

Coronary Angiogram

A coronary angiogram, also called a heart catheterization, is a nonsurgical test that looks at your coronary arteries (blood vessels that supply your heart with oxygen). During the test, the doctor inserts a catheter (a very narrow, soft, flexible plastic tube) into the arteries of the heart. A special contrast (x-ray dye) is injected into the arteries. At the same time, a camera takes pictures to show any blockage in the arteries of your heart. At this time the doctor may also view how effectively your heart is pumping and check the opening and closing of the valves.

The Heart

The heart is a muscle about the size of your fist that pumps the blood through blood vessels to deliver oxygen to muscles and all the organs of the body. Since the heart itself is a muscle, it has special vessels known as coronary arteries that supply the heart with oxygen and nutrients needed. The coronary arteries are what become blocked and cause chest pain or pressure and eventually a heart attack, if the blockage is severe enough.

The heart also consists of four chambers and four valves. The heart is separated into two halves. The right side of the heart, which receives the blood after it has traveled through the body, and the left side of the heart which is the main pump of the heart.

Preparing For Your Test

Your doctor will talk with you about the benefits and risks of having a heart catheterization (cath). Although rare, these risks can include bleeding from the puncture site, allergic reaction to the dye, heart attack, stroke or death. Please let your doctor know if you have any allergies or if you are on any blood thinning medications.

The day before your heart catheterization there are a few instructions that need to be followed. The night before your exam you may not be allowed to have anything to eat or drink after midnight. The doctor's office will let you know what medications, if any, to take the morning of your exam.

The heart cath is performed as an outpatient procedure. You will need to arrive 1 1/2 hours prior to your actual exam time to prepare for your procedure. The heart cath varies in length, usually from 1-2 hours, followed by 2-6 hours for recovery. On occasion, you may need to remain in the hospital overnight.

Once you arrive at the hospital, the nurse will get you ready for your heart cath. This includes checking your pulses and listening to your heart and lung sounds. The nurse will start an intravenous (IV) line, which is a small tube that is inserted into a vein in your hand or arm so that fluids and medications may be given during the procedure. The nurse also will shave your groin area where the doctor will insert the catheter. Sticky patches will be placed on your chest to monitor your heart rhythm. It is the doctor's choice on whether he will take the radial or groin approach.

During The Test

You will be positioned on your back on a narrow table. A large camera will be over your chest to take pictures of your heart. A blood pressure cuff, oxygen and heart rhythm monitor will be applied. You may be given medication in your IV to help you relax and for any discomfort that you may experience. The site on the skin where the tubes are inserted is cleaned with a special soap. This helps to decrease the risk of infection. A sterile drape will be used to cover you. The nurse will tell you where you may place your arms. It is also very important not to touch other parts of the sterile drapes once you have been covered.

The doctor will numb your groin. At first it may feel like a bee sting. The doctor will then gain access to your blood vessel using a needle. Once access is obtained, a sheath (straw-like tube) will then be inserted into your blood vessel to pass the catheters and wires to your heart. You will not have any feeling of these catheters as they move toward your heart. Pictures of your heart will be displayed on a special monitor. (You may be able to see the monitors while lying on the table).

You may feel your heart beat rapidly or feel your heart skip a beat during the procedure. You will also experience a warm flush feeling throughout your body lasting for a few seconds. This is normal when the dye is injected. One of our cath lab nurses will be with you at all times. **If you have any concerns, pain or discomfort, let the nurse know right away.**



After The Test

Once the heart cath is over, the catheters are removed. To stop the bleeding, the doctor will either use a special device to close or seal the puncture site or apply physical pressure. You will have to lie flat for a few hours after the procedure to make sure all bleeding has stopped. Nurses will be checking your blood pressure, pulses and the catheter insertion site frequently for the first few hours. It is important that you keep your leg straight during this time. You will be given specific instructions at that time as to how long you will need to remain in bed and limitations on movement of the arm or leg used during the test. After the test, it is important to drink fluids to assist your body in eliminating the dye. Let your nurse know immediately if you are experiencing any chest pain or discomfort, pain at the puncture site or bleeding from the puncture site.

Following your heart cath, your doctor will discuss the results of the test. It may be necessary to do an additional procedure (balloon angioplasty or a stent) at the same time and your doctor will discuss this with you in more detail.