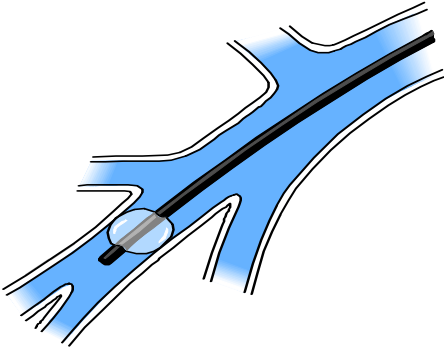


Angioplasty



Angioplasty is a procedure that is performed during heart catheterization to open blockages of the coronary vessels (the blood vessels that supply the heart). In general, it is performed when the blockage is so great that it produces symptoms such as chest pain or shortness of breath, or significantly increases the risk of suffering a heart attack. Angioplasty is not necessary for all blockages. On some occasions, all you have to do is adopt a

healthier lifestyle and often take some medication to lower the risk factors that cause the progression of heart disease. These may include:

- Following a healthy diet
- Staying physically active
- Losing weight
- Lowering blood pressure
- Quitting smoking
- Lowering cholesterol, especial LDL (bad) cholesterol
- Controlling diabetes.

It is possible that other patients may not need to undergo an angioplasty, but may need to take medications to control the symptoms caused by blockages, such as chest pain and shortness of breath.

In the case of patients who need to undergo an angioplasty, the doctor will analyze the risks and benefits of the procedure beforehand. The procedure consists of inserting a catheter (a long and thin tube) with a small and narrow balloon at the tip in the coronary artery where the blockage is. Once the catheter is in the place of the blockage, the balloon is inflated, opening up the obstructed area. In some patients, a stent (a mesh similar to a metal tube) is placed simultaneously to keep the artery open.

Preparation:

- Heart catheterization is generally performed on an outpatient basis. It is carried out at the hospital in a specialized procedures room known as catheterization laboratory. Before the angioplasty, a catheterization is performed to identify the area of blockage that needs treatment.
- Wear comfortable clothes when you go to the hospital. You will have to wear a hospital gown during the procedure.
- Leave all money, jewelry and other valuables at home. If you use false teeth, eyeglasses or hearing aids, you must use them during the procedure to be able to communicate.

- The doctor or nurse will give you specific instructions about what you can eat or drink before the procedure. In general, you should plan not to eat or drink anything after midnight on the night prior to the catheterization.
- Ask the doctor what medications you should take the day of the examination. It is possible that you may be told to stop using certain medications, such as Coumadin (warfarin, an anticoagulant) or products with aspirin. If you are told to take your medications, taken them with small sips of water.
- If you have diabetes, ask the doctor how you should adjust your medications on the day of the examination.

What to expect:

- When you arrive, you will have to complete additional medical information. You will have to know the names of all the medications you take and whether you are allergic to anything. Do not forget to remind the doctor or nurse if you suffer from any allergies. This is especially important if you are allergic to iodine, shellfish or radiographic dye. It is also important to report an allergy to latex. Some medications could increase the risk of suffering complications due to the catheterization. These include aspirin and related medications, Coumadin (warfarin), Plavix (clopidogrel), diuretics and insulin. Take a list of your medications (including over-the-counter ones) and the doses.
- You will have to change and put on a hospital gown.
- A nurse will place an intravenous line in your arm so that liquids and medications can be administered to you during the procedure.
- The heart catheterization room will be cool and have very little light. The air must be kept cool not to damage the equipment that is used in the procedure.
- You will have to lie down on a special table that is hard. You will see a large camera and several television monitors. You will be able to see the heart catheterization on the monitors.
- The nurse will clean your skin on the place (arm or groin) where the catheter is inserted (a thin plastic tube). It is possible that the nurse may shave the place where the catheter is inserted.
- Sterile cloths will be used to cover the place of the insertion and prevent it from becoming infected. It is important for you to keep your arms and hands on the sides, under the sterile cloths.
- Electrodes (small flat adhesive patches) will be placed on your chest. The electrodes are connected to an electrocardiography (electrocardiogram) monitor, which will monitor the heart rate and rhythm during the procedure.
- A mild sedative will be applied intravenously for you to relax, but you will be awake throughout the procedure.
- The doctor will use a local anesthetic to numb the place where the catheter will be inserted. A plastic introducer (a short and hollow tube that is used to guide the catheter up to the blood vessel) will be inserted in a blood vessel in the arm or groin. It is possible that a small incision may have to be made to insert the introducer through the skin. A catheter will be introduced through the introducer and will be threaded up to the heart. It is possible that you may feel

pressure when the introducer or catheter is inserted, but you should not feel pain. Tell the nurse or the doctor if it hurts.

- Once the catheter is in place, the lighting will be dimmed and a small amount of contrast material (an intravenous dye that allows the heart and the blood vessels to be seen on the X-rays) will be injected into the arteries and the chambers of the heart through the catheters. The contrast material delineates the vessels, valves and chambers.
- When the contrast material is injected into the heart, you may feel heat for several seconds. This is normal and will disappear in a few seconds. The symptoms of an allergic reaction may include itching or a feeling of tightness in the throat. You must inform the doctor immediately if this happens. Symptoms of nausea and chest discomfort may also appear. Inform the doctor or the nurses if you perceive these symptoms or any other.
- The X-ray camera will be used to take photographs of the arteries and the chambers of the heart. You may be asked to hold your breath while the X-rays are taken. Once the areas of blockage have been identified, the balloon catheter will be introduced in the area of blockage in the coronary artery and the procedure will be carried out. When the procedure has finished, the catheter will be removed and the lights will be turned on.

After the procedure:

- The catheters and the introducer will be removed.
- If the catheter is inserted into your arm: your incision will be bandaged. You will have to keep your arm straight for at least an hour. You will be able to walk. You will remain under observation for a few hours to check whether any symptoms or side effects from the procedure appear. You will be given instructions about how to care for your arm when you return home. Tell the nurse if you think you are bleeding (if the place feels warm and moist) or if you feel tingling or numbness in the fingers.
- If you had the catheter inserted in the groin: the incision will be closed applying pressure directly to the place where the catheter was inserted, or with a "plug." A "plug" is a material that works together with the body's natural scarring process to form a clot in the place where the catheter left an opening. A suture may also be used to close the small incision in the skin in the place where the catheter was inserted. You must lie flat and keep your leg straight for two to six hours to keep the place where the catheter was inserted from bleeding (you will stay less time if a plug is used). You will not be able to raise your head more than 30 degrees (2 pillows). Do not try to sit up or stand up.
- A sterile bandage will be placed on the groin to protect it against infections. The nurse will examine the bandage periodically, but tell the nurse if you think that you are bleeding (you feel the place warm and moist) or if you feel tingling, numbness or coldness in the toes.
- You will need to drink lots of liquids to eliminate the contrast material from the body. You may need to feel the need to urinate more frequently. While you are in bed, you will have to use a commode or urinal (chamber pot).

- The doctor will tell you if you can return home or have to spend the night admitted. You will be monitored for several hours after the procedure.
- The treatment, including medications, diet and future procedures, will be explained to you before you return home. How to care for the wound, what activities you can do and the subsequent treatment will also be explained to you.

LifeART/MediClip image copyright 2007 Lippincott Williams & Wilkins