

Why Do Cardiac Catheterization?

In general, cardiac catheterization is done for one or more of the following reasons:

- To evaluate or confirm coronary heart disease(for example, in patients with chest pain and/or an abnormal stress test)
- To determine whether treatment (with balloon angioplasty or bypass surgery)can help a patient diagnosed with coronary heart disease
- To see how well blood flows through the coronary arteries after angioplasty or bypass surgery
- After a heart attack, to find out how severely the coronary arteries are narrowed or blocked
- To evaluate the cause of the heart failure
- To determine if there is significant heart valve disease that might require surgery
- To determine whether there is a congenital heart defect and evaluate how severe it is

Is Cardiac Catheterization Safe?

Because one or more catheters are inserted into your body, Catheterization does have some risk. The risk is small, however, and the test is generally safe. Most of the complications, if they occur, are minor and temporary. This includes nausea and vomiting, allergic skin rash, and irregular heartbeat. Some people may have bleeding at the insertion site. Blood collects under the skin causes swelling and or bruising in the groin or arm. More serious complications are rare. These include damage to the heart and blood vessels, blood clots, infection, allergic reactions to the contrast, abnormal heart rhythms, and damage to the kidneys from the contrast, heart attack, or stroke. Death is very rare. Most patients who have catheterization do not have serious complications. However, you should be aware of the risk involved. If you have any questions about your risk, ask your doctor.

Potential Benefits

Cardiac catheterization provides more accurate and detailed information about how heart is working than other diagnostic tests. The information helps doctors diagnose your problem accurately and allows them to choose the most effective treatment.

Before Your Cardiac Catheterization

- Generally, **you will be asked not to eat or drink anything** for 6 to 8 hours before the procedure. This helps prevent nausea. You may have small sips of water to take your medications.
- Check with your doctor several days before the procedure. **You may be asked to stop some medications** (such as anticoagulants) for a few days before your catheterization.
- **Make arrangements** with a friend or family member to drive you to and from the hospital. You will not be permitted to drive home after the procedure, since you may be sedated.
- **Pack a small bag** in case your doctor decides to keep you in the hospital overnight. You may want to include a robe, slippers, pajamas or nightgown, and toiletries.
- **Bring a list of the names and dosages of all the medications** you are taking.
- **Tell the doctor or nurse** if you have had any allergic reactions to medications or x- ray dye (contrast), iodine or seafood, or if you have a history of bleeding problems.

Preparing for Cardiac Catheterization

Unless you are already in the hospital, you will most likely be asked to arrive in the morning on the day of your catheterization. You may have several routine tests, such as ECG, x-rays, and blood tests. (These tests may be done a few days before the procedure). The doctor will review your medical history and examine you. (You may see the doctor at the office several days before the procedure.) The doctor or the nurse will talk with you about the procedure and its purpose, benefits and risks. This is a good time to ask questions and, most important, to share any concerns you might have. You will then be asked to sign a consent form.

This is usually at the groin (the fold between the thigh and abdomen). In some cases it might be at the wrist or arm. An intravenous (IV) line will be inserted into a vein in your arm. This line allows drugs to be injected directly into the vein, if they are needed. To help you relax you will be given a sedative.

What Can You Expect during the Cardiac Catheterization?

You will be given medication to help you relax and make you drowsy. You may be awake, or you may sleep through part or all of the procedure. The staff will be monitoring you at all the times. You may be asked to take a deep breath and hold it, to keep the pictures from blurring.

You may also be asked to cough forcefully several times, to help move the dye through the heart. The procedure generally is not painful, although you may feel some pressure as the catheters are inserted. You will not feel the catheters as they move through the blood vessels and into your heart. As x-ray contrast is injected into the heart, you may feel a warm sensation (hot flash) through your body, lasting for 20 to 30 seconds. You may also feel nausea, chest discomfort, or mild headache. A complete cardiac catheterization procedure usually takes from one to two hours. If you feel pain or discomfort at any time during the procedure let the staff know

What Happens During The Procedure?

The site where the catheters will be inserted is usually in the groin. The site is cleansed thoroughly. A local anesthetic is injected into the skin with a tiny needle to numb the area. This may cause a stinging sensation. A small needle is used to puncture the blood vessel (usually an artery). A guide wire (a soft and flexible wire) is threaded into the artery. A short plastic tube, called a **sheath**, is then slipped over the guide wire and into the artery. The guide wire is then removed. Once the sheath is in place, doctors can insert and remove several different catheters without having to use a needle each time. The catheter is inserted into the artery and guided toward the heart, while the staff watches its progress on a television screen. The catheter may be removed and replaced several times. This is done to reach each of the heart chambers or coronary arteries. Once the catheter is inside the heart, the doctors can measure the pressures in the left ventricle (the main pumping chamber) and take pictures of the coronary arteries and left ventricle.

At home, After the Procedure

In case of bleeding from incision site, please lie down, apply strong pressure and call 911.

- Follow instructions from hospital discharge.
- Avoid lifting (more than 10 pounds) for the first 5-7 days after the procedure. Do not strain during bowel movements for the first 3-4 days.
- Should not go to work for 3-5 days depending upon the nature of your job.