

The Heart Catheterization Procedure

A heart catheterization involves placing a catheter (a long thin tube) into the heart to measure pressures, inject dye and take X-rays. This procedure normally takes less than an hour.

Before The Test

Eating and Drinking

You must not eat or drink after midnight the evening before the test, except to drink small amounts of water when taking medications. If the catheterization is not scheduled until the afternoon, your physician may allow you to have clear liquids for breakfast, after which you must not eat or drink.

Admission to the Hospital

Unless your medical condition requires prior hospitalization, you may be admitted to the hospital as an outpatient the same day as the cardiac catheterization is scheduled. You may be released two to six hours after the procedure. In most cases, preliminary blood tests, chest X-rays and electrocardiograms will be obtained at your physician's office prior to the procedure or you may be instructed to have these tests done the morning of the procedure at Lexington Medical Center.

Insurance

At least two working days prior to your cardiac catheterization, your physician's office should contact your insurance representative to inform them of your anticipated procedure. Many policies require pre-certification or prior approval for coverage of elective procedures. The registration staff will assist you if you have further questions.

Allergies

Tell your physician as soon as possible if you have a history of allergies to any medications, shellfish and/or X-ray dye.

Consent

A physician will explain why the procedure is necessary and what risks are involved. The degree of risk is related in part to your health condition and varies with each patient. The procedure requires written consent.

Skin Preparation

The day of your procedure, your skin will be prepared by scrubbing and shaving body hair from potential catheter insertion sites. The most commonly used site is the inside part of your thigh (groin area), but occasionally the arm is used. Skin preparation helps ensure a clean site and reduces the chance of infection where the catheter enters the skin.

Intravenous (IV) Lines

A small catheter is inserted into a vein to provide an access site in case medications need to be given or intravenous solutions are required. Once in the procedure room, you may be given additional medication through your IV.

Immediately before the procedure

Before going to the catheterization laboratory, you should use the bathroom because it will be a couple of hours before you return to your room. You will wear a hospital gown without pajama bottoms to permit easy access to the catheter insertion site. You may wear your glasses, dentures and/or socks, if desired.

Family Support

Your family members should wait in the cath waiting area during the procedure. Outpatients need to have a responsible adult drive them home and assist them the evening of the procedure.

Equipment

During a catheterization, you lie on a special table and a camera rotates around you to obtain pictures of the heart from different angles. The pictures are taken by an X-ray movie camera located above your chest. During the procedure, you can see the pictures on a special television screen.

Monitoring

During the procedure, your electrocardiogram (ECG) and pressures in the heart chambers are also monitored.

Site Preparation

The entry site (forearm or groin) for the catheter is scrubbed with a soap solution and covered with a sterile drape which you should not touch during the test.

Insertion of the Catheter

When the physician numbs the insertion area with a local anesthetic, you will feel an initial needle prick, then a slight burning sensation from the anesthetic. After that you should not have significant pain. You may have a sensation of pressure when catheters are exchanged. The physician uses a needle to enter the blood vessel. A guide wire is passed through the needle and the needle is removed. Next, a small plastic tube (catheter) is threaded over the wire and guided through the vessel and into the chambers of the heart. An X-ray confirms the desired location of the catheter tip, and the guide wire is removed. The catheter is connected to special equipment, which records pressures in the different heart chambers.

Blood samples drawn; dye injected; X-ray pictures taken

Blood samples may also be drawn through the catheter. After this, contrast material (dye) is injected, while X-ray motion pictures are taken. During the injection of dye, you might feel a warm sensation that spreads from head to toe and lasts 30 to 60 seconds. You may be asked to cough or hold your breath at certain times during the procedure.

After the Test

When the test is finished, the physician removes the catheter (from the forearm or groin) and pressure is applied for about 15 minutes or, if possible, there will be a special closure device. The insertion site is usually covered with a small dressing. You are returned to your room, or if necessary, you may be moved to a special care area where your heart's rhythm can be carefully monitored.

Returning to Your Room

When you return to your room, you are required to lie flat on your back for a minimum of four to six hours or less if a closure device is used. The head of the bed may be elevated slightly after 2 hours, if there has been no bleeding. It is important to keep the leg or arm that was used in the procedure straight and immobile during this time to minimize the chances of bleeding. After a few hours, if there has been no bleeding from the catheter insertion site, the staff will assist you out of bed so you may do some walking.

Nursing Care

After you return to your room, a nurse frequently checks your blood pressure, pulse and catheterization site for signs of bleeding. The pulse and temperature of your feet are checked, too. You are instructed to apply firm pressure to the catheter insertion site with your hand when moving or coughing. You may have difficulty with urination because of lying flat during the recovery phase. If so, a Foley catheter can be placed to help you empty your bladder.

Eating, Drinking

An intravenous solution may be given to ensure that you have adequate fluid intake. Your physicians will determine when you can eat or drink. Your initial meal will be all liquids. Unless advised otherwise, you are encouraged to drink plenty of fluids.

Discomfort

If you experience any pain or discomfort (backaches may occur during bed rest after catheterization), ask your nurse for pain medication. If you experience any chest discomfort or note any bleeding at the catheterization site, you should notify a nurse immediately.

Results

Your physician will notify your family when the procedure is completed, and will discuss your test results either on the afternoon of the procedure or the next day. A plan for your therapy will be discussed.

Day After the Procedure

The following day you may be up and about, but do not do any strenuous activity for three to five days. You are encouraged to drink fluids unless otherwise instructed. The catheterization site might also be sore for a couple of days and may bruise. We recommend that you do not do any heavy lifting for a couple of days. Once you return home, if you have any bleeding or swelling at the catheterization site, please notify your cardiologist.