

Uterine Artery Embolization (UAE)

What to expect

This handout explains the purpose of uterine artery embolization. It describes what you can expect before, during, and after treatment.

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 artery embolization?

In *embolization*, a material is injected into a blood vessel to block blood flow. *Uterine artery embolization* (UAE) is a way to treat fibroids of the uterus without surgery.

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

UAE is done by an *interventional radiologist*, a doctor or advanced practice provider with special training to do this procedure.

How does UAE work?

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

How is UAE used?

UAE 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 a surgery that removes the uterus.

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

How do I prepare?

If you want to have UAE, 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.



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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 UAE. 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 UAE?

Most patients 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 UAE. Cramps are most severe during the first 24 hours after the procedure. They rapidly get better over the next several days.
- Have mild nausea, body aches, and a low-grade fever for several days after the procedure.
- Some patients can experience some mild spotting as some of the embolized fibroids can bleed.
- It is common to experience changes in the timing of your menstrual cycle after UAE. Your period may be late or irregular after UAE.
- Recover from the effects of UAE 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.

Before Your Procedure

A nurse will call you within 5 days of your procedure. The nurse will give you important instructions and answer any questions you have.

- If you do not understand English well enough to understand the instructions from the nurse or the details of the procedure, tell us **right away**. We will arrange for a hospital interpreter to help you. A family member or friend **cannot** interpret for you.
- Most patients need blood tests done before this procedure. We may be able to do your blood tests when you arrive for your procedure. We will tell you if we need a blood sample before that day.
- If you take any blood-thinning medicines (such as Coumadin, Lovenox, Fragmin, or Plavix), you may need to stop taking the medicine for 3 to 9 days before your procedure. **Do NOT stop these medicines unless your doctor or nurse has told you to do so.** We will give you instructions as needed.

- You must arrange for a responsible adult to drive you home after your procedure and stay with you the rest of the day. You cannot drive yourself home or take a bus, taxi, or shuttle alone.
- You will need to take a urine pregnancy test unless you have had a *sterilization* (tubal ligation or hysterectomy).

Sedation

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

For some people, using moderate sedation is not safe. If this is true for you, a member of the anesthesia team will evaluate your health and decide the appropriate level of sedation for your procedure.

Let us know **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 an opioid pain medicine
- 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)

The day of your procedure

To prepare for sedation, follow these instructions exactly. Starting at midnight, the night before your procedure:

- Do not eat or drink anything.
- Do not take any of the medicines that you were told to stop before this procedure.
- If you must take medicines, take them with only a sip of water. Do not skip them unless your doctor or nurse tells you to.
- Do not take vitamins or other supplements. They can upset an empty stomach.

Bring with you a list of all the medicines you take.

Please plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people who have unexpected and urgent health issues.

Thank you for your patience if this occurs.

At the Hospital

A staff member will give you a hospital gown to put on and a bag to put your belongings in. You may use the restroom at that time.

A staff member will take you to a pre-procedure area. There, a nurse will do a pre-procedure assessment. A family member or friend can be with you in the pre-procedure area.

An IV line will be started. You will be given fluids and medicines through the IV.

Your interventional radiology doctor will talk with you about the procedure, answer any questions you have, and ask you to sign a consent form, if you have not already done this.

What happens during the procedure?

- Your nurse will take you to the radiology suite. This nurse will be with you for the entire procedure.
- If you need an interpreter, they will be in the room or will be able to talk with you and hear you through an intercom.
- You will lie flat on your back on an X-ray table.
- X-rays will be taken during the procedure to help your doctor see your uterus and surrounding structures.
- We will place wires on your body to help us monitor your heart rate.
- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- Rubber prongs in your nose will give you oxygen. A probe on one of your fingers will show us how well you are breathing the oxygen.
- For your safety, the entire medical team will ask you to confirm your name, go over your allergies, and explain what we plan to do. We do this for every procedure and every patient.
- A radiology technologist will clean your skin around your neck and chest with a special soap. The technologist may need to shave some hair in the area where the doctor will be working. Tell this person if you have any allergies.
- Some wires and tubes (*catheters*) will be inserted into your artery. Your doctor will guide them to the uterine arteries that supply blood to the fibroid(s).
- Before the catheter is inserted into your artery, the doctor will inject a *local anesthetic* (numbing medicine). You will feel a sting for about 10 to 15 seconds. After that, the area should be numb and you should feel only minor discomfort.
- During the procedure, we will inject contrast through the catheters. Contrast helps images show more clearly on the X-rays.
- Your doctor will choose the blood vessels to be *embolized* (blocked off) and inject particles into them. This continues until all blood flow through the artery is blocked.
- After the procedure is done, we will remove the catheter. Your artery will be closed, either with a special device or by hand.
 - If a device is used, you must lie flat on your back and not move for 2 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 flat on your back and not move for 4-6 hours.

After your procedure

We will watch you closely for a short time while you recover from sedation. Then we will move you to a room on the short-stay unit on the hospital.

If you are an outpatient, plan to spend at least 1 night in the hospital. Most patients are sent home the day after the procedure. Some patients may need to stay 1 to 2 extra nights.

Once you are settled in your room:

- Your family member or friend will be able to be with you.
- You will need to rest flat on your back for 2 to 6 hours to allow your puncture site to heal.
- You will be able to eat and drink.

Before you get up to walk, we will assess you to make sure you can walk safely. A staff member will help you get out of bed.

You will be able to go home the same day when:

- You can eat, drink, and use the restroom
- Your nausea and pain are under control
- Your vital signs are stable
- You have a responsible adult to take you home and stay with you for the rest of the day

For 24 hours

The medicine that you were given to make you sleepy will stay in your body for several hours. It could affect your judgment. You may also be lightheaded or feel dizzy. Because of this, for 24 hours:

- Do not drive a car.
- Do not use machines or power tools.
- Do not drink alcohol.
- Do not take medicines such as tranquilizers or sleeping pills unless your doctor prescribed them.
- Do not make important decisions or sign legal documents.
- Do not be responsible for children, pets, or an adult who needs care.

To help your recovery:

- Do only light activities and get plenty of rest.
- Keep the groin puncture site covered with the dressing. Make sure it stays clean and dry.
- A responsible adult should stay with you overnight.
- Eat as usual.
- Drink lots of fluids.
- Resume taking your medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.

For 48 to 72 Hours

- Do not lift anything that weighs more than 5 to 10 pounds (a gallon of milk weighs almost 9 pounds).
- Do only moderate activities. This will allow your puncture site to heal.
- Avoid any strenuous activities that increase your breathing or heart rate.

Dressing Care

- For 24 hours, keep the puncture sites on your neck and groin covered with the dressing. Make sure it stays clean and dry.
- After 24 hours, remove the dressing and check the site for any signs that your wounds need care. See the list under “When to Call,” below.
- You may shower after 24 hours. Do not scrub the puncture site. Allow warm soapy water to run gently over the site. After showering, gently pat the site dry with a clean towel.
- Do not apply lotion, ointment, or powder to the site. You may apply a new bandage.
- If you apply a new bandage, change it every day for the next few days. Always check the site when you remove the bandage.
- Do not take a bath, sit in a hot tub, go swimming, or allow your puncture site to be covered with water until it is fully healed.
- You may have a little discomfort at the site for 1 to 2 days.

When to Call

Call us right away if you have:

- Mild fever, pain, redness, swelling at the puncture site or dizziness
- Mild shortness of breath, chest tightness or chest pain
- Any other non-urgent questions or concerns

Call 911 and go to the nearest emergency department if you have:

- Severe bleeding or any bleeding that does not stop after you have applied gentle pressure for about 15 minutes
- Drainage from your incision
- Fever higher than 101°F (38.3°C) or chills
- Shortness of breath that is getting worse
- New chest pain
- Dizziness
- Vomiting
- Yellowing of your eyes or skin

Who to Call

University of Washington Medical Center and Northwest Hospital

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department:

- Montlake: 206.598.6209, option 2
- Northwest: 206.598.6209, option 3

Harborview Medical Center

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department at 206-744-2857.

Questions?

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

UWMC – Montlake:

206.598.6209, option 2

UWMC – Northwest:

206.598.6209, option 3

Harborview Medical Center:

206.744.2857

After hours and on weekends and holidays:

Call 206.598.6190 and ask to page the Interventional Radiology resident on call.