examination. You will receive an IV injection, followed by a 25-minute waiting period before a 30-minute scan. Total time in our Imaging Services Department is approximately 60 to 75 minutes.
- **GASTRIC EMPTY SCAN** This examination gives information about the rate of stomach emptying. **DO NOT eat or drink for 8 hours prior to the examination.** You will be asked to eat a small meal provided in the department. The exam lasts approximately two hours.

Aspirus Riverview Hospital Imaging Services Department 715-421-7430

### **PRE-REGISTRATION REQUIRED**

**Stop by the Registration Department in Aspirus Riverview Hospital's Lobby Rotunda  
Monday-Thursday 8 am-5:30 pm; Friday 8 am-5 pm; Or call 715-421-7499**

*If you are unable to keep your appointment, please let Aspirus Riverview Hospital's Imaging Services Department know as soon as possible. Should you be admitted to the hospital, please inform your physician about your appointment.*



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