ENDOVASCULAR PROCEDURES

Endovascular procedures use the most advanced x-ray and monitoring equipment to perform diagnostic and interventional procedures during your evaluation and treatment.

Our physicians, nurses and technologists are highly trained and skilled to evaluate, treat and monitor your condition.

Peripheral Vascular Disease: Your doctor has probably told you that you may have peripheral artery disease. Peripheral artery disease means that the blood vessels, which supply your upper and lower body and/or kidneys, are either narrowed or blocked. This reduction of blood flow to the affected extremity may cause cramping in those muscles. The reduction of blood flow to your kidneys may result in high blood pressure not controlled by medications or kidney dysfunction. Prior to angiography your physician will explain the procedure to you and answer any questions or concerns you may have.

General Information about Procedural Devices: A catheter is a thin, flexible tube that can be inserted in veins and arteries to enable diagnostic tests and interventional procedures as well as to deliver fluids, nutrients, and medications.

There are a number of procedures available to treat peripheral artery disease. Two of these are the use of an angioplasty balloon and/or implantation of a peripheral stent. An angioplasty balloon, which is a small inflatable balloon, can be used with the stent or by itself. The balloon reduces the narrowing until it no longer interferes with blood flow. The arterial stent is a small metal slotted tube or mesh structure that is implanted to keep the peripheral artery open. A stent may help to reduce the rate of narrowing of the treated segment of your peripheral artery.

How To Prepare and What To Expect: Prior to your procedure, your doctor will review the purpose, potential benefits and possible risks of implantation of a vascular stent and/or use of an angioplasty balloon.

The day of your procedure you will be registered or admitted to the hospital. It may be necessary to have a chest x-ray, an EKG, and/or blood tests performed. You will be asked to dress in a hospital gown with all underclothing removed. You would have been told not to eat food for 8 hours before procedure and only to have clear liquids up to 2 hours before procedure, unless directed by your
doctor. An intravenous line (IV) will be started before your procedure. This IV will be used to give you medications and sedation.

Prior to the procedure, you will be asked to go to the bathroom and urinate. You may be given a pre-op medication, if the doctor has ordered it.

While you are in the procedure area, your family and/or friends will be encouraged to wait in the Intensive Care Unit (ICU) or Coronary Care Unit (CCU) waiting room. They will be able to visit you when you are recovering from the procedure. If your procedure is done in medical imaging, your family will be asked to wait in the medical imaging lobby.

**THE PROCEDURE - INITIAL DIAGNOSTIC STUDY**

You will be transported to the procedure area where you will be moved to the radiographic table. Monitoring electrodes, blood pressure cuff and an oxygen monitor will be placed on you for continuous monitoring during the procedure.

Most procedures are associated with only mild discomfort. This includes brief pain associated with local anesthetic, or infrequent nausea. If at anytime during the procedure you feel sick to your stomach or have pain, be sure to tell the monitoring staff.

Your gown will be raised to your abdomen to expose your groin, while a blanket will cover the rest of your body. You will be positioned to expose the affected body part and groin. Your groin may be shaved and will be washed with a special antibacterial solution to prevent infections. You will be reminded to keep your hands at your sides so you do not contaminate the cleansed area. A sterile sheet will be positioned over the puncture site. You may receive medications to relax you through the IV. Your doctor will inject a local anesthetic and a catheter will be placed in the blood vessel (groin, wrist, or arm.)

The physician will use what is called fluoroscopy to monitor the placement of the catheter. A solution called “contrast” will be injected. This solution is what shows up on the monitoring equipment. You may feel a sensation of spreading warmth and/or an urge to urinate, but this feeling will last less than a minute. You will be asked to take deep breaths and hold your breath for short periods of time. You may also be asked to cough. A series of x-rays will show how blood is flowing in your arteries and provide a detailed image of narrowed or blocked vessels.

**Procedural Intervention- May Not Apply To All Patients:** The narrowed segment in your peripheral artery may be treated with a balloon angioplasty alone or utilized before the stent is implanted. After the artery is opened, a stent may be delivered to the narrowed segment of your artery. The balloon will be inflated and the stent will be deployed along the inner lining of the artery at the site of the narrowing or blockage. During the inflation of the balloon, you may feel mild pressure in your groin, back, or treated extremity. This pressure lasts for only a
few moments before it is relieved. The procedure generally lasts from one to two hours.

**After the Procedure - All Patients:** With the catheter in place, you will be moved to the cardiac observation unit or to the medical imaging recovery area, if your procedure was performed in medical imaging. The nurse or technician will then remove the catheter and pressure will be held at the puncture site for ten minutes or longer. Occasionally a special closure device is used in the procedure room that decreases the length of time pressure is held. Relax while the pressure is being held. A dressing may then be applied to your puncture site. Your puncture site will be observed by the nursing staff to assure there is no bleeding or swelling. You should immediately report any pain, swelling, or any feeling of pressure or wetness. The nursing staff will also monitor your blood pressure for several hours and will check the pulse in your foot.

For several hours following the procedure, you will be asked to limit your activity and lie flat. Be sure to keep your leg(s) straight. At this time, you’ll be able to eat and will be encouraged to drink liquids to help the body flush the contrast solution through the kidneys.

Later, your physician will review your films and discuss the findings with you and/or your family. The staff is willing to answer your questions at any time before, during or after the procedure.

**Medications to Note:** Most patients receiving a peripheral vascular stent will be treated with IV heparin in addition to other medications specifically tailored for you by your doctor. Heparin helps to suppress the activity of clotting components of the blood that have a tendency to stick to the metal surface of the stent.

**Questions? Call us at:**

St. Luke’s Regional Medical Center (208) 381-9090

St. Luke’s Coronary Observation Unit (208) 381-3560

If procedure is performed in St. Luke’s Medical Imaging Department (208) 381-2400

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