An octreotide study is a diagnostic nuclear medicine procedure. This handout explains how to prepare for the study, how it works, how it is done, what you may feel during the study, and how to get your results.

What is an octreotide study?
An octreotide study is done in Nuclear Medicine to diagnose tumors. It involves injecting a radioactive substance called a tracer into your vein. The tracer used for this study is called Indium-111 octreotide.

After it is injected, the tracer is taken up by somatostatin receptors in your body. Carcinoid tumors (malignant tumors, usually in the digestive tract), multiple myelomas (bone marrow tumors), and endocrine tumors (tumors in the glands) have a lot of these somatostatin receptors.

Next, a SPECT/CT gamma camera will be used to take images of your body. This is done 4 hours, 24 hours, and sometimes 48 hours after you receive the injection. The images show where the radiotracer was taken up. This allows your doctor to see the size and location of any tumors.

How do I prepare?
Before having this study done, you may need to stop taking some medicines and/or your somatostatin/octreotide therapy. Talk with your doctor for instructions.

You will also need to:

• **Drink plenty of fluids** throughout this study.

• **Take a mild laxative** the night before the injection and each night before imaging is done.
How is the study done?

- When you arrive, the technologist will review the procedure with you and tell your attending doctor that you are in the clinic.

- You will have an IV line placed. The radioactive tracer will be injected into a vein. The technologist will then remove the IV. After that, you may leave.

For Insulinoma Patients

- Your blood sugar level will be checked before the study begins.

- You will receive a sugar solution just before and while the radioactive tracer is given, to avoid a hypoglycemic (low blood sugar) reaction.

4 Hours Later

You will return about 4 hours later for images to be taken of your body. You will be scanned from head to toe. You will need to hold very still.

The imaging takes about 1 to 3 hours, depending on what images your doctor needs. The SPECT/CT gamma camera is very quiet.

The doctor may also ask for 3-D images to be taken, along with a low-dose CT scan.

24 Hours Later

You will return the next day (about 24 hours later) for more imaging. This session will last about 1 to 3 hours, depending on what images your doctor needs.

48 Hours Later

You may be asked to return for 1 more imaging session about 48 hours after the injection is given. This imaging session will also last about 1 to 3 hours, depending on what images your doctor needs.

What will I feel during the study?

- Most people feel normal during this study.

- Insulinoma patients may have a drop in blood sugar.

Who interprets the results and how do I get them?

When the test is over, the nuclear medicine doctor will review your images, prepare a written report, and talk with your doctor about the results.

After that, your doctor will talk with you about the results and your treatment options. Talk with your doctor to find out if you will need to restart any medicines that you stopped for this study.