

## UTERINE ARTERY EMBOLIZATION OVERVIEW

### WHAT ARE UTERINE FIBROIDS?

Fibroid tumors are noncancerous (benign) growths that develop in the muscular walls of the uterus. While fibroids do not always cause symptoms, their size and location can lead to problems for some women, including pain and heavy bleeding. They typically improve after menopause when the level of estrogen, the female hormone that circulates in the blood, decreases dramatically. However, menopausal women who are taking supplemental estrogen (hormone replacement therapy) may not experience relief from symptoms. Fibroids range in size from very tiny to the size of a cantaloupe or larger. In some cases they can cause the uterus to grow to the size of a five-month pregnancy. Fibroids may be located in various parts of the uterus.

There are three primary types of uterine fibroids:

#### SUBSEROSAL

develop in the outer portion of the uterus and expand outward. They typically do not affect a woman's menstrual flow, but can become uncomfortable because of their size and the pressure they cause.

#### INTRAMURAL

develop within the uterine wall and expand, making the uterus feel larger than normal. These are the most common fibroids. This can result in heavier menstrual flows and pelvic pain or pressure.

#### SUBMUSCOSA

are deep within the uterus, just under the lining of the uterine cavity. These are the least common fibroids, but they often cause symptoms, including very heavy and prolonged periods.

*You might hear fibroids referred to by other names, including myoma, leiomyoma, leiomyomata and fibromyoma.*

### WHAT ARE TYPICAL SYMPTOMS?

Depending on location, size and number of fibroids, they may cause:

- Heavy, prolonged menstrual periods and unusual monthly bleeding, sometimes with clots. This often leads to anemia.
- Pelvic pain.
- Pelvic pressure or heaviness.
- Pain in the back or legs.
- Pain during sexual intercourse.
- Bladder pressure leading to a constant urge to urinate.
- Pressure on the bowel, leading to constipation and bloating.
- Abnormally enlarged abdomen.

### WHO IS MOST LIKELY TO HAVE UTERINE FIBROIDS?

Uterine fibroids are very common, although often they are very small and cause no problems. From 20% to 40% of women age 35 and older have uterine fibroids of a significant size. African-American women are at a higher risk for fibroids.

### HOW ARE UTERINE FIBROIDS DIAGNOSED?

Fibroids are usually diagnosed during a gynecologic internal examination. Your doctor will conduct a pelvic exam to feel if your uterus is enlarged. The presence of fibroids is most often confirmed by an abdominal ultrasound. Fibroids also can be confirmed using magnetic resonance (MR) and computed tomography (CT) imaging techniques. Ultrasound, MR and CT are painless diagnostic tests. Appropriate treatment depends on the size and location of the fibroids, as well as the severity of symptoms.

## THE MOST COMMON DEFINITIVE TREATMENT OPTIONS INCLUDE:

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### UTERINE ARTERY EMBOLIZATION (UTERINE FIBROID EMBOLIZATION)

This minimally invasive, nonsurgical procedure will be described further in this brochure. Briefly, an interventional radiologist makes a tiny incision in the groin and passes a small tube through the artery. When the catheter reaches the uterine artery, tiny particles are released to stop blood flow to the fibroids, causing them to shrink.

### MYOMECTOMY

This is a surgical procedure that removes just the fibroids, not the entire uterus, and preserves the woman's ability to have children. There are several ways to perform myomectomy, including hysteroscopic myomectomy, laparoscopic myomectomy and abdominal myomectomy. While myomectomy is frequently successful in controlling symptoms, the more fibroids there are in a patient's uterus, generally, the less successful the surgery. In addition, fibroids may grow back several years after myomectomy.

### HYSTERECTOMY

Approximately one-third of the more than half-million hysterectomies performed in the United States each year are due to fibroids. In a hysterectomy, the uterus is removed either through the vagina by laparoscopic surgery or with an open surgical procedure. The operation is performed while the patient is under general anesthesia and requires three to four days of hospitalization and has a four to six week recovery period. Hysterectomy is the most common current therapy for women who have fibroids. It is typically performed in women who have completed their childbearing years or who understand that after the procedure they cannot become pregnant.



## WHAT IS UTERINE ARTERY EMBOLIZATION?

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Known medically as uterine artery embolization, this is an alternative to a hysterectomy for women. It is a minimally invasive procedure, which means it requires only a tiny nick in the skin. It is performed while the patient is conscious but sedated - drowsy and feeling no pain.

Fibroid embolization is performed by an interventional radiologist. Interventional radiologists are board-certified physicians with more than 10 years of intense training, who specialize in minimally invasive, image guided treatments. They offer the most in-depth knowledge of the least invasive treatments available coupled with diagnostic and clinical experience across all specialties.

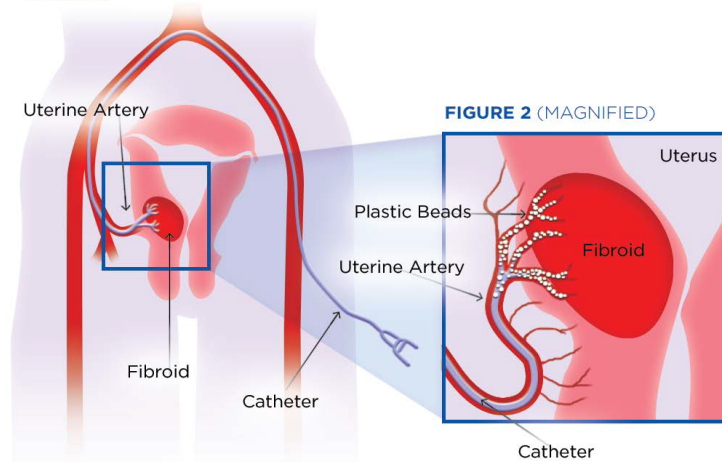
They use X-rays, Ultrasound, CT, and other imaging techniques to direct their treatments. Many treatments involve advancing a catheter in the body, usually within an artery, to treat the source of the disease internally.

The interventional radiologist makes a small nick in the skin (less than 1/4 of an inch) in the groin and inserts a catheter into an artery. The catheter is guided through the artery to the uterus using a X-ray. The interventional radiologist injects tiny plastic particles the size of grains of sand into the arteries that are supplying blood to the fibroid tumor, thereby cutting off the blood supply and causing the fibroid (or fibroids) to shrink.

Fibroid embolization can be performed on an outpatient basis with no hospitalization necessary. The major advantage over a hysterectomy is decreased recovery time, outpatient procedure, and no abdominal incisions. Painkilling medications are prescribed following the procedure to combat cramping and pain, which are common side effects and usually last 3-7 days. Total recovery generally takes one week.

Uterine artery embolization has been performed for over 20 years. It is clinically proven to provide relief of pain and bleeding related to fibroids.

FIGURE 1



## HOW EFFECTIVE IS UTERINE ARTERY EMBOLIZATION??

Studies show that up to 94 percent of women who have the procedure experience significant or total relief of pain and other symptoms. The procedure works even when multiple fibroids are involved.

## ARE THERE RISKS ASSOCIATED WITH THE REMOVAL OF FIBROID TUMORS?

Fibroid embolization is considered to be very safe. There are associated risks, however, as there are with almost any medical procedure. Most women experience pain and cramping in the first several hours following the procedure. Some experience nausea and fever. These symptoms can be controlled with appropriate medications. A small number of patients have developed an infection which usually can be controlled with antibiotics. It also has been reported that there is a 1 percent chance of injury to the uterus requiring hysterectomy. A small number of patients have begun menopause prematurely after embolization. Myomectomy and hysterectomy also carry risks, including infection and bleeding leading to transfusion. Patients who undergo myomectomy may develop adhesions causing tissue and organs in the abdomen to fuse together, which may contribute to infertility. You should talk with your doctor about possible side effects of any procedure you may choose.

For more information or to schedule a consultation, please call  
**609-652-6094, 732-206-8455 or 856-362-6056.**  
Schedule online at [www.VI-AMI.com](http://www.VI-AMI.com)