Important Information Regarding Your Adenosine Nuclear Test

Your Physician has ordered an adenosine nuclear test in order to evaluate your heart's blood supply. The adenosine is given to expand (dilate) your heart's arteries. Adenosine causes normal arteries to dilate more than diseased and obstructed arteries, and thus divert more of the nuclear material to heart muscle supplied by normal arteries. The difference between normal and abnormal supplied heart muscle is identified by taking a picture of your heart.

Why Are Adenosine Tests Commonly Ordered?

1. To determine whether the symptoms you are having are due to any heart condition (symptoms such as: chest pain, palpitations, shortness of breath, dizziness, excessive tiredness)
2. To see if a person without symptoms has silent heart disease, i.e. blockages or coronary heart disease
3. To determine the risk of future heart problems in patients with known heart disease
4. Evaluate effectiveness of surgical procedure, angioplasty, or medical therapy
5. Pre-operative clearance
6. If you have a pacemaker, or certain EKG abnormalities

Preparation For The Test: (Your test will take an average of 3 hours)

Important: If you are pregnant, or suspect that you are pregnant, or are breastfeeding; discuss this with your doctor before undergoing this procedure.

- Do not eat, drink or smoke for **4 hours** before your test. You may have water.
- Do not eat or drink caffeinated foods or beverages for **24 hours** before your test. Caffeine can be found in coffee, tea, chocolate, soft drinks cold and certain migraine preparations. *Note:* **Decaffeinated products also contain small amounts of caffeine and may NOT be consumed.**
- Wear comfortable loose fitting clothing. It is helpful to wear a short sleeved shirt that buttons in the front. **Do not wear shirts or blouses with beads or metal studs,** as it will interfere with the pictures.
- Do not apply lotions, oils or powders to the chest area.
- Medication: Take your medications (with sips of water) unless you have been otherwise instructed
- Do not consume alcohol, take tranquilizers or sedatives for at least **4 hours** before the test

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What Will Happen To Me During The Test?

The nuclear test allows your doctor to see pictures of your heart when your heart is at rest and following the adenosine. To create those pictures you will receive 2 injections of a small amount of radioactive material. The level of radioactivity used is extremely small (comparable to chest x-ray). An intravenous line (IV) will be placed in your arm before the first injection of Thallium, and will be used later during the stress test for the injection of adenosine and Cardiolite. Following the first injection, you will be under a gamma camera and pictures of your heart will be recorded. The camera does not produce any radiation. It will be placed close to your chest and pictures will be taken for approximately 20 minutes. This portion of the test is called the "rest study". Following your rest study, our trained staff will place electrodes on your chest that will constantly monitor your heart during the test. Your blood pressure will also be monitored.

The physician will administer the adenosine through an IV pump. During the test you are constantly monitored. The actual adenosine portion takes approximately 10 – 15 minutes, however the preparation takes longer (up to 30 minutes). Before the end of the adenosine, a second injection (Cardiolite) will be administered. This radiopharmaceutical is taken up by your heart muscle and can be visualized by the gamma camera in the same manner as the rest study. The imaging portion of your "stress study" will take approximately 30 minutes.

What Happens After The Test?

When the test is over, you may eat or drink and return to your normal routine. You may resume your normal medications. The images will be reviewed by one of our Nuclear Cardiologists and your AICD Cardiologist and results will be sent to your primary care Physician. You will be notified of the results within 1 week of the test.