

# LANCASTER RADIOLOGY ASSOCIATES, LTD.

## **INTERVENTIONAL RADIOLOGY**

### **What it is:**

Interventional radiology is a subspecialty of radiology in which minimally invasive procedures are performed by a radiologist using images to guide them. Some procedures are done for diagnostic purposes, while others are done as a form of treatment. Oftentimes, interventional radiology procedures are able to provide treatment where no surgical alternative is readily available. The procedures are typically done with needles or other tiny instruments like small tubes (called catheters), using imaging methods that can include Diagnostic Radiology (X-Rays), CT scans, ultrasound or MRI. The images provide guidance for the Interventional Radiologist to maneuver the instruments throughout the body.

Although specific uses and methods vary, cardiovascular procedures were found to be particularly well-suited for interventional radiology, and catheterization remains as one of the primary applications. Other common interventional radiology applications include uterine fibroid embolization and treatment for varicose veins.

### **What you need to know:**

Common interventional imaging methods include Diagnostic Radiology (X-Ray) fluoroscopy, CT scans, ultrasound and MRI. For that reason among others, the risks and benefits of interventional radiology procedures will vary. For instance, fluoroscopy and CT scans use ionizing radiation that may be potentially harmful to the patient and, in the case of fluoroscopy, the interventional radiologist. However, both methods have the significant advantages of accuracy and speed. Similarly, ultrasound can suffer from image quality and tissue contrast problems, but is also fast and inexpensive. Magnetic resonance imaging provides superior tissue contrast, but is costly and requires specialized instruments that will not interact with the magnetic fields present in the imaging volume. As with any medical procedure, you are encouraged to discuss potential risks and benefits with your physician.

### **How to prepare:**

Interventional Radiology can take many forms, from angioplasty to Diagnostic Radiology (X-Ray) guided breast biopsy. For that reason, each procedure will require different levels of preparation. In general, however, we recommend that you do not eat or drink anything after midnight the day before your procedure, so we can give you sedation medicine as needed. You should take your regular medications and may take small sips of water to wash them down, if needed. It is also recommended that you make arrangements to have someone drive you home after your procedure so that we can give you sedation medicine.