Parathyroid Imaging

My doctor has ordered a test to look at my parathyroid gland. What should I expect?
At Rose Medical Center, we do two exams in conjunction with each other to look for abnormal parathyroid glands: a nuclear medicine scan and an ultrasound (also known as a sonogram).

What do I need to do to prepare for these exams?
We request that you have nothing to eat two (2) hours prior to your appointment. There is no other preparation required.

How long will these exams take?
This will be a long day and you should expect about seven (7) hours total from start to finish of both tests.

Why does the scan take so long?
We are using very low doses of radioactive material and the parathyroid glands are very small, therefore it takes a long time to collect enough data to compile an image.

What happens when I arrive at the Radiology Department?
You will be registered at the front desk. A technologist will then escort you to the nuclear medicine department where you will be given an iodine pill. This is a special type of iodine that will have a small amount of radioactive material that will emit gamma rays (similar to an X-ray). When the iodine collects in your thyroid, the gamma rays will allow the thyroid gland to be visible with a particular camera. The nuclear medicine technologist will also review any pertinent history with you at this time.

What happens after ingesting the iodine pill?
You will have two (2) hours of free time while the iodine absorbs into your thyroid. You are free to leave the hospital during this time. We ask that you do not eat during this two hour period but water is permitted.
When do I return to the hospital?
Two hours after ingesting the iodine pill, you'll return to the nuclear medicine department. You will receive a small injection through an IV in your arm or hand that will contain another radioactive material that will travel to both your parathyroid and thyroid. You will lie down on a table with a camera over your neck for about 45 minutes of imaging.

When is the next imaging portion?
Following the first set of images, you will now have a three-hour break. Again, you are welcome to leave the hospital during this time. After three hours, you’ll return again to the nuclear medicine department for a second 45-minute scan similar to the first exam.

When will I have the ultrasound?
Once the second nuclear medicine scan is complete the nuclear medicine technologist will take you to meet the ultrasound technologist. The ultrasound should take 30-to-60 minutes.

Why do I need two different radiology imaging exams?
These two exams compliment each other. We like to try to see the abnormal parathyroid on both exams but often it is only identified on one test.

Are these examinations considered dangerous to me?
These examinations are very safe. The nuclear medicine examination does use radiation but it is at very low dose and is safe to you and your family. As with all radiation, we try to limit its use so that we only use it when necessary. All radiation carries with it a very low increased risk of malignancy.

How will the radioactive dye get out of my thyroid and parathyroid?
The radioisotopes decay naturally and will stop emitting gamma rays within a short period of time after the examination.
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Who will interpret my imaging results?
Your results will be reviewed and interpreted by a board-certified physician who specializes in diagnostic radiology and subspecializes in imaging of the thyroid and parathyroid glands.

When will my doctor have the results?
Within 24 hours of the end of your examination and often before.

What post-exam instructions are there?
You may resume normal activities and diet immediately following the completion of all of your imaging scans.