



Thyroid Nodules: What You Need to Know

Thyroid nodules are small bumps on the thyroid gland (a butterfly-shaped organ in the front of the neck that regulates metabolism). In this handout, learn about the causes and symptoms of thyroid nodules in children, and how doctors diagnose and treat the condition.

WHAT ARE THYROID NODULES?

Thyroid nodules are small bumps on the thyroid gland (a butterfly-shaped organ in the front of the neck that regulates metabolism). Thyroid nodules can be solid or filled with fluid (**cystic**) or partly solid and partly cystic. Some nodules can be easily seen or felt when touching the front of the neck. Others may be harder to see or feel, and evident only on a thyroid ultrasound or thyroid scan. In rare cases, thyroid nodules can be cancerous.

WHAT ARE THE CAUSES OF THYROID NODULES?

There are many factors that contribute to the development of thyroid nodules. This can include genetic factors, your personal and family history, exposure to radiation, and the environment. Some children develop thyroid nodules with no clear reason.

WHAT ARE THE SYMPTOMS OF THYROID NODULES?

Most children with thyroid nodules do not have any symptoms until the nodule becomes very large or unless it is cancerous. If your child does have symptoms, these might include trouble swallowing or hoarseness (raspy voice). A swelling may be noted on the front of the neck.

HOW DO DOCTORS DIAGNOSE THYROID NODULES?

This often requires a thyroid ultrasound, a thyroid scan, and/or an **ultrasound guided fine needle aspiration biopsy**. This is a test during which the doctor uses a small needle to take a sample of tissue from the nodule and checks this under a microscope. Additional blood tests and imaging studies may also be necessary.

HOW DO DOCTORS TREAT THYROID NODULES?

Treatment for thyroid nodules depends on whether the nodule is **benign** (not cancerous) or **malignant** (cancerous).

Many benign thyroid nodules will stay the same size and only need periodic check-ins with the care team. Larger nodules are often removed surgically, particularly in children. Malignant thyroid nodules always need treatment. This includes surgery, administration of radioactive iodine, and sometimes additional measures.