

Coronary CT Angiogram

What is a coronary CT angiogram?

Coronary CT (computed tomography)

angiogram is an imaging test. Doctors often recommend a CT angiogram to check for narrow or blocked arteries in your heart.

During a coronary CT angiogram, specialized x-ray equipment is used to take many images from different angles by rotating an x-ray tube around your body. A computer then uses the information to create detailed images. The images look like thin cross-sections (“slices”) of the area being studied.

This test uses **contrast**, a fluid that is injected into a vein, to highlight your arteries in the images.

What happens before the test?

When you arrive at the hospital or clinic for the test:

- 1 You will check in and put on a hospital gown.** A technologist or nurse will place electrodes (sensors that connect to a machine) on your chest. These help monitor your heart’s activity during the test.
- 2 A technologist will place an IV** [eye-VEE] in your wrist or arm. An IV, or intravenous line, is a small flexible tube that is inserted into a vein to deliver medication or contrast.
- 3 You might receive a dose of beta blocker medication** to slow your heart rate.
- 4 You will lie down on an exam table** that can slide into the opening in the middle of the CT machine. You’ll rest your arms over your head during the test.

How do I prepare for the test?

Tell your doctor about:

- **Any allergies**, especially if you’ve had a reaction to contrast in the past.
- **Any medical conditions** you have, especially asthma, kidney problems, or heart failure.
- **All medications you use**, including vitamin or herbal supplements, inhalers, patches, or injections.

Also, tell your doctor if you are pregnant or may be pregnant. The x-rays used in a coronary CT angiogram can harm a developing baby, so you should not have this test if you could be pregnant.

Do not have any caffeine or stimulants for 12 hours before the test. These include coffee, tea, energy drinks, diet aids, and some over-the-counter medications.

Do not eat, smoke, or use tobacco for 4 hours before the test.

Follow your doctor’s advice about your medications. You may need additional testing before the CT test if you are 60 years or older and:

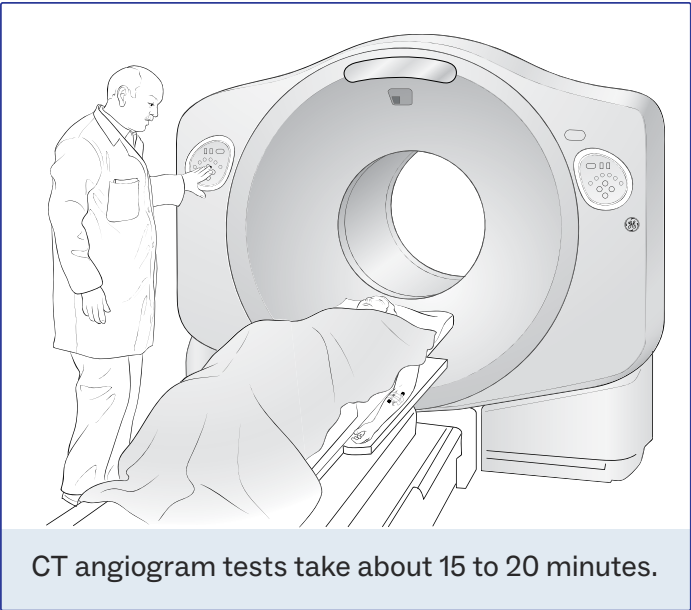
- Have a history of kidney problems
- Are on dialysis
- Have type 2 diabetes or take metformin
- Are undergoing cancer treatment
- Have certain vascular diseases or congestive heart failure
- Have high blood pressure and are on medication(s)
- Take large doses of nonsteroidal anti-inflammatory drugs (NSAIDs)

You might need to take a beta blocker medication before the test. The beta blocker slows your heart rate so the test can show more detail.

What happens during the test?

The test itself takes about 20 minutes. Here's what you can expect:

- 5 **You will feel some warmth throughout your body** for a short time when contrast is injected into your vein.
- 6 **The exam table will slide into the CT machine.** A scanner inside the machine will take a series of images. The technologist will control the scanner from another room, but they can see you and talk with you.
- 7 **You will need to lie still during the scan** to ensure the images are clear. The technologist will also ask you to hold your breath for short periods of time.
- 8 **The technologist will remove the IV line and electrodes** when the exam is finished.



CT angiogram tests take about 15 to 20 minutes.

What happens after the test?

Drink plenty of water the rest of the day to flush the contrast out of your body. **Your doctor will tell you the results in a follow-up appointment.** The information gained during the coronary CT angiogram will help your doctor diagnose your condition and propose a treatment plan.

Talking with your doctor about the coronary CT angiogram

The table below lists the most common potential benefits, risks, and alternatives for a coronary CT angiogram. Other benefits and risks may apply in your unique medical situation. Talking with your doctor is the most important part of learning about the risks and benefits. If you have any questions, be sure to ask.

Possible benefits	Risks and possible complications	Alternatives
<p>A coronary CT angiogram:</p> <ul style="list-style-type: none">• Can provide information to help diagnose a variety of heart problems• Is painless and relatively fast, when compared with other heart tests	<p>While CT scans are safe, they have the following risks and potential complications:</p> <ul style="list-style-type: none">• Some people experience itching or a rash as a reaction to the contrast. This is considered a mild reaction and would require medical intervention.• In rare cases, people can develop a severe allergic reaction to the contrast, which would require immediate medical intervention.• For some people, the contrast dye can cause reduced kidney function (or even kidney failure in very rare cases) — tell your doctor or the imaging technologist if you have kidney disease or diabetes.• Because CT scans use x-rays, you will be exposed to a small amount of radiation that can cause a slight increase in your lifetime cancer risk. (For more information, ask for Intermountain's Radiation Exposure in Medical Tests.)	<p>Alternatives include other tests that provide images of your heart or arteries:</p> <ul style="list-style-type: none">• Cardiac MRI (magnetic resonance imaging)• Chest x-ray• Angiogram• Echocardiogram• Cardiac nuclear imaging

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