Coronary Computed Tomography Angiogram (Coronary CTA)

How to prepare for your exam

What is a coronary CTA?

In a coronary computed tomography angiogram (coronary CTA), the inside of tiny heart vessels in your heart is examined without putting anything in your heart. It is called a noninvasive procedure for this reason. The computed tomography (CT) scanner at University of Washington Medical Center (UWMC) can scan the entire heart in just 5 heartbeats.

How does the exam work?

Using an intravenous line (IV), your radiologist and technologist will inject contrast material (dye) into your vein. The contrast material makes it easier for your radiologist to see certain tissues.

The CT scanner monitors your pulse, and it will measure when the contrast reaches the blood vessels of your heart. When the contrast is in these blood vessels, the CT scanner will take thousands of pictures of parts of your heart. The scanner puts these pictures together to form 1 picture of your heart.

But, this picture is not like a normal snapshot. It can be broken down to show only the arteries, muscle, or veins. This allows your radiologist to see if one of your arteries is blocked and causing you to have a heart attack. In just minutes, you can know if a heart attack or indigestion is causing your chest pain.

And, because the coronary CTA scans your entire chest, this test can be used to check for other problems, too.
How should I prepare for the exam?

How you prepare for the exam depends on your symptoms when you arrive at the hospital.

If you are having chest pain, call 9-1-1 and ask to be taken to the UWMC Emergency Department.

If you have had symptoms in the past and are coming to UWMC Imaging Services for a coronary CTA as a normally scheduled procedure:

- Do not drink anything that contains caffeine on the day before or the day of your exam. This includes coffee, some tea, energy drinks, or caffeinated sodas.
- Do not take energy pills or diet pills on the day before or the day of your exam.
- On the day of your exam, do not eat for 4 hours before your exam. You may drink clear liquids that do not contain caffeine during this time.
- Plan to arrive at Imaging Services 1 hour before your exam is scheduled to start.
- *For men:* Do not use Viagra, Levitra, or Cialis, or any similar medicine on the day before or the day of your exam. These drugs would affect how your body reacts to the medicine you will receive during your exam.

How is the exam done?

1. A UWMC staff member will check you in at the front desk. A nurse will be assigned to your care.
2. The nurse will start your IV and prepare you for your exam. You will be given medicine that will slow your heart rate slightly.
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.
4. The contrast material will be injected through your IV. Soon after this injection, the scan will start.
5. The CT table moves you in and out of the scanner as the exam is done.
6. During the scan, you will be asked to hold your breath for about 20 seconds.
7. After the scan, 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 regular CT scan this exam is. The only difference is the speed of the scanner and having the heart-monitor hook-up for this exam.

**What will I feel during the exam?**

- When the contrast is injected, you may have a warm, flushed feeling. This is normal.
- The medicine you receive to slow your heart rate can make some people feel dizzy when they stand suddenly. The dizziness is slight and happens only rarely.

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

If you are having chest pain when you arrive, your results will be given to the emergency room doctor. You will receive these results right away.

If you are a scheduled patient, your final results will go to your primary health care provider. The radiologist will not go over your results with you. Your own provider will go over the results with you at your next office visit.