

## Angiography: Uterine Fibroid Embolization

### *How to prepare and what to expect*

*This handout explains a uterine fibroid embolization procedure, how it is used, and what results to expect.*

### **What are uterine fibroids?**

*Fibroids* are *benign* tumors. Benign means that they are **not** cancer.

Uterine fibroids occur in the muscle tissue of the wall of the uterus. They are not harmful, but they may be painful. They can also cause heavy menstrual bleeding or pressure on the bladder and bowel.

### **What is uterine fibroid embolization?**

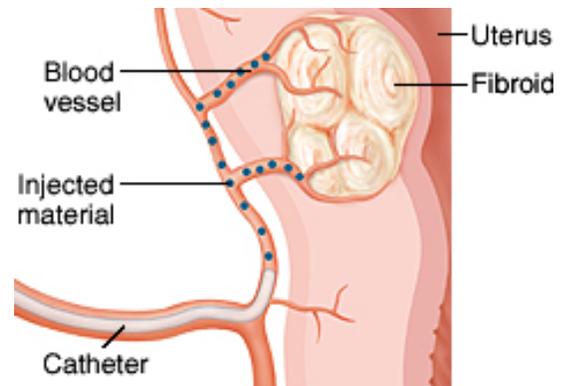
In *embolization*, a doctor injects a material into a blood vessel to block blood flow. *Uterine fibroid embolization* (UFE) is a way to treat fibroids of the uterus without surgery.

UFE uses X-rays to guide a *catheter* (tiny tube) into the arteries that feed blood to the fibroid. Small particles are then injected to block blood flow.

With its blood supply cut off, the fibroid no longer receives oxygen and nutrients. The fibroid stops growing and begins to shrink. Most times, this eases symptoms.

UFE is done by an *interventional radiologist*, a doctor with special training to do this procedure. It is much easier on the body than *open surgery*, which uses a scalpel to make an incision in the body.

We do not yet know how UFE affects fertility. Because of this, the best candidate for UFE is a woman with fibroid tumors who no longer wishes to become pregnant.



*During UFE, small particles are injected into blood vessels to block blood flow to the fibroid.*

Talk with your doctor about the benefits and risks of your having UFE.

## How is UFE used?

UFE is most often used to treat symptoms caused by fibroid tumors. It may be used instead of a *hysterectomy* to treat uterine fibroids. A hysterectomy is open surgery that removes the uterus.

UFE can also be used to stop severe bleeding in the uterus. This bleeding may occur after childbirth or be caused by malignant tumors.

## How does the UFE work?

UFE works because it cuts off the blood supply and nutrients to the fibroids. This often causes the fibroids to shrink, which then eases symptoms.

## How do I prepare?

If you want to have a UFE, talk with your gynecologist. If your doctor believes that your symptoms may be caused by fibroids, they will do *magnetic resonance imaging* (MRI) or an ultrasound of your uterus to assess the size and number of fibroids.

If we rule out other causes of your symptoms, you may be referred for a clinic visit with an *interventional radiologist* who is trained in UFE. During your visit, this specialist will tell you how to prepare for the procedure.

Plan to be off work for 1 to 2 weeks after the procedure. You may also need some help with household chores during this time.

## What can I expect after the UFE?

**Most** women will:

- Stay overnight in the hospital for pain control and monitoring.
  - While you are in the hospital, you may be able to use *patient-controlled analgesia* (PCA). This device allows you to control when you receive pain medicine.
  - You will also take pain and anti-inflammatory medicines by mouth. You will be given these medicines to use at home when you are discharged the next day.
- Have pelvic cramps for several days after UFE. Cramps are most severe during the first 24 hours after the procedure. They rapidly get better over the next several days.
- Have mild nausea and a low-grade fever for several days after the procedure.
- Recover from the effects of UFE in 1 to 2 weeks after the procedure, and can then return to normal activities. Some women find that it takes longer to fully recover.

- Find that it takes 2 to 3 months for the fibroids to shrink enough so that symptoms such as pain and pressure improve. Heavy bleeding usually lessens during the first menstrual cycle after the procedure.

## **How do I prepare for the procedure?**

### **Arrival Time**

If you are an *outpatient* (not staying in the hospital), a nurse will call you the afternoon before your procedure. If your procedure is on a Monday, the nurse will call you the Friday before. The nurse will:

- Tell you when to arrive at the hospital
- Remind you what to do on the morning of your procedure
- Answer any questions you have

### **Blood Tests**

You most likely will need blood tests done within 14 days of your procedure. We may do this when you arrive for your procedure. We will let you know if we need a blood sample before procedure day.

### **Interpreter Services**

Please have a family member or friend tell us right away if you:

- Do not understand or read English well
- Need help reading these instructions or understanding the details of the procedure

If needed, we will arrange for a hospital interpreter to help you. This service is free.

**A family member or friend may not interpret for you.**

### **Allergic Reaction to Contrast**

If you have ever had a bad reaction to *contrast* (X-ray dye) or other products that contain iodine, **call our nurse at one of the phone numbers on the last page of this handout.** You may need medicine for this allergy before the procedure.

### **If You Take a Blood-thinning Medicine**

If you take Lovenox, Coumadin, Plavix, or another blood-thinning medicine, you may need to stop taking it before your procedure. The length of time depends on the medicine you are taking. Some patients may need to stop taking their medicine for only 12 hours. Others may need to stop taking it for 5 to 7 days before the procedure.

If you have not been told when to stop taking your blood-thinning medicine, contact your primary care provider or the clinic that prescribed your medicine. Tell them you are having this procedure and ask when to stop taking your blood-thinning medicine.

**IMPORTANT:** If you have ever had a heart stent, prosthetic heart valve, or a pulmonary embolism, or if you have atrial fibrillation with a history of a stroke, **contact the provider who prescribes your blood-thinning medicine.** Ask how to change your dose before the procedure.

### **If You Have Diabetes**

If you take insulin or oral diabetes medicines, we will explain how to hold or adjust your dose for the day of your procedure.

### **Sedation**

For this procedure, you may be given a *sedative* (medicine to make you relax) through an *intravenous* (IV) line in one of your arm veins. You will be awake, but feel sleepy. This is called *conscious sedation*. You will still be sleepy for a while after the procedure.

Conscious sedation may not be a safe option for you if you have certain health conditions. Tell us **right away** if you:

- Have needed anesthesia for basic procedures in the past
- Have *sleep apnea* or other breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of prescription painkiller
- Have severe heart, lung, or kidney disease
- Cannot lie flat on your back for about 1 hour because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

If you have any of these health issues, we may need to give you different medicines. Instead of a sedative, you might receive:

- Only a *local anesthetic* (numbing medicine), such as lidocaine.
- A local anesthetic and a single pain or anxiety medicine. This is called *minimal sedation*.
- *General anesthesia* (medicine to make you sleep). This medicine is given by an anesthesia provider.

## Day Before Your Procedure

- You may eat as usual.
- Because you may go home the same day as your procedure, make plans for a responsible adult to drive you home from the hospital and stay with you the rest of the day. **You may not drive yourself home or take a bus, taxi, or shuttle by yourself.** If you need to take a bus, taxi, or shuttle, a responsible adult must ride with you.
- Plan to spend most of the procedure day in the hospital. Some women may need to stay overnight.

## Procedure Day

### At Home

- Other than the blood-thinning medicines or diabetes medicines that you were told to stop, take all of your other usual prescription medicines on the day of the procedure. Do **not** skip them unless your doctor or a nurse tells you to hold them.
- Do **not** take vitamins or other supplements. They can upset an empty stomach.
- Starting **6 hours** before your procedure, you may have **only clear liquids**. These are liquids you can see through such as water, broth, apple or cranberry juice, or weak tea.
- Starting **2 hours** before your procedure:
  - Take **nothing** at all by mouth.
  - If you must take medicines, take them with **only** a sip of water.
- Bring with you a list of all the medicines you take.

### At the Hospital

- Unless you are told otherwise, check in at Admitting on the 3rd (main) floor of the hospital. Admitting is to the right and behind the Information Desk in the lobby.
- You may have been told to go to the Outpatient Lab for a blood draw. The lab is behind the Cascade elevators, next to the Outpatient Pharmacy. You can go to the lab either before or after you check in at Admitting.
- After checking in at Admitting and having your blood drawn, take the Pacific elevators to the 2nd floor. When you leave the elevator, turn left and check in at Radiology reception.

- If there is a delay in getting your procedure started, it is usually because we need to treat other people with unexpected and urgent problems. Thank you for your patience if this occurs.
- A Radiology staff member will then:
  - Take you to a pre-procedure area
  - Give you a hospital gown to put on
  - Give you a bag for your belongings
- While you are in the pre-procedure area:
  - A family member or a friend can be with you.
  - A nurse will ask you some health questions, take your vital signs (such as heart rate), place an IV tube in your arm, and go over what to expect.
  - A radiologist or physician assistant will talk with you about the procedure. They will ask you to sign a consent form, if you have not already signed one, and answer any questions you have.
- A nurse will then take you to the radiology suite. This nurse will be with you for the entire procedure.

## **What happens during the procedure?**

- You will lie flat on your back on a narrow bed. The X-ray machines will move around and over you.
- We will use these devices to monitor you during the procedure:
  - **Wires** on your chest will help us watch your heart.
  - A **cuff** around your arm will let us check your blood pressure.
  - **Prongs** in your nose will give you oxygen.
  - A **probe** on one of your fingers will show us how well your body is using the oxygen.
- The entire medical team will ask you to confirm your name, go over your allergies, and tell you what we plan to do. This is for your safety. We do this for every procedure and every patient.
- Your nurse will give you the sedative to make you feel drowsy and relaxed before we begin.
- A radiology technologist will clean your skin around your neck or groin area with a special soap. We will then put special drapes over you to keep the area very clean.
- The radiology technologist might also need to shave the groin area before placing the drapes.

- If needed, an interpreter will be in the room or will be able to talk with you and hear you through an intercom.
- A local *anesthetic* (numbing medicine) will be applied at the site where the doctor will enter your artery. You will feel a sting for about 5 to 10 seconds. Then the area will be numb and you will not feel any sharp pain.
- Some wires and tubes (catheters) will be inserted into your artery and guided to the uterine arteries that feed blood to the fibroid. We will inject contrast through the catheters during the procedure. Contrast helps images show more clearly on the X-rays.
- Your doctor will choose the blood vessels to be *embolized* (blocked off) and then inject particles into them. This continues until all blood flow to the fibroid is blocked.
- After the procedure is done, the catheter will be removed. The artery will be closed, either with a special device or by hand.
  - If a device is used, you must lie completely flat on your back for 2 to 3 hours after the procedure.
  - If the radiologist cannot close the artery with a device, someone will apply pressure to the site for 15 to 20 minutes to stop bleeding. If this occurs, you will have to lie completely flat on your back for 6 hours.
- The skin puncture site will be cleaned. Pressure is held at the catheter site for 20 minutes to prevent bleeding.

## **What happens after the procedure?**

- We will watch you closely for a short time in the Radiology department. You will then go to a short-stay unit in the hospital. A family member, a friend, or your driver may go with you to this area.
- Patients are usually monitored closely for 2 to 6 hours. During this time, you must remain flat in bed to reduce bleeding from the groin site. If you have a PCA (patient-controlled analgesia), you can use it during this time. Or, nurses may give you medicines to take by mouth to help with any discomfort.
- Your responsible adult may escort you home when you:
  - No longer need to be monitored and are not in pain
  - Can walk and use the restroom
  - Can change your clothes
- Before you leave the hospital, a nurse will give you a written plan to follow at home. Please follow these instructions closely.

## When to Call

Call us **right away** if you have:

- A lot of bleeding at the neck or groin area, or any bleeding that does not stop after you apply pressure at the injection site for about 15 minutes
- Severe pain
- Fever higher than 101°F (38.3°C)
- Chills
- Shortness of breath that is getting worse
- New chest pain
- Dizziness
- Vomiting

## Who to Call

UWMC Radiology Patient Care Coordinator ..... 206.598.6897

Procedure scheduling ..... 206.598.6209

After hours (between 5 p.m. and 7 a.m.), and on weekends and holidays:

*Ask for the Interventional Radiology Fellow on call* ..... 206.598.6190

## Urgent Care

**If you need urgent care, go to the nearest Emergency Room or call 911 right away. Do not wait to talk with one of our staff.**

### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC Imaging  
Services: 206.598.6200
- UWMC Angiography:  
206.598.6209
- Harborview Imaging  
Services: 206.744.3105