



Banner Good Samaritan Medical Center

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Interventional Radiology

The Interventional Radiology department at Banner Good Samaritan Medical Center offers non-surgical treatment of disease by combining imaging expertise with advanced procedural skills. Interventional radiologists Kevin Hirsch, MD, David Wood, MD, and Charles Raker, MD, are board-certified physicians with additional advanced training in minimally invasive, targeted treatments performed using imaging to guide the procedure.

From varicose veins to cancer, many conditions that once required open surgery can be treated non-surgically by interventional radiologists. Through a small nick in the skin, physicians insert tiny catheters and miniature instruments that can be steered through the body's network of arteries or veins. These tools provide treatments at the site of illness and prevent the need for open, invasive procedures.

Interventional radiology procedures often provide alternatives to open surgery and have many advantages, including:

- Low risk
- Minimal pain
- Short procedure times
- Short recovery times
- General anesthesia is usually not required
- An alternative for patients who choose to avoid surgery.

Banner Good Samaritan interventional radiologists perform the full spectrum of minimally-invasive, image-guided, targeted procedures for a variety of disease states, including:

- **Cancer:** Radiofrequency ablation (RFA) uses heat to



Through the use of X-ray, ultrasound and other imaging techniques, interventional radiologists are performing minimally-invasive procedures to treat cancer, arterial disease and other conditions that formerly required open invasive surgery.

- kill lung, liver, and kidney tumors; Radioembolization provides the delivery of millions of microscopic radioactive glass beads directly into inoperable liver tumors through a tiny catheter steered into the artery that feeds the tumor. The beads become lodged within the tumor vessels, where they deliver the local radiation that causes tumor death. Chemoembolization uses tiny beads to deliver cancer-killing drugs directly into liver tumors.
- **Peripheral Arterial Disease:** non-surgical treatment of blocked arteries in the arms or legs .
- **Women's Health:** options for uterine fibroids, blocked fallopian tubes and pelvic pain.
- **Deep Venous Thrombosis:** treatment for blood clots that often develop in the legs and cause

damage throughout the body.

- *Varicose Veins*: procedures for both medical and cosmetic needs.
- *Spinal Fractures*: minimally invasive options for compression fractures due to bone loss from osteoporosis or cancer.

Some of the more recent advances in interventional radiology include:

- Radiofrequency ablation: probes placed directly into tumors use heat to kill cancer without harming the surrounding tissue.
- Cryoablation: probes placed directly into tumors use freezing temperatures to kill cancer without harming the surrounding tissue.
- Embolization: the delivery of drugs or radiation via the blood supply directly into a tumor.
- Stroke treatment: using catheters to treat blocked arteries in the brain to help limit the disabling effects of strokes.
- Clot-busting drugs that remove blood clots and prevent disability due to blocked arteries or veins anywhere in the body.
- Carotid artery angioplasty and stenting to prevent stroke.

The interventional radiologists consult with referred patients in an office setting to fully evaluate the

patient's condition and review treatment options.

Should they require a hospital procedure, patients and their families receive expert care by a friendly team that includes specialty trained technologists, nurses, and physician assistants. The patient care team features Bonita Jones, RN, MSN, an experienced clinical nurse specialist who provides each patient with personalized guidance through their customized treatment regimen.

A tradition of interventional excellence

Banner Good Samaritan's interventional radiologists have helped bring new techniques to the Southwest, including some milestones in the treatment of cancer:

- In 2001, Banner Good Samaritan conducted the first TheraSphere procedure in the western U.S., killing liver tumors by injecting microscopic radioactive beads into the tumor's blood supply.
- Later that same year, Banner Good Samaritan became the first center to accomplish a TheraSphere-liver transplant "downstage" in the U.S. when a local man with previously inoperable liver cancer became eligible for a liver transplant after successful TheraSphere treatment.
- In 2002, interventional radiologists conducted the first U.S. SIR-Sphere procedure at Banner Good Samaritan. Similar to TheraSphere, SIR-Sphere treats metastatic cancers that spread to the liver.

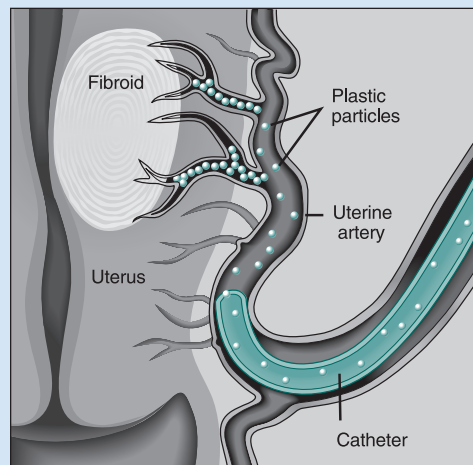
In Focus

Interventional procedure for Uterine Fibroid Embolization (UFE)

Uterine Fibroid Embolization (UFE) is a nonsurgical treatment performed by an interventional radiologist. This procedure is performed for the treatment of fibroid symptoms. UFE is an option increasingly sought by patients and referring physicians in order to avoid more invasive procedures such as hysterectomy or myomectomy. Fibroids are benign growths that develop in the muscular wall of the uterus. These fibroids are very common in females and it is estimated that between twenty to forty percent of women over the age of 35 years have fibroids. Symptoms include heavy bleeding, pelvic pain/bloating, constipation or bladder pressure.

The procedure involved placing a catheter through the artery until the catheter reaches the uterine artery and the branches feeding the fibroids using fluoroscopy. The interventional radiologist releases tiny particles the size of sand into the vessels supplying the fibroids. This procedure blocks the blood flow causing the fibroids to shrink while the uterus remains intact. The procedure takes approximately one to two hours to complete.

UFE is performed by an interventional radiologist and typically requires just an overnight stay in the hospital. Most women experience moderate pain during the first day of the procedure, which is controlled with IV pain medication. The majority of women are able to return to work within one week. Eighty to 90 percent of women have significant to total relief of symptoms after the UFE procedure. Case reports have shown that some women who have had the procedure have become pregnant.



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