Cardiac CT Angiography

A cardiac CT angiography is a test to help your caregiver find out why you are having chest pains or other symptoms of heart disease. This is an advanced type of X-ray that scans a part of the body and creates multiple pictures of it. Other names for the test are coronary CT angiography, coronary artery scanning and CTA. The "CT" stands for computed tomography. For this test, the heart and the area around it are scanned.

The test is painless and fairly quick. It is *noninvasive*. That means the test does not involve any type of surgery or *incisions* (cuts). Instead, a special fluid (*contrast dye*) will be injected into an IV in your arm. The contrast dye acts as a highlighter as it flows through the veins. With the CT scan, it lets your caregiver see:

- If the coronary arteries (blood vessels) in your heart are more narrow than they should be, or if they are blocked.
- If there is fluid around the heart.
- If the muscles and tissues of the heart look weak or show signs of disease.
- If the lungs contain any blood clots.

BEFORE THE PROCEDURE

- As soon as the test is scheduled:
  - Ask whether you will need to make changes to any medications you take for chronic disease. People taking diabetes medication, for example, might need to change their routine on the day of the test.
  - Ask if you should stop taking pills for erectile dysfunction before the test.

- The day before the test:
  - Stop drinking caffeinated beverages. This includes energy drinks, tea, soda, coffee and hot chocolate.
  - Stop taking diet pills.
  - Stop taking energy pills.

- On the day of the test:
  - About 4 hours before the test, stop eating and drinking anything but water as advised by your caregiver.
  - Arrive early so you will have time to fill out paperwork and sign consent forms.
  - Avoid wearing jewelry or body piercing's. You will have will have to undress from the waist up and wear a hospital gown.

LET YOUR CAREGIVER KNOW ABOUT THE FOLLOWING:

- All medications you take. This includes prescription drugs, over-the-counter medicines, vitamin or herbal supplements.
- Any history of kidney problems.
- Allergies to iodine or shellfish.
- Allergies to any medication.
- Allergies to medical tape.
- Whether you have asthma or emphysema.
- If you are 60 or older.
- If you are getting radiation treatments.
- If you are pregnant, or might be.

THE PROCEDURE

- Preparation:
  - The hair on your chest might be shaved. This is done because small sticky patches called *electrodes* are put on your chest. These transmit information that help monitor your heart during the test.
  - You might be given heart medication during the test. This is done to control your heart rate during the test so a good image is obtained.
  - An IV will be inserted in your arm. The contrast fluid will be injected into an IV in your arm.

- During the procedure:
  - You will be asked to lie on a table with your arms above your head.
  - The contrast dye will be injected into the IV in your arm. It might feel warm or you may get a metallic taste in your mouth.
  - The table you are lying on will move into a large machine that will do the scanning.
  - You will be able to see, hear and talk to the person running the machine while you are in it. Follow that person's directions.
  - The CT machine will move around you to take pictures. Do not move while it is scanning. This helps to get a good image of your heart.
  - When the best possible pictures have been taken, the machine will be turned off. The table will move out of the machine. Your IV will then be removed.

- After the procedure:
  - You can return to normal activity as told by your caregiver.
  - Drink fluids as told by your caregiver.

RISKS AND COMPLICATIONS OF THE PROCEDURE

- Some people may have an allergic reaction to the contrast dye. This can range from mild to severe reactions which may include:
  - Itching at the IV insertion site.
  - Redness at the IV insertion site.
  - Hives.
  - Nausea.
  - Difficulty breathing.
  - Kidney failure.
- This test involves the use of radiation. Radiation exposure can be dangerous to a pregnant patient and fetus. If you are pregnant, shields are used to protect your belly and pelvic area. More details are available from your caregiver.

SEEK IMMEDIATE MEDICAL CARE IF:

- You have shortness of breath or difficulty breathing.
- Throat, tongue or lip swelling.
- You have difficulty urinating or are unable to urinate.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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