

Common Interventional Procedures and Definitions

Angiography	An X-ray exam of the arteries and veins to diagnose blockages and other blood vessel problems; uses a catheter to enter the blood vessel and a contrast agent (X-ray dye) to make the artery or vein visible on the X-ray.
Balloon angioplasty	Opens blocked or narrowed blood vessels by inserting a very small balloon into the vessel and inflating it. Used by IRs to unblock clogged arteries in the legs or arms (called peripheral vascular disease or PVD), kidneys (called portal hypertension), brain, or elsewhere in the body.
Biliary drainage and stenting	Uses a stent (small mesh tube) to open up blocked ducts and allow bile to drain from the liver.
Central venous access	Insertion of a tube beneath the skin and into the blood vessels so that patients can receive medication or nutrients directly into the blood stream or so blood can be drawn.
Chemoembolization	Delivery of cancer-fighting agents directly to the site of a cancer tumor while depriving the tumor of its blood supply; currently being used mostly to treat cancers of the endocrine system and liver cancers.
Embolization	Delivery of clotting agents (coils, plastic particles, gel, foam, etc.) directly to an area that is bleeding, or to block blood flow to a problem area, such as an aneurysm or a fibroid tumor in the uterus.
Fallopian tube catheterization	Uses a catheter to open blocked fallopian tubes without surgery; a treatment for infertility.
Gastrostomy tube	Feeding tube inserted into the stomach for patients who are unable to take sufficient food by mouth.
Hemodialysis access maintenance	Use of angioplasty or thrombolysis to open blocked grafts for hemodialysis, which treats kidney failure.
Needle biopsy	Diagnostic test for breast, lung and other cancers; an alternative to surgical biopsy.
Radiofrequency ablation	Use of radiofrequency (RF) energy to kill cancerous tumors.
Stent	A small flexible tube made of plastic or wire mesh, used to treat a variety of medical conditions (e.g., to hold open clogged blood vessels or other pathways that have been narrowed).
Stent-graft	Reinforces a ruptured or ballooning section of an artery (an aneurysm) with a fabric-wrapped stent, a small, flexible mesh tube used to "patch" the blood vessel. Also known as an endograft.
Thrombolysis	Dissolves blood clots by injecting clot-busting drugs at the site of the clot. Treats blood clots in the brain to reverse the effects of stroke; treats deep vein thrombosis in the leg to prevent permanent disability.

TIPS (transjugular intrahepatic portosystemic shunt)

A life-saving procedure to improve blood flow and prevent hemorrhage in patients with severe liver dysfunction.

Uterine fibroid embolization

Uterine fibroid embolization, also referred to as uterine artery embolization, is a minimally invasive interventional radiology treatment that cuts off the blood supply to the fibroids, causing them to shrink.

Varicocele embolization

A treatment for "varicose veins" in the scrotum, which can cause male infertility and pain.

Varicose Vein Treatment

The saphenous vein is sealed shut through the use of a laser or radio frequency non-surgically.

Vena cava filter

A tiny cage-like device that is inserted in a blood vessel to break up clots and prevent them from reaching the heart or lungs. Prevents pulmonary embolism.

Vertebroplasty

A pain treatment for fractured vertebra in which medical-grade bone cement is injected into the vertebra.

About Interventional Radiologists

Interventional radiologists are doctors who specialize in minimally invasive, targeted treatments that have less risk, less pain and less recovery time compared to open surgery. They use their expertise in interpreting X-rays, ultrasound, MRI and other diagnostic imaging studies to understand, visualize and diagnose the full scope of the disease's pathology and to map out the procedure tailored to the individual patient. Then during the procedure, they image as they go to guide tiny instruments, such as catheters, through blood vessels or skin, to treat diseases at the site of the illness nonsurgically.

Interventional radiology is a recognized medical specialty by the American Board of Medical Specialties. Interventional radiologists complete preliminary training in Diagnostic Radiology and advanced training in Vascular and Interventional Radiology. The American Board of Radiology certifies their specialized training.

For Further Information

For more information interventional radiology, or to find a local interventional radiologists, visit the SIR Web site at www.SIRweb.org.