

Coronary CTA

What is Coronary CT Angiography used to diagnose?

Coronary Artery Disease is the single leading cause of death in the United States. Of the 1.2 million Americans who have heart attacks every year, approximately 150,000 of them die without showing any symptoms. With the advancement of CT scanners, this technology is being used to identify and diagnose diseases and conditions affecting the flow of blood in arteries supplying the heart. Compared to traditional catheter angiography, CTA is much less invasive, more patient-friendly and in many cases presents a cost effective alternative that delivers better detail and more information.

What is Coronary CT Angiography?

Coronary CT Angiography is a minimally invasive diagnostic imaging procedure that uses an ultra-fast state-of-the-art CT scanner to provide high-speed x-ray images of your body to yield detailed images of the blood flowing through the coronary arteries. When the CT scanner completes its programmed scan, a powerful computer takes the digitally stored data from the images and reconstructs them in 3D. This allows the radiologist to view your anatomy from any angle without having the image blocked by intervening structures. The images presented provide extremely accurate information for the radiologist to make a diagnosis so your cardiologist and or physician can treat you.

Is Coronary CT Angiography right for me?

Your physician or cardiologist determines if coronary CTA is appropriate for your condition. If you have symptoms such as shortness of breath or chest pain indicating the possibility of coronary artery disease, you may be a candidate for the exam. Additionally, there are many people who do not outwardly show any symptoms but have associated risk factors such as high blood pressure, diabetes, high cholesterol, overweight, smoking or lead a sedentary lifestyle which may make them a candidate for the examination. Discuss this with your physician.

Is Coronary CT Angiography Safe?

Not only is this technique invaluable for delineation of the blood vessels of the heart, it is also relatively safe, convenient and much less invasive than traditional in hospital angiography.. In many cases, CT angiography may eliminate the need for surgery. If you have allergies to contrast material, notify your physician and this office.

How should I prepare for this procedure? Wear comfortable, loose-fitting clothing. You may be given a gown to wear during the procedure. Metal objects such as jewelry should not be worn since they could negatively affect the CT images. You may be asked not to eat or drink anything for several hours before the exam. You should inform your technologist or physician of any medications you are taking and whether or not you have any allergies, especially to contrast materials. You should also tell your technologist or physician of any recent illnesses, if you are pregnant or have other medical conditions such as a history of heart disease, asthma, diabetes, and kidney disease or thyroid problems.

How is the procedure performed?

A nurse technologist will insert an intravenous (IV) line into a vein in your arm to administer contrast material (dye) during your procedure. You also may be given beta blocker medication through the same IV line or orally and you may be given nitroglycerin orally, which will dilate your vessels for better visualization of the coronary

arteries. You will lie on a special scanning table. The technologist will clean three small areas of your chest and place small, sticky electrode patches on these areas. Men can expect to have their chest partially shaved to help the electrodes stick. The electrodes are attached to an electrocardiograph (ECG) monitor, which charts your heart's electrical activity during the test. While lying on the scanning table, you may be asked to raise your arms over your head for the duration of the exam. You may be asked to hold your breath during the scanning.

Breathing during the scan creates artifacts on the images.

When the examination is completed, you will be asked to wait until the technologist verifies that the images are of high enough quality for accurate interpretation.

Including all preparations, the coronary CTA scan takes about 15 minutes..

What will I experience during and after the procedure?

Most CT exams are painless, fast and easy. With coronary CTA, the amount of time that the patient needs to lie still is reduced. If an intravenous contrast material is used, you will feel a slight pin prick when the needle is inserted into your vein. You may have a warm, flushed sensation during the injection of the contrast materials and a metallic taste in your mouth that lasts for a few minutes. If you have allergies to contrast material, notify your physician and this office. The medication given to slow the heart rate has been known to cause some patients to feel dizzy when they stand suddenly. The dizziness is slight and only happens rarely. You will be alone in the exam room during the CT scan, however, the technologist will be able to see, hear and speak with you at all times.

After a CT exam, you can return to your normal activities. If you received contrast material, you may be given special instructions.

For more information on this topic, please visit www.Radiologyinfo.org.

Procedure Instructions

<http://www.radiologyinfo.org/en/info.cfm?PG=angioCoroCT>

Download Instructions [PDF]

[[to top](#)]