

# Caldwell Medical Center

## Patient Information

### Computerized Tomography (CT) Coronary Angiogram (CTA)

Computerized Tomography (CT) Coronary Angiogram (CTA) is an imaging test that looks at your arteries that supply blood to the heart. It might be done to diagnosis the cause of chest pain or other symptoms.

A CT coronary angiogram uses a powerful X-ray machine to produce images of your heart and its blood vessels. The procedure is noninvasive and doesn't require recovery time. CT coronary angiogram is used to diagnose a variety of heart conditions.

#### Why did your provider order coronary CT angiogram?

A CTA is used to check for narrowed or blocked arteries in your heart (coronary artery disease) and other various heart conditions. CTA uses a small amount of intravenous contrast (contrast dye) to obtain high resolution 3 dimensional pictures of the moving heart including coronary arteries and the great vessels.

Cardiac CT angiogram is the **most accurate noninvasive method** of detecting blockages in the heart and for identification of buildup of plaque and calcium in and around the arteries of the heart that can result in heart attacks.

#### Who should consider coronary CT angiogram?

Your provider has ordered a coronary CT angiogram since you have had symptoms that are suspicious of cardiac origin.

If your provider suspects a low to intermediate risk of you having blockages in your heart then CTA is an appropriate indication.

Unclear or inconclusive stress test is another category where coronary CT angiogram is immensely helpful.

#### What is the risk of a cardiac CT scan?

Coronary CT angiogram is a safe test and carries very few risks. The risks are similar to any other CT scan where intravenous CT scan dye is administered.

It's possible that you can have an allergic reaction to the dye used in the procedure. Talk to your doctor if you're concerned about having an allergic reaction. *If your allergic to contrast material, you will be given medication to lower your risk of a reaction.*

You'll be exposed to some radiation during the test. The amount varies depending on the type of machine used. The risk of developing cancer from a CT angiogram isn't known, but its small. You should not have a CT angiogram if you are pregnant because of possible harm to your unborn child.

Caldwell Medical Center is pleased to announce we have received our new CT scanner. It is designed to minimize exposure to radiation and is used in many university teaching hospitals across the United States.

The new equipment uses an advanced 160 slice state-of-the-art Cannon CT scanner for providing superior images and uses the smallest commercially available detector and advanced software for processing images for interpretation.



## HOW YOU PREPARE

- **Food and medications**
  - You may eat a light meal prior to this procedure.
  - Avoid all caffeinated drinks, chocolate, and energy drinks 12 hours before your test because they will increase your heartrate. Increased heartrate makes it more difficult to get clear pictures of your heart.
  - No smoking 12 hours before your procedure.
  - Tell your doctor about the medications you take. You may be asked to temporally stop a medication prior to your test.
    - If you are on **Metformin**, DO NOT take 48 hours before your CTA procedure AND 48 hours after the procedure.
    - Do not take any medications for **erectile dysfunction** for 72 hours **before or after** cardiac CT angiogram.
  - If you are allergic to contrast dye or shell fish, your doctor will order a medication prior to your procedure to reduce your risk of a reaction. The medication will be called in to your pharmacy the day before your procedure and you will need to take as directed. We need to know this in advance to ensure you receive and take the ordered medication.
- **Clothing and personal items**
  - You will need to remove clothing above the waist, as well as, jewelry and glasses. You will be asked to wear a hospital gown.

## What you can expect

- **Prior to your CTA, blood test will be performed to establish that your kidney functions are adequate for you to get CT scan dye.** Normal kidney function lowers the risk of damage to the kidneys.

- **Before the procedure**
  - The nurse will start an IV.
  - You may receive a medication by mouth or IV, called a beta blocker, commonly Metoprolol, to slow your heart rate. The goal is to decrease your heartrate to 65 or below. Slowing your heartrate allows for clearer images of your heart. *Let the staff know if you have had side effects from beta blockers in the past.*
  - When indicated, sublingual nitroglycerin is given to dilate the vessels of your heart to enhance the quality of the images.
  - The CT scan may be done using a contrast agent, a dye to help your blood vessels show up more clearly. *If your allergic to contrast material, you will be given medication to lower your risk of a reaction. The staff will need to know this in advance.*
- **During the procedure**
  - Sticky electrodes will be attached to your upper and lower chest for monitoring your heart rate during the procedure.
  - You will lie on a long table that moves through a donut type scanner. If you are uncomfortable in close spaces, ask your doctor if you need a medication to help you relax.
  - During the scan you will need to stay still and do a series of short breath holds when directed. Movement can cause blurry images.
  - A technician and a nurse will be in a joining room separated by glass. An intercom system allows you and the staff to communicate, and you are monitored throughout the procedure.
  - Although the actual scanning time in is just a few minutes, the whole process may take up to an hour.
- **After the procedure**
  - You will return to the holding area with your nurse and monitored for approximately 30 more minutes; you will be discharged if you are not experiencing any unusual side effects.

## Results

- Your cardiac CT results will be read and sent to your provider.
- If you are a patient of Caldwell Cardiology, you will be given a follow-up appointment to review your results with a clinician.
- Contact Caldwell Cardiology if you need to make changes to your appointment time or you are unable to keep your appointment.
  - [Cardiology Scheduling 270.365.0308](tel:270.365.0308)

