

For Our PATIENTS

U C L A Healthcare

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Coronary Computed Tomography Angiography (Coronary CTA)

A Coronary Computed Tomography Angiography (CTA) is a non-invasive technique that examines the heart and coronary arteries to detect coronary artery disease.

How does CTA work?

A Coronary CTA is a special type of cross-sectional X-ray examination. Patients undergoing a Coronary CTA receive an injection of special dye that allows radiologists to see images of the arteries.

During the examination, which usually takes about 10-15 minutes, X-rays pass through the body and are picked up by special detectors in the scanner. Typically, higher numbers (especially 16 or more) of these detectors result in better image quality. For that reason, Coronary CTA often is referred to as “multi-detector” or “multi-slice” CT scanning.

Who should consider Coronary CTA?

Patients, in consultation with their primary physician, decide whether they should consider a Coronary CTA. In general, coronary CTA can non-invasively exclude narrowing of the arteries as the cause of chest discomfort and detect other possible causes of symptoms.

Coronary CTA, like invasive coronary angiography, carries some risk from X-ray exposure and contrast dye exposure (allergic reactions or kidney damage, for example.)

Who should not have Coronary CTA?

Coronary CTA may be of limited use in patients with extensive areas of old, calcified or hardened plaque. Patients who are extremely overweight (450 pounds) tend to be unsuitable candidates for this test, as this condition may compromise image quality.

What type of CT scanner is used at UCLA Medical Center Department of Radiology?

UCLA Radiology currently uses a dual source 64-detector scanner, the only such scanner on the west coast and one of only a few in the U.S. With this new technology, patient preparation with beta blockers to lower or stabilize the heart rate is no longer necessary.

What is the procedure for getting a Coronary CTA examination at UCLA?

1. Patients may choose to schedule an appointment with a UCLA cardiologist to determine the appropriateness and safety of Coronary CTA. Patients may call the UCLA Physician Referral Center at 1-800-825-2631.
2. Once Coronary CTA is deemed appropriate and safe for a patient, the examination may be scheduled by the patient or referring physician. Referrals can be faxed to (310) 794-9035 or call (310) 301-6800.

What to expect – the day of your appointment:

- You will change into a hospital gown.
- Prior to the scan, nitroglycerine spray will be administered under the tongue.
- An intravenous (IV) catheter will be inserted into a vein in your arm, used for contrast (dye) administration during your procedure.
- The technologist will clean three small areas of your chest and place small, sticky electrode patches on these areas. (Men may expect to have their chest partially shaved to help the electrodes stick). The electrodes are attached to an electrocardiograph (ECG) monitor, which charts the heart's electrical activity during the test.
- You will lie on the scanner table, and will be asked to raise your arms over your head for the duration of the exam.
- During the scan, you will feel the table move inside a donut-shaped scanner.
- Once the technologist is sure that all the information is collected, the IV will be removed.
- The CT scan takes about 15 minutes.

After the procedure:

- You may continue all normal activities and eat as usual after the test.
- Your physician will discuss the results of your test with you.