

Cardiac Catheterization and Angiogram

A cardiac catheterization is a procedure that allows the cardiologist to get direct information about the blood pressures and patterns of blood flow within your heart. An angiogram is an X-ray movie that's taken while special fluid (called contrast) that's visible by X-ray is injected into a cardiac chamber or major blood vessel.

Your cardiologist or nurse will explain the reason for this procedure and how it will help in your care. They will also explain the test's possible risks, which fortunately are rare. After you've heard about the test and have had a chance to ask questions, you'll be asked to sign a consent form to have the test. Since a catheterization and angiogram require special X-ray equipment that's only found in hospitals or large medical facilities, the test must usually be scheduled in advance.

Patients may be admitted to the hospital on the day of the catheterization or the day before. For several hours before the catheterization, you'll be told not to eat or drink anything. Before the test is done, you may be given a sleeping medicine by mouth or in a small shot under the skin. An intravenous line (IV) is sometimes placed in one of the veins. During the catheterization you'll be cared for by a team of nurses, doctors and technicians. The catheterization test usually causes little discomfort.

The catheterization involves placing small IV tubes in the vein and artery of a leg, arm or the neck. Through the special IV tubes the cardiologist can pass thinner tubes (called catheters) into the circulation. Catheters are small, hollow plastic tubes that are the size of spaghetti noodles. The catheter is slowly moved through the circulation until it reaches the heart. From there it can be passed to different chambers of the heart and to the veins and arteries connected to the heart. Your cardiologist can learn very important information about your heart condition from the blood samples and blood pressures measured through the catheter at different places in the circulation.

During the catheterization an angiogram is usually performed. This is done by injecting special fluid (called dye or contrast) through the catheter into a blood vessel or a chamber of the heart. Since the dye is visible by X-ray, an X-ray movie of the circulation can be recorded. An angiogram requires much more X-ray than is needed for a simple chest X-ray. For this reason the test is performed only when it's definitely necessary for your care. Be reassured that many studies have been done that show no long-term effects in people who had cardiac catheterization and angiography.

Sometimes a heart defect can be treated during the cardiac catheterization. This is called an interventional or therapeutic catheterization. These treatments include opening up a hole in the wall between the upper chambers, opening up a blocked valve or vessel, plugging off the unnecessary vessel or closing unnecessary holes in the heart. Your cardiologist will discuss these treatments with you before the catheterization.

After the catheterization and angiogram, the small catheter tubes and IV lines will be taken out of your leg or arm and a pressure bandage will be placed over the area. You will be moved to the recovery room after the test is completed and observed for several hours before being discharged to go home or admitted to the hospital if more testing and/or observation is needed. After the catheterization, your cardiologist will discuss the results of the test with you.