

Education

Angiograms

What are angiograms?

Angiograms are x-ray pictures of blood vessels. To do an angiogram, the doctor puts a catheter (a very thin, flexible tube) into the blood vessel. He or she then injects a contrast dye into the blood vessel that shows up on x-rays.

The angiogram allows your health care provider to check the inside of a blood vessel to see if it is narrowed, leaking, misshapen, enlarged, or blocked. Sometimes x-ray pictures of blood vessels can be done with magnetic resonance imaging (MRI) or computerized tomography (CT scan) so that a catheter does not have to be put into the blood vessel.

What are the most common kinds of angiograms?

Carotid angiogram. Carotid angiography is a procedure in which the health care provider examines your carotid arteries. These arteries travel up each side of the neck and supply blood to the brain. Angiograms of the carotid arteries can show if the arteries are narrowed or blocked. This could increase your risk of having a stroke.

Cerebral angiogram. A cerebral angiogram is an x-ray that shows the blood vessels in the brain. It is used to check for aneurysms, malformations, blood clots, unusual narrowing or blockage, or changes due to a tumor, internal bleeding, or swelling.

Coronary angiogram. Coronary angiography looks at the arteries that bring blood to the heart muscle. These arteries are called coronary arteries. Pictures of these arteries may show narrowing, which increases your risk for having a heart attack.

Aortic angiogram. In an aortic angiogram, the health care provider looks at the large artery that leads from the heart to the rest of the body. This artery is called the aorta. Angiograms of the aorta can show if it is blocked or if there is an aneurysm (a weak, bulging area).

Aorto-femoral angiogram. Aorto-femoral angiograms can show narrowing of the arteries to the legs, which may cause pain when walking.

Renal angiogram. In this type of angiogram, pictures are taken of the vessels that carry blood to the kidneys.

How do I prepare for this procedure?

Before the procedure, tell the health care provider if you have had any kidney problems or reactions to iodine-containing substances, such as contrast dye or seafood.

Follow the instructions your health care provider gives you. Eat a light meal the night before the test. You may be told not eat or drink anything after midnight on the day of the procedure.

What happens during the procedure?

You will feel very little discomfort during the procedure. The doctor performing the test injects a local anesthetic into your groin area. A local anesthetic is a drug that should keep you from feeling pain during placement of the catheter.

The catheter is inserted and guided to the artery being checked. You will not feel the catheter being moved inside your body. The doctor puts dye into the artery. Right after the injection of dye you may feel a warm or hot flush spreading over all or part of your body. This warm flush lasts only a few seconds. Sometimes the dye makes you feel like you have to urinate or move your bowels. This sensation also lasts only a few seconds.

X-rays are taken while the dye moves through your artery. Sometimes the x-rays are taken so fast that they form a movie of the progress of the dye. The x-rays show where the artery is blocked or narrowed and how much blockage, narrowing, or deformity there is. When the procedure is over, the catheter is removed.

An angiogram takes about an hour and may be an outpatient procedure.

What happens after the procedure?

After the angiogram you may be kept in an observation area for at least a few hours until any risk of bleeding is past. After that you may go home. Avoid all strenuous activity for at least the rest of the day to prevent bleeding where the catheter was put in.

Ask your health care provider for specific instructions on how to take care of yourself at home. Ask about what symptoms to watch for, and what precautions you should take. Ask how and when you should expect to hear your test results. Make sure you know when you should come back for a checkup.

What are the benefits and risks of this procedure?

Angiograms provide information that your health care provider cannot get any other way. It helps your health care provider determine the best treatment for you. Some of the risks include:

- You may have an allergic reaction to the dye, which may cause hives, trouble breathing, a drop in blood pressure, unconsciousness, or swelling of the skin.
- If you have kidney problems, the dye might make them worse.
- Blood may form a clot around the catheter and block the artery.
- You may have bleeding where the catheter was inserted into your blood vessel.
- The catheter may damage the artery.

You should ask your health care provider how these risks apply to you.

When should I call my health care provider?

Call your health care provider immediately if:

- Your leg or foot becomes cool or cold.
- The puncture site begins to bleed, swell, or become more painful.
- You have slurred speech, balance problems, or trouble using your arm or leg.
- You develop a rash, itching, sweating, or trouble breathing.

Call your health care provider during office hours if:

- You have questions about the procedure or its result.
- You want to make another appointment.

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Circulatory System

