











Transradial Catheterization

A less invasive, lower-risk option to diagnose & treat arterial disease

Transradial catheterization is a new form of cardiac catheterization that is gaining popularity. Cardiac catheterization is a medical procedure used to help diagnose and treat certain heart conditions or to assess the causes of chest pain. Typically, the catheter is inserted into a vein in the groin called the femoral artery, but with transradial catheterization, the catheter is threaded through a vein in the wrist: the radial artery.

What is a catheter and what is it used for in cardiac catheterization?

A catheter is a long, thin, flexible tube made of plastic or rubber. It is inserted through a sheath placed in a blood vessel so that doctors can administer tests or treatments for your heart. Special x-ray movies are used to help guide the physician as he or she places the catheter in the correct location in your heart.

The procedure is commonly carried out in a hospital with local anesthetics, and causes little to no pain. A common test is called coronary angiography, for which your doctor will administer a special type of dye through the catheter. The dye will flow through your blood vessels to your heart, and will cause your

arteries to be visible on X-ray images. The images can reveal plaque in your arteries, which may narrow or even block blood flow to your heart. This is a common symptom of coronary heart disease or coronary artery disease.

For a more detailed picture of a blocked artery, ultrasound can also be used with cardiac catheterization to visualize blockages in the arteries. Ultrasound is painless and uses sound waves to create detailed images of your blood vessels. If your ultrasound reveals blocked arteries, your doctor may use angioplasty or stenting to treat them.

After all of the tests and treatments have been completed, the catheter is withdrawn and the blood vessel is closed and bandaged.

What are the advantages of transradial catheterization as opposed to traditional femoral (groin) catheterization?

Transradial catheterization patients significantly less recovery time than patients who have a catheter inserted in the groin, which requires bed rest for several hours after the procedure. The use of the radial artery in the wrist also reduces the risk of bleeding complications, which occur in about 10 percent of groin angiography procedures. The radial artery is very close to the skin surface, so any bleeding can be controlled quickly and easily. Another benefit is a reduced risk of nerve damage, due to the easy accessibility of the radial artery as compared to the femoral artery. Most patients can get up and walk out of the catheterization lab shortly after the procedure. Transradial catheterization is not appropriate for all patients, including patients with hand injuries, poor hand circulation, or damage to the radial artery.

Despite the benefits, around 90% of all catheterizations are still femoral. In part, this is because far fewer physicians are trained in the transradial catheterization technique. This is beginning to change, and more and more doctors are able to perform the procedure. Patients are encouraged to ask their doctor about transradial catheterizations and if it is an appropriate approach for their needs.