Angiograms

What are angiograms?

Angiograms are X-ray pictures of blood vessels. To do an angiogram, your healthcare provider puts a catheter (a very thin, flexible tube) into a blood vessel. He or she then injects a contrast dye into the blood vessel. The dye can be seen on X-rays and helps your provider check the inside of a blood vessel to see if it is narrowed, leaking, misshapen, enlarged, or blocked.

When is it used?

Angiograms are done to check for blood vessels that are narrowed or blocked or have other problems. For example, your healthcare provider can see how much and where an artery is blocked. The results may help your healthcare provider see if you need treatment to widen an artery, remove a blockage, or bypass an artery.
Sometimes alternative procedures, such as magnetic resonance angiography (MRA) or computerized tomography (CT scan) may be done to look at the blood vessels. These procedures do not require putting a catheter into the blood vessel.

What are the most common kinds of angiograms?

Carotid angiogram.

Carotid angiography is a procedure in
for looking at the carotid arteries. These arteries travel up each side of the neck and bring blood to the brain. Angiograms of the carotid arteries can show if the arteries are narrowed or blocked, which could increase your risk of having a stroke.

Cerebral angiogram.

A cerebral angiogram shows the blood
vessels in the brain. It is used to check for aneurysms, malformations, blood clots, unusual narrowing or blockage, or changes caused by 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.

With an aortic angiogram, your provider can look 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, a problem that may cause pain when you walk.

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 your healthcare provider if you have had any kidney problems or reactions to iodine- containing substances, such as contrast dye or seafood.
Follow the instructions your provider gives you. Eat a light meal the night before the test. You may be told not eat or drink anything for 12 hours before the procedure. Arrange for someone to drive you home afterward.

What happens during the procedure?

You will feel very little discomfort during the procedure. You may be given a sedative, which will make you feel relaxed, but you will stay awake. You will be given a shot (a local anesthetic) to numb the area where the catheter is inserted.

The catheter is inserted into your groin or arm and guided to the artery being checked. You will not feel the catheter being moved inside your body. Dye will be injected 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 may make you feel like you have to urinate or have a bowel movement. This feeling 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 that shows how the dye is moving through the artery. 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.

At the end of the procedure, your healthcare provider will remove the catheter and put pressure on the area where the catheter was inserted (the puncture site) to control any bleeding. An angiogram takes about an hour and may be an outpatient procedure.

What happens after the procedure?

After the angiogram you may stay in an observation area for at least a few hours until there is little risk that you will have bleeding from the puncture site. After that you may go home. Avoid any strenuous activity for the rest of the day to prevent bleeding.

Ask your healthcare provider for specific instructions how to take care of yourself at home. Ask about what symptoms to watch for, and what precautions you should on test for a take. Ask how and when you should expect to hear results. Make sure you know when you should come checkup.
A bruise may appear near the puncture site and be uncomfortable for a few days.

What are the benefits of this procedure?

Angiograms provide information that your healthcare provider cannot get any other way. It helps your provider determine the best treatment for you.

What are the risks of this procedure?

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.
- 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.
- In rare cases, you may have an allergic reaction to the drug used in the anesthesia.
- If you have diabetes or kidney disease, you may be at higher risk for kidney damage from the dye.

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

When should I call my healthcare provider?

Call your provider right away if:
- The place where the catheter was put into your skin begins to bleed or swell, or it becomes more painful.
- Your leg or foot becomes cool or cold.
- You have slurred speech, balance problems, or trouble using your arm or leg. - You develop a rash, itching, sweating, or trouble breathing.

Call during office hours if:
- You have questions about the procedure or its result.
- You want to make another appointment.

Written by Donald L. Warkentin, MD.

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