

## Right and Left Heart Catheterizations

A right heart catheterization is a diagnostic test for your heart. It checks how well the right side of your heart functions, measures the pressure of your heart, identify changes in the blood flow through your lungs. A thin flexible tube called a “Swan Ganz catheter” is usually inserted through a vein in the groin or neck.

A left heart catheterization is another type of diagnostic test of your heart. It checks the condition of your arteries. Contrast dye is injected to see the location of the blockage. An x-ray machine shows and records the images. A thin flexible tube called a catheter is usually inserted through a blood vessel in the arm, wrist or groin.

This procedure takes approximately 60 minutes to 120 minutes to complete. The preparation and recovery time will add several hours to your appointment time and may take up to 6 hours total.

### Purpose

Heart catheterization is used to:

- Identify the outlining of the heart chambers or coronary arteries using specialized x-rays called angiograms.
- Record the pressures in the blood vessels, lungs and chambers of the heart.
- Measure the blood flow and oxygen content in different parts of the heart.
- Biopsy the heart muscle by taking a small tissue sample using an instrument passed through the catheter.

### Preparation

Before the procedure, you may need a few lab tests prior to the procedure. If you are female, a pregnancy test may be ordered. You should have these tests before the procedure in order for your results to be reviewed by your health care team. Not having these results may mean a delay in your testing.

If you are receiving chemotherapy or have just completed chemotherapy or if you are on an anticoagulant therapy, your blood tests **must** be done within 24 hours of testing.



- **Tell your doctor or nurse if you are taking any blood thinning medicines like Coumadin®, Heparin®, Eliquis™, Pradaxa™, Savaysa™, Xarelto®, Plavix® or aspirin. You may have to stop taking these medicines before the test.**
- **Do not take insulin or other diabetic medicines the morning of the procedure.**
- **Do not eat or drink anything after midnight before the procedure.**
- **You will need someone to drive you home after the procedure.**

You may take prescribed medicines as directed with small sips of water. Make sure to bring a list of all your medicines. Tell your health care team if you have any allergies.

## Precautions

Tell your nurse or doctor if you:

- Are diabetic or taking Glucophage® (Metformin)
- Are or could be pregnant
- Are allergic to contrast media (iodine dye) or have food allergies to shellfish
- Have a respiratory problems or sleep apnea
- Have any conditions such as diabetes or kidney disease that may require taking extra steps
- Have had a barium test within 5 days before the test
- Weigh more than 300 pounds
- Taking blood thinners

## Directions to Clinic

You may valet park in front of the Main Building, entrance 2. The fee is \$15.00 per day. Garage 10 and Garage 2 are self-park locations for \$12.00 per day.

After parking your vehicle, enter the building and find elevator F. Go up to the 3rd floor. You should see a sign directing you to the Cath lab check-in G3.3604. This is where you will register for the procedure. When it is time for your procedure you will be taken to the Cardiac Cath Lab which is also on the 3<sup>rd</sup> floor.

## Day of Procedure

1. Bring any outside cardiac catheterization films (x-rays) with you.
2. Plan to spend most of the day here at the hospital. Your doctor will tell you if you will be admitted to the hospital after the procedure.
3. Report to the Cath lab check in desk on Floor 3 of the Main Building, near elevator F. You will sign in with the receptionist. You will then be taken into a room to prepare for the procedure.
4. The procedure may take between 1 to 2 hours.
5. A nurse will start an IV (intravenous) line in your arm or hand. You will receive fluids and medicines to relax you and to control any pain you may have during the procedure. You will most likely be awake during the procedure.
6. The pre-procedure area staff may clean and shave the appropriate area for your procedure. This may include the groin, wrist or arm area.
7. You will next be taken to the Cath lab procedure area located on the 3<sup>rd</sup> floor. Your friends or family members can stay in the waiting area on G3.3604 (floor 3 near the F elevator).

## Procedure

1. You will be given an intravenous sedative which will make you feel relaxed, but you will stay awake. You will also be given a local anesthetic to numb the area where the catheter will

be inserted.

2. Your doctor will insert the catheter into your groin, arm or neck. The catheter will be passed through the blood vessels toward your heart. Special x-rays are used to follow the position of the catheter. You will not feel the catheter as it passes through your blood vessels.
3. Your doctor will guide the tip of the catheter to exact positions in the heart and its blood vessels. The catheter is attached to a device that measures blood flow and blood pressure in different places in the heart and blood vessels.
4. If pictures of the heart chambers, valves, or coronary arteries are needed, a special kind of liquid (called contrast) is injected through the catheter. X-rays are taken while the contrast moves through your artery. X-rays are taken so fast they form a movie that shows how the contrast is moving through the artery. This is called an angiography.

Tell the doctor or nurse if you feel:

- An allergic reaction (itching, tightness in the throat, shortness of breath)
  - Nausea
  - Chest discomfort
5. At the end of the procedure one of the Cath lab staff members will remove the catheter and put pressure on the area where the catheter was inserted (the puncture site) to control any bleeding. The doctor may also use a special device to help you move around better after the procedure is completed.



## **Follow up Care**

If you are an outpatient, and a closure device was not used, manual pressure will be applied for 10 to 20 minutes to form a clot at the site to prevent bleeding. After the manual pressure was applied you will be required to lie on your back, keep your head flat and keep your leg straight for 2-6 hours. A recovery nurse will be with you and monitor your recovery.

### **Cardiac Catheter Lab**

Monday through Friday 7:00 a.m. to 4 p.m.

Floor 3, Elevator F

713-792-0974

### **MD Anderson Emergency Center**

After 4 p.m. and on weekends

Floor 1, Main Building