

Cardiac CT Angiography

About the Test

If you have any questions or concerns, please ask the doctor or CT staff.

A Computed Tomography (CT) scan is a special way of looking inside your body. The images it produces are “cross-sectional planes” taken from part of your body much like slices taken out of a loaf of bread. Cardiac CT angiography examines the heart, its arteries and how the heart itself works. But the test itself differs from a routine CT because it can provide a more detailed image in as little as 5 to 10 seconds.

In some cases, CT angiography may prevent the need for more invasive procedures. Talk with your doctor about the benefits and risks of this exam.

The test, done in the Radiology (X-ray) department, takes about 30 to 90 minutes.

Please tell your doctor and the CT staff if you are:

- Allergic to iodine
- On dialysis or have known kidney disease
- Diabetic
- Taking a beta blocker such as Toprol®, Atenolol, Metoprolol, Tenormin®, Cartrol® or Coreg®
- Taking medication for erectile dysfunction such as Viagra®, Cialis® or Levitra®

Or if you have a history of:

- Lung disease such as asthma
- Low heart rate, high blood pressure or heart attack
- Irregular heart rates or arrhythmias such as atrial fibrillation

It also is important to tell your doctor and the X-ray staff if you might be pregnant, are trying to get pregnant or are breastfeeding.

Before the Test

If you have an iodine allergy or are taking metformin (Glucophage[®], Glucophage XR[®], Glucovance[®]), you will be given special medication guidelines.

It is important that you follow these instructions carefully.

For dialysis patients, the test may need to be scheduled on the same day as your dialysis treatment.

Patients over age 70 or those having known risk factors may require kidney function tests.

It is important that you follow these instructions before the test:

- Do not drink alcohol or caffeine for 12 hours before the test.
- Except for alcohol or caffeine, you may have anything to eat or drink for up to 3 hours before your test.
- Starting 3 hours before your test, only clear liquids are allowed. Clear liquids include:
 - Water
 - Clear soda (lemon-lime drinks, ginger ale)
 - Clear, pulp-free fruit juices (apple, white grape juice or lemonade)
 - Coffee or tea (must be decaffeinated and without milk or cream)
- You may take all of your routine medications until test time.
- Arrange for a ride home, as driving may not be allowed after the exam.

On the day of the test, plan to arrive 30 minutes before your exam time.

Be sure to bring:

- Your doctor's written order for the test
- Medical insurance information
- Medicare card (Medicare patients only)
- A list of your current medications

Parking is available for patients and visitors in the garage at 222 E. Huron, across from the Feinberg and Galter pavilions. For discounted rates, please bring your parking ticket with you. Tickets can be validated at the Customer Services Desks on the 1st and 2nd floor of the Feinberg and Galter pavilions; 1st floor of Prentice (including the Prentice 24 hour desk near the Superior entrance).

You will need to wear a hospital gown during this exam. You will be shown to a dressing area where you can change. You will need to remove any loose or hanging jewelry, such as necklaces. There is no need to remove rings or watches, but you may choose to do so for comfort and security.

An IV (into the vein) line will be placed in your arm. This is used to give the contrast agent (dye) for the exam and other needed medications.

During the Test

Before the scan begins, the CT staff will explain the test and the equipment used. You will be asked to lie on a table connected to the CT scanning machine. The skin on your chest will be prepared for electrode (small pad) placement. The electrodes monitor your heart rhythm during the test. The technologist (tech) will line up your body with the scanning machine. Staff will not be in the room during the exam. But the tech will keep in contact with you at all times by intercom.

As the exam begins, it is very important that you lie still and follow the instructions of the tech and doctor. The tech will ask you to hold your breath several times during the test.

If needed, you will be given 1 or 2 medications to help the scanner take clear pictures. These medications are given:

- Under your tongue to make your arteries look bigger
- IV to help lower your heart rate

Your heart rate, blood pressure and oxygen level will be monitored during the test.

As the dye is injected, you may feel warm and flushed or feel the urge to urinate. You may also note a metallic taste in your mouth. These are normal effects. Please tell the staff right away if you have:

- Shortness of breath
- Hives
- Itching

After the Test

If you received medication to slow your heart rate during the scan, you will be transferred to the recovery area. A nurse will monitor your heart rate, oxygen level and blood pressure for 30 minutes. You then will be given discharge instructions.

If you had medicine only under your tongue or did not receive any medications during the test, you can leave the hospital as soon as the scan is done.

At Home

You may resume your normal activities and diet after the test. Because you received contrast, it is suggested that you drink an extra 1 or 2 glasses of water throughout the day. The contrast agent will not discolor your urine.

Although it is very rare to have any delayed allergic reactions, contact the CT department or your doctor if any rash or swelling occurs.

Health Information Resources

For more information, visit one of Northwestern Memorial Hospital's Health Learning Centers. These state-of-the-art health libraries are located on the third floor of the Galter Pavilion and on the first floor of the Prentice Women's Hospital. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Centers by calling 312-926-LINK (5465) or by sending an e-mail to hlc@nmh.org.

For additional information about Northwestern Memorial Hospital, please visit our Web site at www.nmh.org.

Northwestern Memorial is an equal opportunity employer that welcomes, respects and serves with dignity all people and does not discriminate, including in hiring, or employment, or admission, or access to, or treatment in its programs or activities on the basis of race, color, gender, national origin, religion, disability, handicap, age, Vietnam or other veteran status, sexual orientation or any other status protected by relevant law. To arrange for TDD/TTY, auxiliary aids and foreign language interpretation services, call the Patient Representative department at 312-926-3112, TDD number 312-944-2358. Issues related to the Rehabilitation Act of 1973 should be directed to the director of Employee Relations or designee at 312-926-7297.

Developed by: Department of Radiology

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For more information about Northwestern Memorial Hospital, please visit www.nmh.org.

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