

Pulmonary Angiography

What to expect

This handout explains the purpose of pulmonary angiography. It describes what you can expect before, during, and after treatment.

What is pulmonary angiography?

Pulmonary angiography is an X-ray of the blood vessels that supply the lungs. It is used to find a blood clot, also called a pulmonary embolism, in these blood vessels and for planning prior to surgery.

How is the procedure done?

This process is done by an *interventional radiologist*, a doctor or advanced practice provider who specializes in procedures that are guided by X-ray images.

- You will be awake for the procedure. We will apply an *anesthetic* (numbing medicine) to your skin. It will sting for 5 to 10 seconds. Then the area will be numb, and you will not feel pain.
- *Ultrasound* is used to find your jugular vein, located at the base of the neck above the collarbone.
- Your doctor will make a very small incision (less than ¼ inch long) and we will use X-ray images to thread a *catheter* (small plastic tube) into your jugular vein, past your heart, to the pulmonary artery. This is the artery that carries blood to your lungs.
- X-ray dye, also called *contrast*, is injected into your artery through the catheter. This dye helps the blood flow in your lungs show up better on X-rays. You may feel warmth when the dye is injected.
- We will then take X-ray images. Stay as still as you can while the X-rays are taken. You may be asked to hold your breath for 10 to 25 seconds at a time. The healthcare provider will tell you when to hold your breath and when to breathe.
- After the X-rays are taken, we will remove the catheter. We will put pressure on the insertion site for 5 to 10 minutes to stop bleeding.
- The whole procedure may take about 1-2 hours.

Possible Risks and Complications

- Infection or bruising around the catheter insertion site
- Problems because of X-ray dye, including allergic reaction or kidney damage
- Damage to a blood vessel by the catheter
- Pulmonary embolism because blood clots were released from blood vessel walls
- Short-term abnormal heartbeats



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Before Your Procedure

A nurse will call you within 5 days of your procedure. They 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), do **NOT** stop these medicines unless your doctor or nurse has told you to do so. We will give you instructions as needed.

The Day of Your Procedure

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

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.

We will start an *intravenous* (IV) line will be started. You will be given fluids and medicines through the IV.

We will do an EKG to look for any abnormalities with your heartbeat.

An 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.

After Your Procedure

You will be moved to a room on the short-stay unit on the hospital. 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

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 gentle activities. This will allow your puncture site to heal.

Dressing Care

- For 24 hours, keep the puncture site covered with the dressing. Make sure the site stays clean and dry.
- After 24 hours, remove the dressing and check the site for any signs that your wound needs 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

Who to Call

University of Washington Medical Center

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department at 206.598.6209, option 2.

Questions?

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

UWMC – Montlake:
206.598.6209, option 2

After hours and on weekends and holidays:

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