



Education

Angioplasty

What is angioplasty?

Angioplasty is a procedure in which your health care provider inserts a balloon catheter into a blocked artery to unblock the artery. The blocked artery may be anywhere in the body. If the blocked artery is a blood vessel that supplies blood to the heart, the procedure is called coronary angioplasty, or percutaneous transluminal coronary angioplasty (PTCA).

When is it used?

Arteries can become blocked or narrowed by plaque. Plaque is a buildup of fats, cholesterol, and other substances on the inside walls of the arteries.

Angioplasty is used to treat symptoms caused by:

- coronary artery disease (narrowing or blockage of the arteries that supply blood to the heart).
- peripheral vascular disease (blocked arteries supplying the limbs, especially the legs).
- carotid artery disease (narrowing or blockage of the arteries in your neck.)
- renovascular disease (narrowing or blockage of the arteries going to the kidneys).

Coronary angioplasty may be done during a heart attack to reduce heart muscle damage from the heart attack.

How do I prepare for angioplasty?

Talk with your health care provider about what medicines you should take before the procedure. Your doctor may prescribe medicine to prevent blood clots from forming during the procedure. If you are taking daily aspirin for a medical condition, ask your provider if you need to stop taking it before your surgery.

- Plan for your care and transportation after the procedure and during recovery at home.
- Before the procedure tell your health care provider if you have had any kidney problems or reactions to iodine-containing foods or chemicals, such as seafood or x-ray contrast dye.
- Before the procedure, your health care provider will ask you to sign a consent form for angioplasty and angiography. (Angiography is an x-ray study of the blood vessels using dye.)
- Your health care provider will ask you not to eat or drink anything after midnight on the night before the procedure.
- You may have blood tests, an electrocardiogram (ECG), and a chest x-ray before the procedure.
- Someone at the hospital will shave and wash the area where the catheter will be inserted (arm or groin) to help prevent infection.

What happens during the procedure?

You will be given medicine to help you relax and a local anesthetic to numb the area where the catheter will be inserted. You will stay awake during the procedure.

Your doctor will put a catheter into a blood vessel in your arm or groin. A catheter is a very thin flexible tube. Using x-rays, the doctor moves the catheter to the blocked artery. A thin wire is guided through the tube into the narrowed blood vessel. Another catheter is advanced over the wire. This second catheter has a deflated balloon at its tip.

When the balloon reaches the narrow part of the artery, the doctor inflates the balloon. Inflating the balloon stretches the narrowed artery.

The doctor then deflates the balloon and removes the catheter and balloon. The stretching of the artery greatly improves blood flow through the artery. Often a metal mesh device called a stent is left in the artery to improve chances that the blood vessel will stay open.

What happens after the procedure?

You will go back to your hospital room and rest in bed for a few hours. You will most likely be able to go home the next day. In some cases, people go home the same day. You can usually go back to your normal activities within a day or two.

Angioplasty is successful over 95% of the time. However, there are times when the balloon cannot enter the severely narrowed artery. Sometimes the narrowed or blocked artery won't widen.

People with successful angioplasty have good long-term results. Some people's arteries may narrow again and may need angioplasty again. This usually happens within 6 months of having the procedure.

What are the risks and benefits of this procedure?

- It can restore blood flow in the artery without major surgery.
- It can be performed without using general anesthesia.
- You may have an allergic reaction to the local anesthetic or x-ray dye.
- You may bleed a lot and need medicine or a blood transfusion.
- The artery may be damaged. For example, the catheter might poke a hole in the artery during the procedure. Emergency surgery or repair of the hole would then be needed.
- There is a risk of injury to the groin or arm where the catheter was inserted.
- The blockage may come back after 3 to 6 months.
- The procedure could cause a stroke.

There is risk with every treatment or procedure. Talk to your provider for complete information about how the risks apply to you.

How can I take care of myself?

- Do not smoke.
- Eat a healthy diet that is low in fat and cholesterol.
- Exercise according to your health care provider's recommendation.
- Keep your appointment for your scheduled post-discharge office visit.

When should I call my health care provider?

Call your health care provider right away if:

- You have chest pain.
- You have constant or worsening pain or numbness in your arm or leg.
- You have a fever.
- You have shortness of breath.
- Your arm or leg becomes blue and cold.
- You have bleeding, excess bruising, or a lot of swelling where the catheter was inserted.

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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