

If you have any questions or concerns, please ask your doctor or nurse.

Cardiac Catheterization

A cardiac catheterization (cath) is an X-ray exam of the heart and its arteries. It looks at how well the heart works. The test helps detect the area and extent of any artery blockage or narrowing.

During the exam, a thin catheter (tube) is inserted into an artery and slowly passed to the heart. Dye (contrast) is injected and X-rays are taken. The contrast allows the blood vessels to be seen. The exam involves little or no discomfort and lasts 1 to 2 hours.

This guide will explain what to expect before, during and after a cardiac cath.

Before the Exam

The cardiac cath lab nurse will contact you 1 to 2 days before the exam. The nurse will answer your questions and review pre-cath guidelines. Please tell the nurse about any allergies or if you have ever had an unusual reaction to iodine or X-ray contrast.

Night Before the Exam

The night before the exam, do not eat or drink anything after midnight.

Day of Test

On the day of the test, take only the medicine the nurse has instructed you to take. Medicine should be taken with small sips of water. Do not take Metformin (Glucophage®, Glucophage XR®, Glucovance®) on the morning of your test.

For Diabetics Taking Metformin:

If you are a diabetic taking Metformin (Glucophage®, Glucophage XR®, Glucovance®), talk with your doctor (who manages your diabetes). The contrast given during the cath may affect the way Metformin works. You may not take this medicine for at least 48 hours **after** a cardiac cath. Contact your doctor and develop a short-term plan for controlling your blood sugar (diet, other medicines or checking blood sugar levels).

Please check in on the 8th Floor of the Galter Pavilion, 675 North Saint Clair Street. Parking is available for patients and visitors in the garage at 222 East Huron Street, across from the Feinberg and Galter pavilions. Check in at the reception desk on the 8th floor. For discounted rates, please bring your parking ticket with you. Tickets can be validated at the Customer Services Desks on the 1st, 2nd and 8th floors of the Feinberg and Galter pavilions.

For their own safety, children under the age of 16 may not visit in the testing area. They may stay in the waiting room with a responsible adult.

What to Expect

You are assigned a room for both your pre and post cath care. After you change into a hospital gown, the nurse will review your health history and take your blood pressure and pulse. Blood tests are done (for diabetics, this includes a blood creatinine test). An IV (into the vein) line is inserted into your arm or hand. The IV is used for fluids and medicines needed during the exam. Your groin area is cleaned and shaved.

The doctor will discuss the exam with you. After the doctor has answered your questions, you will be asked to give your written consent for the test.

You may wear your watch, glasses, dentures (or bridgework), jewelry and hairpieces. You are asked to empty your bladder just before going into the procedure room.

During the Exam

Once you come into the cath lab, you are assisted onto a firm, X-ray table. The room has a camera and several TV monitors. Medicine to relax you is given into the IV line. You may feel drowsy but usually you will be awake and comfortable during the test.

The femoral artery in the groin area, is used most often for the exam. Other sites, such as the brachial artery (in the bend of the elbow) or the radial artery (wrist) may also be used. The area around the puncture site is cleaned with a special soap that may feel cold. An anesthetic (numbing medicine) is injected into the area. A needle is inserted into the artery and the catheter is guided into position. This is not usually painful. You may feel pressure and mild discomfort at the puncture site. If needed, added numbing medicine is given. Contrast is injected into the catheter and carried through the blood vessels. As the contrast is injected, you may feel flushed or warm. This lasts a few seconds. Then, a series of X-rays are taken.

If a blockage is found, your doctor may be contacted. In some cases, treatment is done during the exam itself. This may include angioplasty and often stent placement. In angioplasty, a small tube (catheter) with a balloon tip is inserted into the narrow artery. The balloon is slowly inflated to open up the artery. At this time, a small metal coil (stent) may also be inserted to keep the narrow artery open. Patients having an angioplasty or stent placement remain in the hospital overnight.

After the Exam

After returning to your room, you will need to lie flat in bed for 2 to 6 hours. (Longer bed rest is needed after an angioplasty.) This allows the artery to seal. Once bed rest is over, the nurses will assist you to sit up and walk. After the doctor discusses the test results and checks the wound site, you may be discharged.

If you have an angioplasty or had a stent placed there may be added follow-up care.

At Home

After your cardiac cath, the following provides helpful information to assist your recovery.

Fluids

You should drink at least 6 glasses of water (8 ounces each) over the next 24 hours (unless otherwise instructed). Water helps to clear the “dye” used during the procedure from your body.

Activity

While the wound is healing, bleeding or swelling can occur as a result of stress or strain to the groin and abdominal muscles. Carefully follow these guidelines:

- On the day of discharge, limit your activities.
- No driving for 24 hours.
- Showering is permitted the following day.
- No tub baths for 1 week.
- Climb stairs with a slow, steady pace until 2 days after the cath.

You may resume your usual activities the day after discharge, including normal social activities, but:

- No heavy lifting (greater than 10 pounds) for the next 3 days. (If the artery in the wrist was used: do not lift more than 3 to 5 pounds with the affected wrist for 1 week.)
- No strenuous physical exercise for 1 week. (i.e., tennis, running, swimming, golfing, weightlifting, bicycling).
- No sexual activity for 1 week.

Special Instructions for Diabetics

If you are taking Metformin, the nurse will give you an order for a **blood creatinine** test. This blood test should be done at least 48 hours after your cardiac cath.

Do not take Metformin until the doctor or cath lab nurse tells you to resume. Most patients may begin Metformin 48 hours after this type of test. Until then, follow your doctor’s advice about caring for your diabetes (diet, other medicines, and monitoring of your blood sugar levels).

Contact the doctor (who manages your diabetes) if there are any changes in your diabetes control.

Wound Care

After the cath, a small dressing is applied to the wound site. You may remove the dressing the day after the exam. Do not reapply a dressing. Keep site clean and dry.

Avoid lotions, ointments, or powders at the wound site for 1 week.

Wound Healing

The healing wound should be soft and dry. A bruise (black and blue) or a marble-size lump may be present. Please contact your doctor or the cardiac cath lab doctor if any of the following signs appear:

- Redness around the skin wound.
- Drainage from the wound.

- A lump at the puncture site that enlarges or is larger than marble size.
- Pain at the puncture site that makes walking difficult.
- Numbness or tingling in the thigh or leg.
- Calf tenderness or pain.
- Increased area of the bruising extending into the thigh, over the buttock or into the groin.
- Discoloration or coolness of the leg or foot.

If your brachial or radial (wrist) artery was used for the cath, notify the cardiac cath lab doctor if there is arm or hand numbness, coldness, tingling, swelling, or pain.

Warning Signs and Symptoms

Chest Pain and Other Symptoms

Please notify your doctor **right away** if you have:

- Chest discomfort or pain (angina) that radiates to the neck, jaw or arm.
- New symptoms or a change in your pattern of angina.
- Nausea or profuse sweating.
- Shortness of breath with exertion.
- An irregular heartbeat.
- Lightheadedness or dizziness that makes you lie down.
- A fainting spell.

Go to the nearest emergency room if you have:

- Chest discomfort or pain lasting longer than 10 minutes and not relieved by taking 1 nitroglycerin tablet under the tongue.
- Frequent, recurring episodes of chest discomfort or pain.

If you have any questions about this information, talk to your doctor, nurse or the Cardiac Cath Department at 312-926-5135.

Health Information Resources

For more information, visit Northwestern Memorial Hospital's Alberto Culver Health Learning Center. This state-of-the-art health library is located on the 3rd floor of the Galter Pavilion. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Center by calling 312-926-LINK (5465) or by sending an e-mail to hlc@nm.org.

For additional information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312-926-3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital's Patient Representatives Department at 312-926-3112, TDD/TTY 312-944-2358 and/or the Northwestern Medical Group Patient Representatives Department at 312-926-1920, TDD/TTY 312-695-3661.

Developed by: Cardiac Catheterization Laboratory