Thyroid needle biopsy is a procedure to remove small samples of tissue or fluid from the thyroid gland. The samples are then examined under a microscope. The thyroid is a gland in the lower front area of the neck. It produces hormones that affect many important body processes, including growth and development, body temperature, and how the body uses food for energy (metabolism). This procedure is often done to help diagnose cancer, infection, or other problems with the thyroid.

During this procedure, a thin needle (fine needle) is inserted through the skin and into the thyroid gland. This is less invasive than a procedure in which an incision is made over the thyroid (open thyroid biopsy). Sometimes, an open thyroid biopsy may be done during a different surgery, such as surgery to remove a part or a whole section (lobe) of the thyroid gland (open lobectomy).

Tell a health care provider about:

- Any allergies you have.
- All medicines you are taking, including vitamins, herbs, eye drops, creams, and over-the-counter medicines.
- Any problems you or family members have had with anesthetic medicines.
- Any blood disorders you have.
- Any surgeries you have had.
- Any medical conditions you have.
- Whether you are pregnant or may be pregnant.

What are the risks?

Generally, this is a safe procedure. However, problems may occur, including:

- Infection.
- Bleeding.
- Allergic reactions to medicines.
- Damage to nerves or blood vessels in the neck.

What happens before the procedure?

Medicines
• Ask your health care provider about:
  ○ Changing or stopping your regular medicines. This is especially important if you are taking diabetes medicines or blood thinners.
  ○ Taking medicines such as aspirin and ibuprofen. These medicines can thin your blood. Do not take these medicines unless your health care provider tells you to take them.
  ○ Taking over-the-counter medicines, vitamins, herbs, and supplements.

General instructions

• You may have blood tests.
• You may have an ultrasound before or during the needle biopsy.

What happens during the procedure?

• You will be asked to lie on your back with your head tipped backward to extend your neck. You may be asked to avoid coughing, talking, swallowing, or making sounds during some parts of the procedure.
• To lower your risk of infection:
  ○ Your health care team will wash or sanitize their hands.
  ○ The skin over your thyroid will be cleaned with a germ-killing (antiseptic) solution.
• A local anesthetic (lidocaine) may be injected into the skin over your thyroid, to numb the area.
• An ultrasound may be done to help guide the needle to the desired area of your thyroid.
• A fine needle will be inserted into your thyroid. The needle will be used to remove tissue or fluid samples as needed. The samples will be sent to a lab for examination.
• The needle will be removed.
• Pressure may be applied to your neck to reduce swelling and stop bleeding.

The procedure may vary among health care providers and hospitals.

What happens after the procedure?

• It is up to you to get the results of your procedure. Ask your health care provider, or the department that is doing the procedure, when your results will be ready.

Summary

• Thyroid needle biopsy is a procedure to remove small samples of tissue or fluid from the thyroid gland.
• During this procedure, a thin needle (fine needle) is inserted through the skin and into the thyroid gland. This is less invasive than a procedure in which an incision is made over the thyroid (open thyroid biopsy).
• You will be asked to lie on your back with your head tipped backward to extend your neck. You may be asked to avoid coughing, talking, swallowing, or making sounds during some parts of the procedure.

This information is not intended to replace advice given to you by your health care provider. Make sure you discuss any questions you have with your health care provider.