



# Steinberg Diagnostic Medical Imaging Centers

*"Where Imaging Revolves Around You"<sup>SM</sup>*

2950 S. Maryland Parkway  
Las Vegas, NV 89109

2767 North Tenaya Way  
Las Vegas, NV 89128

4 Sunset Way  
Henderson, NV 89014

(702) 732-6000

## ANGIOGRAPHY

### Patient information guide :

Thank you for choosing **Steinberg Diagnostic Medical Imaging Centers** to perform your **Angiography** examination. We realize you may have questions regarding your upcoming exam and hope this information will help explain the procedure to you. If you have further questions, feel free to call our office At (702) 732 - 6000.

### What is Angiography?

Angiography is a type of x-ray that is done to image blood vessels in various parts of the body, including the heart, brain, and kidneys, so as to determine whether the vessels are diseased, narrowed, enlarged or blocked altogether. After passing a catheter into an artery leading to the body area of interest, a contrast material is injected to highlight the vessels when x-rays are taken. Today many catheter angiographic studies have been replaced by less invasive methods such as computed tomography (CT) angiography and magnetic resonance (MR) angiography that do not require that a catheter be inserted. Catheter angiography still is widely used in patients who may undergo surgery, angioplasty, or stent placement.

### Common uses of this procedure.

Common reasons to do catheter angiography are to detect narrowing or blockage of a blood vessel, identify abnormally dilated blood vessels, and determine the site of internal bleeding. The procedure is able to:

- detect atherosclerotic disease in the carotid artery of the neck, which may limit blood flow to the brain and even cause a stroke.
- identify an intracranial aneurysm or other disorders of the blood vessels in the brain.
- evaluate disease in the renal artery or help prepare for a kidney transplant.
- determine the state of the aorta and detect an aneurysm of this vessel.
- identify a source of bleeding such as a stomach ulcer.
- help prepare for surgery on diseased blood vessels in the legs of patients who have severe leg pain when walking.
- show the extent and severity of atherosclerosis in the coronary arteries.

Surgeons sometimes use angiography to plan an operation such as coronary bypass surgery or to decide on the best surgical procedure. Using catheter angiography as an aid to see inside blood vessels, surgeons can repair diseased vessels from within using tiny instruments and inserting a stent to keep the vessel open

## How does it work?

The basic idea of catheter angiography is the same as a regular x-ray. The x-rays passed through the patient's body are absorbed to different degrees by various tissues, and each type of tissue has its own distinctive appearance. A stream of dye, or contrast material, is injected into the catheter to obtain a detailed picture of the artery. X-ray images are stored in a computer or captured on film. In this way the procedure can be viewed like a movie and played over as often as necessary.

## Benefits VS Risks of Angiography

BENEFITS	RISKS
Catheter angiography presents a very detailed, clear and accurate picture of the blood vessels. This is especially helpful when a surgical procedure or some percutaneous intervention is being considered.	You may have an allergic reaction to the dye, and this could lead to a skin reaction, a drop in blood pressure, difficulty breathing, or even loss of consciousness. All the medications necessary to treat an allergic reaction are kept in the Angio suite.
By selecting the arteries through which the catheter passes, it is possible to assess vessels in several specific body sites. In fact, a smaller catheter may be passed through the larger one into a branch artery supplying a small area of tissue or a tumor; this is called "superselective angiography."	There is a small risk that blood will form a clot around the tip of the catheter, blocking the artery and making it necessary to operate to reopen the vessel.
Unlike computed tomography (CT) or magnetic resonance (MR) angiography, use of a catheter makes it possible to combine diagnosis and treatment in a single procedure. An example is finding an area of severe arterial narrowing, followed by angioplasty and placement of a stent.	The kidneys may be injured when contrast material is eliminated through the urine. If kidney disease is already present it may become worse. Precautions are taken to reduce this risk, such as bloodwork and hydration.
The degree of detail displayed by catheter angiography may not be available by any other noninvasive procedure.	Rarely the catheter dissects the artery, causing internal bleeding. It also is possible that the catheter tip will separate material from the inner lining of the artery, causing a block "down stream."

## Patient Comfort

Injecting a local anesthetic may sting briefly, but makes the rest of the procedure pain-free. You will not feel the catheter in your artery, but when contrast material is injected you may have a feeling of warmth or, occasionally, a slight burning sensation. The most difficult part of the procedure may be lying flat for several hours after the procedure.

## Preparation Required

If you are to have a sedative before the procedure, you may be asked not to eat or drink anything

(except sips of water to take pills) for four to eight hours ahead of time. Some hospitals, however, allow clear fluids until shortly before the examination. Be sure that you have clear instructions from your health care facility. You probably will receive an intravenous (IV) sedative in preparation for angiography, and must not drive for 24 hours afterwards. Because an observation period is necessary before you can leave, you may be admitted to hospital for an overnight stay if you live more than an hour away. Certain blood tests are required before the test, to check kidney function and blood clotting factors are within normal limits.

If you will be going home the same day, you should arrange alternative transportation. After removing jewelry and donning a hospital gown, you should empty your bladder.

Before the procedure you will have to give your consent. This usually involves a face-to-face talk with a physician, but in some cases you will read a brief description of angiography or view a videotape instead. If you have any allergies, you should tell the physician before the exam begins. Also, the radiology staff should know if there is a possibility that you may be pregnant.

### **After the test**

The patient will be required to have 4 hours of no major physical activity after the test.

### **Results of the test**

At **SDMI**, we have a radiologist on site at all times so the test will be interpreted promptly. The results will be phoned, faxed, mailed, or delivered electronically to the referring physician. He/she will share the results with the patient. Many times the radiologist will go over the results of the test before the patient is discharged.

### **I am ready to schedule an appointment (requirements for appointment)**

To schedule an ANGIOGRAPHY Exam, Please call 732 - 6000