

Procedures/Risks: cardiology_template

Electrocardiogram (ECG):

Procedure: An electrocardiogram (ECG) is a tracing of the electrical activity of your heart. Your chest may need to be shaved in order to place the electrodes that are to be attached to your chest. From the electrodes and the ECG machine the frequency and rate of the beats of your heart can be measured.

An ECG (electrocardiogram) will be performed to measure heart function. This test involves having 12 electrodes taped to the skin of your chest.

Risk: You may feel some discomfort while undergoing electrocardiogram (ECG). During this test that measures the electrical activity of your heart, the study nurse will put patches on your skin. These patches might cause: irritation, redness and itchiness.

The ECG procedure may cause mild discomfort during the attachment of and removal of the ECG from the skin of your chest area. The ECG leads may cause skin irritation.

Echocardiogram:

Procedure: This test is an ultrasound image of the heart. The purpose is to visualize and measure the functions of the heart muscle and valves. You will lie on a stretcher and a small handheld device will be moved around your chest to obtain the images of your heart. This procedure will take approximately one hour.

Risk: You should not experience any pain from the echocardiogram. Gel is put on your chest for the ultrasound. It may feel cool. The handheld ultrasound device is pressed firmly against your chest, but should not cause pain. You will not hear or feel the sound waves. You may feel uncomfortable from lying still or from the transducer pressing on your chest. This procedure may last up to one hour.

MRI (cardiac):

Procedure: You will undergo a cardiac magnetic resonance imaging scan (CMR), also known as heart MRI. Instead of using radiation (x rays), MRI uses a powerful magnetic field (1.5 Tesla) and radio frequency waves. Many changes in tissue can be evaluated by MRI. The result is an image that looks like the body's anatomy, for the specifics of this study, the image will look at your heart. Since different tissues (arteries, muscle, etc.) have different magnetic properties, they will appear different on MRI images resulting in very clear pictures of the heart and heart arteries. You will be asked to remove all metal objects. You may be asked to remove clothing and put on a hospital gown. An intravenous catheter (IV) will be placed in your arm or hand vein to deliver contrast material and/or medication during the scan. You will lie on a flat table

that slides into a round, full body clinical MRI scanner. For this study, a contrast agent (material used to make tissue more visible, sometimes referred to dye) will be used in addition to routine cardiac MRI techniques.

Risk: (see Magnetic Resonance Imaging)

There is very small chance that you may have an allergic reaction to the contrast agent (gadolinium) that will be administered through the IV [for the CMR exam]. Other risks include headache, nausea, local pain, or hypotension (low blood pressure). Only about 3 out of 10,000 people experience any type of reaction to the [CMR] contrast agent. Severe allergy-like reaction, if not treated, may result in death.

The MRI facility is equipped with all the necessary equipment and personnel to handle this situation, if it should it arise. If you have a contrast allergy or any other factors that would prohibit you from safely and effectively participating in this study, you will not be enrolled. You will be monitored at all times by a nurse, physician and technologist during the administration of medications. The staff have immediate access to the emergency equipment should the need arise.

Ultrasound (carotid):

Procedure: You will be asked to have an ultrasound procedure done to examine your carotid arteries as part of the study. The carotid arteries are located in your neck and supply your brain with blood. You will be asked to lie flat on a special table. Using a small probe placed directly over your arteries sound waves are reflected from the arteries. From these sound waves an image will be generated on a screen which will allow us to see the structure of the carotid arteries.

Risk: Possible discomforts associated with carotid ultrasound include pressure from the probe in the neck area.