



MRI Adenosine Stress Test Information

Your doctor has requested that you have a cardiac stress MRI. This exam is used to diagnose coronary artery disease (CAD), evaluate the extent of known CAD prior to angioplasty/stenting or bypass surgery, or to provide cardiac clearance prior to other surgeries.

What is an MRI Stress Test?

This test examines the blood flow to the heart when it is being stressed, and when it is at rest. The "stress" portion of the test involves the administration of adenosine, which is found naturally in our bodies. When given in sufficient amounts, it can mimic symptoms of exercise and is used to dilate the coronary arteries. When used in conjunction with gadolinium, an MRI contrast agent, we are able to visualize parts of the heart muscle not receiving an adequate blood supply. The "rest" component of the test is carried out afterwards, without adenosine, and is used for direct comparison with the stress images.

How should I prepare for this MRI?

- o **No caffeine for 24 hours prior to exam.** This includes coffee, tea, decaffeinated products, energy drinks, sodas, chocolate, or medications containing caffeine (migraine medications). *Please know that having caffeine will result in cancellation of your test!*
- o **No food 4 hours prior to exam.**
- o **Water is okay to drink!** Please stay well-hydrated with fluids.
- o **Do not take medications containing Theophylline for 48 hours.** This includes Aminophylline, Persantine, Pentoxifylline, Trental, Aggrenox, or Dypridomole.
- o **Are you claustrophobic?** Bring your sedative with you, and do not take it until a nurse at your appointment tells you to. You will need a friend or family member to drive you home after your MRI.

What should I expect the day of my test?

Please check in at the Lower Level of the Alaska Heart Institute at your scheduled appointment time.

BEFORE THE SCAN: An MRI technologist will do a routine safety screening, and then you will then be asked to change into a gown. For comfort, you can bring a pair of sweatpants or any other metal-free bottoms to wear as well. A preliminary EKG will be obtained, and an IV line will be placed in each arm.

DURING THE SCAN: For the actual scan, you will have to lay still on your back on the MRI table for about an hour. Your choice in music will also be played for you over the set of headphones you will be wearing. Heart monitors will be attached to your chest area, along with a large pad. You will have to follow along with breath hold instructions for your test, which will be given to you by the MRI technologist. Keep in mind that you will have full communication with the person conducting your scan. While the scanner is taking your pictures, you will hear rapidly repeating, loud thumping noises coming from the walls of the MRI tunnel. The test will start off with



20 minutes of preliminary images, which will then be followed by the adenosine infusion images. This medication will slightly increase the workload of your heart, similar to exercising. You will start feeling symptoms from the adenosine after about a minute from the start of infusion. Shortness of breath, flushing of the face, and/or chest pressure are common symptoms that are caused by this medication. You will be slid back into the MRI machine for about one minute of picture-taking, during which the medication will get turned off. These symptoms will only linger for a few minutes. The stress portion of your test will be monitored by a nurse as well as an exercise physiologist. More breath-hold images will be acquired following this portion of your scan.

AFTER THE SCAN: A post-EKG will be acquired after you are done with your test. You won't have any restrictions following your MRI and you may resume your normal daily activities, unless you took a sedative.

Date of test: _____

Time of test: _____

Location of test:

3841 Piper St. Suite TLL-10, Anchorage AK
3125 E Meridian Park Loop, Wasilla AK

___ LOWER LEVEL NEAR ELEVATORS
___ FIRST FLOOR

It is important that you arrive in a timely fashion and prepared for your test. Tardiness may result in rescheduling so that other patients are not inconvenienced. If you request or your insurance requires you to have testing at another facility, we would be happy to help arrange this test at your preferred provider's location.