

## Ultrasound: Guided Aspiration to Remove Fluid

*About paracentesis and thoracentesis*

*This handout explains ultrasound-guided thoracentesis and paracentesis. Read this handout to learn about the procedures, how to prepare, what to expect during and after your procedure, and how to get your results.*

### What is an ultrasound-guided aspiration?

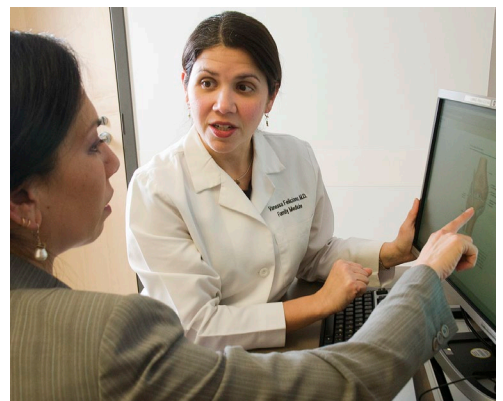
An *ultrasound* exam uses sound waves to take pictures of your body's organs and tissues. An *aspiration* is a procedure to remove extra fluid from a part of your body. If the fluid is in:

- Your belly, the procedure is called *paracentesis*
- Your chest cavity, it is called *thoracentesis*

These procedures may be done to ease your symptoms or to remove fluid to be tested in the lab. We will use a needle or *catheter* (a thin, flexible tube) to safely remove this fluid from your body.

### How does the procedure work?

- After gel is applied to your skin, the *sonographer* (ultrasound technologist) presses a *transducer* against your skin. A transducer is a hand-held device that sends and receives sound waves.
- As the sound waves bounce off your body's tissues, images of your tissues show on a monitor.
- Your radiologist will then use ultrasound to guide the insertion of a needle or catheter into your skin.
- The insertion usually only takes a few seconds or minutes. The aspiration may take minutes or 1 hour or longer. The length depends on why you are having the procedure and how much fluid is being removed.



*Talk with your doctor if you have any questions about your procedure.*

## How should I prepare?

### Medicines

- If you usually take aspirin or another *anticoagulant* medicine (blood thinners), follow the instructions Imaging Services scheduling staff gave you. They have checked with our clinic doctors about whether you should stop taking the blood thinners before your aspiration.
- Take your regular medicines as prescribed by your doctor, unless your doctor or the radiology clinic staff told you otherwise.

### Day of Your Procedure

- Eat lightly on the day of your procedure.
- If you will have a lot of fluid taken, you will not be able to drive yourself home after your exam. Your healthcare provider will tell you if you will need someone to drive you home.
- We may ask you to arrive before your procedure time if your doctor wants you to have an infusion of *albumin* for your procedure. Albumin is a protein that helps balance fluid levels in your body. It can help prevent side effects that can occur when large amounts of fluid are removed from your body. Imaging Services scheduling staff will give you instructions if you need albumin.

### At the Hospital

- We will ask you to change into a hospital gown for your procedure. All of your belongings will stay with you during your visit.
- The radiologist who does your procedure, or an assistant, will explain your procedure. They will describe possible problems and give you instructions and self-care tips for after your procedure. Be sure to ask all the questions you may have.
- You will need to sign a consent form that says you understand what we talked about and that you agree to have this procedure.

## How is the ultrasound-guided aspiration done?

- The sonographer will help you get into position on the ultrasound table. You will either lie down or sit, depending on where the fluid to be collected is and other factors.
- The first few ultrasound images will show your doctor the area that will be aspirated and the safest place to insert the needle or catheter.

- Once this location is confirmed, we will:
  - Mark the insertion site on your skin.
  - Scrub and disinfect your skin around the insertion site, and place a sterile drape over the area.
  - Inject a local *anesthetic* to numb the area.
  - Make the incision and insert the needle or catheter through it.
- We may ask you not to move so that your doctor can safely insert the needle into the right area. You may also need to hold still or hold your breath at other times during the procedure.
- Using the ultrasound image for guidance, your doctor will direct the needle or catheter to the correct site and remove the fluid. After we have enough fluid, we will remove the needle or catheter.
- After any bleeding at the insertion site has stopped, we will place a bandage over the site. Bleeding will be minor and you will not need stitches. It is very rare to have bleeding that requires treatment.
- If you have a lot of fluid removed, it can build up again. This means you may need to repeat the procedure in the near future.
- If a thoracentesis is done, we may order a chest X-ray after your procedure to make sure you do not have any problems such as *pneumothorax* (collapse of the lung). This is a rare but serious problem. If you have pneumothorax, we may need to place a drain in your chest and watch you for a while before you leave the hospital.
- Most patients may leave the hospital after their procedure.

### What will I feel during the procedure?

- When local anesthetic is injected, you will feel a pin prick from the needle. You may feel a burning sensation as the medicine is injected and takes effect. The area will quickly become numb.
- You may feel pressure from your doctor's hands or from the needle or catheter. You should not feel any pain.
- If you are having **thoracentesis** and a larger amount of fluid is removed, you may start to cough. If this happens, we will pause or stop the procedure.
- If you are having a **paracentesis** and larger amounts of fluid are removed, you may feel some relief from the pressure and weight the fluid was causing. You may also feel a little dizzy after the procedure. To lessen these problems, we may give you an infusion of albumin to help balance your body fluids.

## What should I expect after the procedure?

- Most patients may remove the bandage 24 hours after the procedure.
- You may shower the day after your procedure.
- Do **not** do any heavy lifting, a lot of stair climbing, or sports activities for 1 full day after your procedure.
- You may return to your usual activities 2 days after your aspiration, if you feel up to it.
- Tell your radiologist if you plan to travel by air within 24 hours after your procedure.
- Your needle site may be sore as the local anesthesia wears off. It should start to feel better 12 to 48 hours after your procedure.

## When to Call for Help

Severe bleeding from an aspiration is rare. It occurs in less than 3% of patients (fewer than 3 out of 100). Symptoms of bleeding include:

- Pain and swelling where the aspiration was done
- Rapid pulse (heart rate)
- Overall weakness
- Pale skin
- Chest pain or shortness of breath, especially after a thoracentesis

**If you have any of these symptoms, go to the nearest emergency room or call 911.** Call your doctor as soon as you can after you have received emergency treatment.

### Questions?

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

- UWMC - Montlake Imaging Services: 206.598.6200
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services: 206.668.2061

## Who interprets the results and how do I get them?

The radiologist will send a report to your doctor who referred you for your aspiration. It may take a few days to a week, or more, for your doctor to get all of your lab results. This is called the *pathology* report.

Your referring provider or nurse will talk with you about these results. You and your provider will then decide the next step, such as treatment for a problem, as needed.

You may also read your results on your MyChart page. If you need copies of your images on disc, call 206.598.6206.