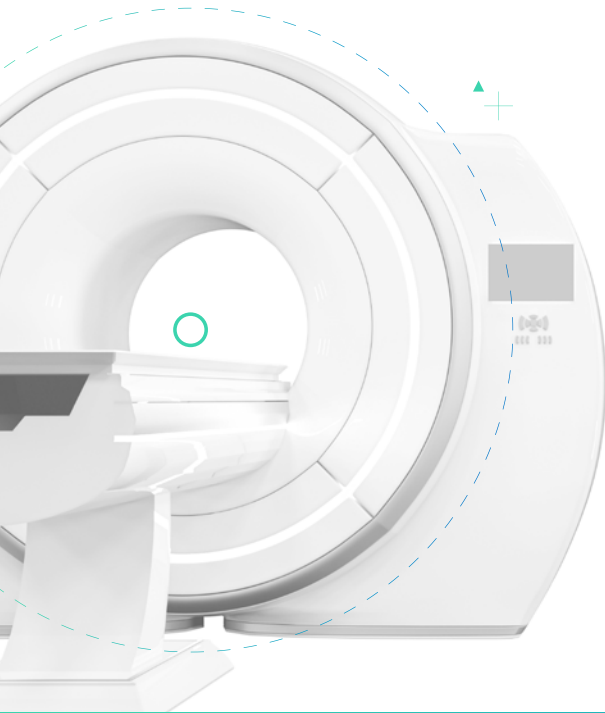


What to Expect: CCTA + Cleerly



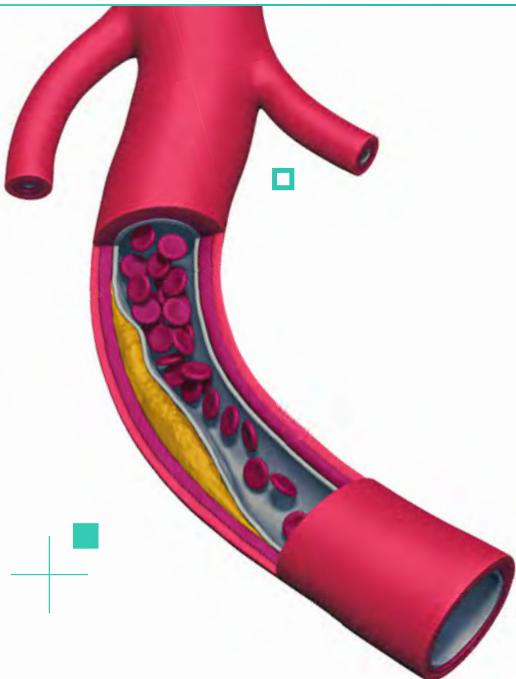
What is a CCTA exam?

Coronary computed tomography angiography (CCTA) is a heart specific diagnostic imaging test that helps determine if plaque buildup is present in the coronary arteries, the blood vessels that supply the heart. Computed tomography is more commonly known as a CT scan. A CT scan generates images that can be reformatted in multiple planes and can even generate three-dimensional images. Patients undergoing a CCTA scan receive an iodine-containing contrast material as an intravenous (IV) injection to ensure the best possible images of the heart blood vessels.



What is Cleerly?

The Cleerly coronary analysis is a thorough evaluation of the presence, amount, and type of plaque in the heart's arteries based on a CCTA study. Images captured in the CCTA exam are processed by Cleerly software - a set of artificial intelligence based algorithms - and translated into measurements and reports for review by the patient's physician. The results of the Cleerly analysis give a patient and their physician a comprehensive understanding of the patient's current state of disease for reference in the patient's ongoing heart health and treatment.



What is plaque and why does it matter?

Plaque is the physical representation of a disease called Atherosclerosis. It is made of various substances such as fat, cholesterol and calcium that deposit along the inner lining of the arteries. Plaque, which builds up over time, can reduce or in some cases completely block blood flow. The presence and type of plaque in the coronary arteries has proven to be the greatest predictor of an impending cardiac event.

Stabilizing high-risk plaques has been achieved with lifestyle changes and medical therapy through the transformation of non-calcified high-risk plaques to calcified low-risk plaques. This transformation of plaques has been shown to be associated with reduced rates of major adverse cardiovascular events.

How does the procedure work?

During the exam, x-rays pass through the body and are picked up by special detectors in the scanner. The information collected during the CCTA exam is used to identify the coronary artery anatomy, plaque, narrowing of the vessel, and, in certain cases, heart function.

What is contrast and how is it used?

Patients undergoing a CCTA scan receive an iodine-containing contrast material as an intravenous (IV) injection to ensure the best possible images of the heart blood vessels. The contrast material is used to clearly define the blood vessels being examined by making them appear bright white.

What will I experience during and after the exam?

While the CT scan itself only takes a few minutes to perform, you may be at the imaging center or hospital for up to an hour. You will have your blood pressure taken before, during, and after the examination.

Depending on your heart rate, a medication may be given prior to the scan to slow your heart rate which makes the CT images sharper and a second medication will be given that slightly dilates your arteries for better image quality. A nurse or technologist will insert an IV line into a vein in your arm to administer contrast material during your procedure. While lying on the scanning table, you may be asked to raise your arms over your head for the duration of the exam. This will help improve image quality. During this time, you may hear slight buzzing, clicking and whirring sounds. The technologist may ask you to hold your breath during portions of the scanning.

After a CT exam, you may return to your normal activities immediately.

For more information, please visit radiologyinfo.org/en/info/angiocoroct and clearlyhealth.com.

