

Procedures/Diagnostic tests: Interventional Radiology

Fine needle aspiration, fluid aspiration, and/or core biopsy

This information will inform you and your family about a diagnostic procedure called fine needle aspiration (FNA), fluid aspiration, and/or core biopsy. During this procedure, the radiologist takes a small sample of tissue, and/or fluid that your patient care team would like to know more about.

- A *fine needle biopsy* uses thin needle to collect cell samples.
- Fluid aspiration uses a thin needle to get fluid and cells.
- A *core biopsy* uses a special needle to take pieces of tissue the size of a pencil lead about ½ inch long.

This procedure is not surgery and is not very invasive. It is also safer and less traumatic to your body than a surgical biopsy. If you like, we will tell you what we are doing during every step of the procedure.

Why would I need a fine needle aspiration, fluid aspiration, or core biopsy?

This type of biopsy helps your doctor diagnose and treat your illness. It may also be a part of your specific clinical trial.

For known tumors, this biopsy helps your doctor assess the effect of treatment or get tissue for special studies being conducted at the National Institutes of Health.

Your doctor will discuss why you need a biopsy as well as the risks and benefits of this procedure. Any procedure involves some risk, but your health care team feels that the potential benefits outweigh the risks.

What happens during a fluid aspiration, FNA, and/or core biopsy?

To do this procedure, the radiologist inserts thin needles into the area to get samples of cells or tissue. These samples are sent to the lab to be examined. The radiologist uses scans such as CT (computed tomography) and/or ultrasound) to locate the sampling area.

We take precautions to decrease the chances of uncommon complications such as bleeding, infection, or pain.

Preparation

- You will have a history and physical (H & P) done no more than 30 days before your procedure.
- If you take aspirin, ibuprophen (Motrin), naproxen (Aleve), or blood thinning medicines (such as Coumadin or Plavix), ask your doctor if you should stop taking them, before your biopsy. Let the radiologist know when you took your last dose of the medication.
- You will to have blood samples drawn no more than 7 days before your procedure, or sometimes repeated the day of the procedure.
- Please do not eat or drink anything after midnight, although some physicians may allow “clear liquids” up to several hours before the procedure.

Please ask your doctor if you should take your regular medications before your procedure. In some cases you should take your medication at the usual time, with a small amount of water.

- Please tell all health care workers about any allergies to dye, latex or adhesives.

Immediately before the procedure

- The radiologist and nurse will discuss the procedure with you and answer your questions. When you understand what will happen, you will be asked to sign a consent form giving your permission to do the procedure.
- If you receive general anesthesia, you will meet the anesthesia team.
- You will change into a hospital gown, if you are not already wearing one.
- Any procedure where the skin is broken has a risk of infection or bleeding. To reduce these problems, we check your blood work before the procedure.

Procedure

- You will be placed on a stretcher, fluoroscopy or CT (computed tomography) scan table.
- Your nurse and/or interventional radiology technologist will attach you to monitors that assess your vital signs.
- Your nurse will start an intravenous line if you do not already have one.
- Your skin will be cleansed and draped with sterile towels. Do not to touch the cleansed site or towels.
- Patients generally receive local anesthesia, which may be combined with moderate sedation. This may make you drowsy, and your nurse will watch you closely to keep you comfortable.
- The radiologist will use ultrasound and x rays or CT scan to help locate the biopsy site. If the radiologist thinks the spot may be hard to see, he/she may decide to use a special “GPS-like” needle tracking system to place the needle.

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- The radiologist will alert you, then inject a local anesthetic to numb the area.
 - Small, thin needles will be passed into the mass. The needles may be inserted and withdrawn several times, or you may not notice this at all.
 - After your biopsy is done, one of our staff may hold pressure on the site for a few minutes. You will have a small dressing placed and be taken to your hospital room or the outpatient clinic for observation, possibly for 4 hours or longer. If you are an outpatient, you will then be discharged.

After the procedure

- You will rest in bed generally for 2 to 4 hours or according to the request of your radiologist or clinic doctor.
- Slowly resume your regular diet today, unless otherwise directed by your clinic staff.
- Rest today and limit your physical activity for 3 days unless otherwise directed by your clinic/floor staff.
- Lift nothing heavy (more than 10 pounds) for 3 days unless otherwise directed by your clinic/floor staff.
- You may remove the bandage tomorrow.
- You may shower tomorrow, but do not soak the skin for 48 hours.
- If you received sedation or anesthesia for your procedure, it may make you groggy or sleepy, so someone should stay with you overnight.
- If you received sedation or anesthesia do not drive a car, operate machinery, make legal/ important decisions, or drink alcoholic beverages for at least 24 hours or as directed by your clinic/floor staff.
- Ask your doctor when to resume taking aspirin, ibuprophen (Motrin), naproxen (Aleve) or blood thinners (such as Coumadin or Plavix).

Note: If you had a lung biopsy discuss precautions for flying in an airplane with your doctors before you plan to leave.

Special instructions

Please call your clinic doctor if you have any of these symptoms in the next 24 /48 hours.

- Fever/chills over 38.5 C or 101F or as directed by your clinic/floor staff
- Redness at the biopsy site
- Swelling or foul smelling drainage at the biopsy site
- Severe pain at the biopsy site

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- Increasing or severe chest pain
 - Weakness or dizziness
 - Shortness of breath/difficulty breathing
 - Coughing up bright red blood
 - Unable to urinate

After discharge if you have any symptoms that you feel are severe, call 911 or go to your closest emergency room and bring this information sheet with you.

Biopsy performed _____ Date: _____

Medications you received:

Other Instructions:

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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Questions about the Clinical Center?
<http://www.cc.nih.gov/comments.shtml>

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