2. What should I expect during a heart catheterization?

During a cardiac catheterization, you're kept on your back and moderately sedated. That way you can follow your doctor's instructions during the procedure if needed. You're given medicine to help you relax, which may make you sleepy.

Your doctor will numb the area on the arm, groin (upper thigh), or neck where the small plastic tube (catheter) will enter your blood vessel. A needle is used to make a small hole in the blood vessel. Through this hole your doctor will put a tapered tube called a sheath.

Next, your doctor will put a thin, flexible wire through the sheath and into your blood vessel. This guide wire is then threaded through your blood vessel to your heart. The wire helps your doctor position the catheter correctly. Your doctor then puts a catheter through the sheath and slides it over the guide wire and into the coronary arteries.

Special x-ray movies are taken of the guide wire and the catheter as they're moved into the heart. The movies help your doctor see where to position the tip of the catheter. When the catheter reaches the right spot, your doctor then uses it to conduct tests or treatments. For example, your doctor may perform angioplasty and stenting.

During the procedure, your doctor may put a special dye in the catheter. This dye will flow through your bloodstream to your heart. Once the dye reaches your heart, it will make the inside of your heart's arteries show up on an x ray called an angiogram. The test is called coronary angiography.

Coronary angiography can show how well blood is being pumped out of the heart's main pumping chambers, which are called ventricles (VEN-trih-kuls). An x ray taken when the dye is in the heart's ventricles is called a ventriculogram. (The procedure is called ventriculography.) When the catheter is inside your heart, your doctor may use it to take blood samples from different parts of the heart.

To get a more detailed view of a blocked coronary artery, your doctor may do intracoronary ultrasound. For this, your doctor will thread a tiny ultrasound device through the catheter and into the artery. This device gives off ultrasound waves that bounce off the artery wall (and its blockage) to make an image of the inside of the artery.

If the angiogram or intracoronary ultrasound shows blockages or other possible problems in the heart's arteries, your doctor may use angioplasty to open up the blocked arteries.

After your doctor does all of the needed tests or treatments, he or she will pull back the catheter and take it out along with the sheath. The opening left in the blood vessel will then be closed up and bandaged. A small weight may be put on top of the bandage for a few hours to apply more pressure. This will help prevent major bleeding from the site.