



# Coronary Computed Tomography Angiogram (Coronary CTA)

*How to prepare for your exam*

**A coronary CTA (also called CT coronary angiography) is a study of the inside of your tiny heart vessels that's done without going inside your heart. Read this handout to learn how to prepare for the exam, how the exam works, how the exam is performed, what you will feel during the exam, and how to get results.**

## **What is a coronary CTA?**

There is now a way to study the inside of your tiny heart vessels without going inside your heart. This new procedure is called a coronary CTA. It is made possible because our new super-fast computer tomography (CT) scanner can scan the entire heart during 5 heartbeats.

## **How does the exam work?**

Using an IV (intravenous line), a radiologist and technologist inject a non-toxic contrast into your vein. The CT scanner, which is monitoring your pulse rate, measures when the contrast will reach your heart vessels. When the contrast is in the heart vessels, the CT scanner takes thousands of pictures of your heart. The scanner then puts the pictures back together to form a picture of your heart.

However, this final picture is not like a normal snapshot. This picture can be broken down to show only the arteries, muscle, or veins. This reconstruction allows the radiologist to see if you have a blockage of an artery that is causing you to have a heart attack. In a matter of minutes, you can know if your chest pain is a heart attack or indigestion. In fact, because the coronary CTA scans your entire chest, the test can be used to check for several different problems.

**In a matter of minutes, you can know if your chest pain is a heart attack or indigestion.**

## **How should I prepare for the exam?**

Preparation for the procedure depends on your symptoms when you arrive for your exam.

### **If you are having chest pain, call 911 and go to the UWMC Emergency Center.**

If you have had symptoms in the past and are coming to UW Imaging Services for a coronary CTA as a normally scheduled procedure, follow these instructions:

- Avoid any caffeinated drinks on the day before or the day of your exam, including coffee, tea, energy drinks, or caffeinated sodas.
- Avoid energy or diet pills on the day before or the day of your exam.
- Do not use Viagra or any similar medication on the day before or the day of your exam. It is not compatible with the medications you will receive during the procedure.
- On the day of your exam, do not eat for 4 hours prior to the procedure.
- Arrive in Imaging Services 1 hour before the time of your exam.

## **How is the exam performed?**

1. You will be greeted by a UWMC staff member. A nurse will be assigned to your care.
2. The nurse will establish an IV and prepare you for the exam. You will be given medication that will slightly slow your heart rate.
3. You then will be taken to the CT room. You will be connected to a heart monitor and you will lie on the CT table. The CT table moves you in and out of the scanner as the exam is performed.
4. The CT scan requires the use of contrast material to enhance the visibility of certain tissues. Soon after the injection of the contrast, the scan will start.
5. During the scan, you will be asked to hold your breath for about 20 seconds. After that, you will be moved out of the CT room and observed for a few minutes. If you have ever had a CT scan, you will be surprised how much like a normal CT scan this exam seems. In fact, the only difference is the speed of the scanner and the heart monitor hook-up.

## Questions?

Call 206-598-6200

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Clinic staff are also available to help at any time.

Imaging Services:  
206-598-6200

---

---

---

---

### What will I feel during the exam?

- During the injection of contrast, you may feel a warm, flushed sensation. This feeling is normal for any contrast injection.
- The medication given to slow the heart rate has been known to cause some people to feel dizzy when they stand suddenly. The dizziness is slight and only happens rarely.

### Who interprets the results and how do I get them?

If you are actively having chest pain, your results will be given to the emergency room doctor, and a preliminary result will be reported right away. If you are a routine scheduled patient, the final results will be called to your primary doctor, who will go over the results at your next office visit. The radiologist will not go over the results with you.

### How can I find out more information?

Because this is such a new exam, the written information you will find is minimal. You can find more information on the Internet by searching for “contrast enhanced MDCT cardiac imaging.” MDCT stands for *multi-detector computed tomography*.

UNIVERSITY OF WASHINGTON  
**MEDICAL CENTER**  
UW Medicine

Imaging Services  
Box 357115  
1959 N.E. Pacific St. Seattle, WA 98195  
206-598-6200