Uterine Artery Embolization to Treat Fibroids

What are fibroids?

A fibroid is made up of benign (non-cancerous) growth of smooth muscle within the uterus. About 30% of U.S. women over the age of 35 have fibroids. About 10 – 20% of these women have symptoms due to their fibroids. The symptoms caused by the fibroids depend upon their size and location.

- **Submucosal** – A fibroid that is under the inner lining of the uterus can often result in very heavy menstrual bleeding.
- **Intramural** – A fibroid within the wall of the uterus is the most common and results in an increase in the size of the uterus. Symptoms can include heavy menstrual bleeding and pelvic pain. This type of fibroid can cause bulk symptoms by pushing on the organs around it. Bulk symptoms include frequent urination (pushing on the bladder), constipation (pressing on the lower bowel), or lower back pain (pressure on the lower back).
- **Subserosal** – A fibroid under the outer lining of the uterus can also cause bulk symptoms.
**Are fibroids causing your symptoms?**

The key is to be certain that heavy menstrual bleeding and other symptoms are related to fibroids and not due to other causes. You should be sure to see your doctor, and have your symptoms checked. This will include a review of your health history, a physical exam including a pelvic exam, a Pap smear, and a blood test to check for anemia and other problems. Your doctor often will schedule an ultrasound exam (a test using sound waves) to look at the size of the uterus and for any fibroids. A Magnetic Resonance Image (MRI) of the pelvis may also be done to check the uterus, ovaries, bladder, and lower bowel.

**What options are available for fibroids?**

In the past, the treatment for fibroids has been a hysterectomy. Today, instead of surgery, doctors may choose to do a Uterine Artery Embolization (UAE). This treatment blocks the blood supply to the fibroid, causing it to shrink so that the symptoms go away or lessen. At the same time, it saves the uterus.

Once your doctor decides that fibroids are the cause of your symptoms, you have many choices for treatment. As you decide, keep in mind certain goals:

- Do you wish to keep your uterus?
- Do you wish to have children?
- Are you a few years away from menopause (perimenopausal)?

**Options**

1. **Watch and wait** until menopause begins. Fibroids are hormone sensitive. At menopause, estrogen levels begin to drop, and fibroids get smaller. If you are in perimenopause, this may be an option, although you may suffer with symptoms in the meantime.

2. **Hormone therapy.** Progesterone or GnRH agonists (gonadotrophin releasing hormone agonists such as Lupron®) can shrink the size of the uterus. The size of the fibroid will also shrink. This can improve the symptoms. The side effects of GnRH agonists are hot flashes and osteoporosis. It is best if GnRH agonists are only used for six months.

3. **Myomectomy** (surgery to remove only the fibroid) is an option for a woman who wishes to become pregnant in the future.

4. **Hysterectomy.** This would remove the uterus and the symptoms of the fibroids.

5. **Uterine artery embolization** (UAE)

**Are you a candidate for Uterine Artery Embolization?**

If you wish to keep your uterus, then UAE may be a good option. If you wish to bear children, you should know that there is a 4 – 20% chance of damage to your ovaries.
What is the success rate?

The success rate for reduced pain, bleeding, or bulk symptoms is about 85%.

What will happen before the UAE?

You will see an Interventional Radiologist (a radiology doctor who performs UAE) and a Nurse Practitioner in the IR (Interventional Radiology) clinic before your treatment. The nurse practitioner will take your health history and review your physical exam. The doctor will review your ultrasound or MRI. Both will talk with you about the procedure. If you have not had an MRI of the pelvis, one may be ordered. Once this is done and reviewed, we will review your case again to be sure that fibroids are the cause of your symptoms. At this point, if you are a candidate for UAE and you would like to proceed, you will be scheduled for UAE. You will need to spend a night in the hospital after your UAE. Plan to be off work for at least a week.

How is the Uterine Artery Embolization done?

Getting ready
When you arrive, you will be taken to the Radiology prep area to have two intravenous (IV) lines placed and a urinary catheter put in your bladder. You will be given antibiotics and an anti-nausea drug. When you are in the IR suite, either the right or left groin will be washed with a sterile soap. Your abdomen and legs will be covered with a sterile drape. A nurse will give you two IV drugs. One is for anxiety and the other is for pain relief. During the UAE, you will be drowsy and likely not remember it.

Placing the arterial catheter
The doctor will inject a small amount of medicine into your groin to numb it. This will sting at first. The doctor will then place a small hollow tube (sheath) through a small incision in your groin. The tube will be placed into the groin artery. A catheter will be passed through the tube where it will be guided into the uterine artery.
**Blocking the blood supply**
With the catheter in place, the doctor will inject small particles into the left uterine artery until there is very little blood flow in the artery. This is called the “embolization” of the uterine artery. At this point, some women experience some heavy cramping which is normal as the blood supply is cut off to the fibroid. The catheter will then be guided into the right uterine artery. Particles will be injected again to embolize the blood flow to this artery.

Once it is done, the tube will be removed from the groin. A pressure dressing will be placed on the groin for 15-20 minutes. You will be taken to a nursing unit and watched overnight. Most often, you will be sent home the next afternoon.

**What can I expect after the UAE?**

Most women have some symptoms after UAE. These symptoms include fever, nausea, vomiting, and mild to severe pelvic pain. The symptoms often begin shortly after the procedure, and are at their worst about 12 hours later. The pelvic pain may feel like very intense menstrual cramps. You will have a PCA pump to control the pain at first and then pain pills. The symptoms can last, to some degree, for a week or two. You will be sent home with a nonsteroidal anti-inflammatory agent such as ibuprofen that you should take every day as scheduled. You will also be given stronger pain medication to use for moderate to severe pain. You will also be given medicine to reduce the nausea or vomiting.

You will be able to leave the hospital once your pain is under control and you can get out of bed, eat, drink, and take these medicines.

You should not return to work for at least a week after the procedure. You will return to the IR Clinic in one to two weeks. Depending on how your symptoms are after the procedure, we may schedule a follow-up MRI of the pelvis in three to six months to measure the shrinkage of the fibroid. Shrinkage will occur over the next 3 – 12 months.

**Are there problems that might happen later?**

In a small number of patients with submucosal fibroids, the fibroid tissue may slough off and enter the inside of the uterus (endometrial cavity). When this happens, labor-like pain may start. The tissue may be passed through the cervix. However, a larger fibroid may not pass. In this case, you may need a D&C (dilatation and curettage) to remove this tissue. If this tissue is not removed, there is a chance that it will become infected and lead to serious problems.
Are there other complications?

1. Groin site hematoma (collection of blood at or near the needle entry site). This often goes away after a few months as your body will re-absorb the collection of blood.
2. Allergic reaction to the x-ray dye used (contrast reaction)
3. Damage to the kidneys from the x-ray dye (contrast induced renal failure)
4. Early menopause due to accidentally blocking off the blood supply to both ovaries (ovarian failure)
5. Blood clot in leg due to inactivity (deep venous thrombosis)

When to call Interventional Radiology

You should call the IVR if you:
- Have a fever over 100.5°F for 2 readings taken 4 hours apart.
- Have foul smelling vaginal drainage.
- Have labor-like pains.
- Have pain that is not controlled.
- Cannot keep any food or liquids in you.

Phone numbers

Interventional Radiology Department, Monday - Friday 8:00am to 4:00pm at 608-263-9729 prompt 3 and ask to be connected to the IR Nursing Coordinator.

Weekends, nights or holidays call (608) 262-2122 or toll free at 1-800-323-8942. This will give you the paging operator. Ask for the Interventional Radiology Resident on call. Give the operator your name and phone number with the area code. The doctor will call you back.

For further details, go to: http://www.scvir.org/fibroid/index.htm