

Hypothyroidism (Underactive Thyroid)

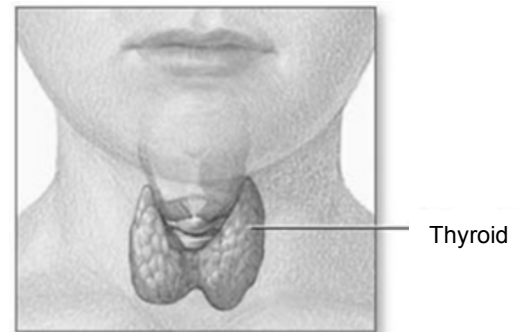
Hypothyroidism (hi po THI roid izm) happens when the body does not make enough thyroid hormone. This causes many body functions to slow down. Underactive thyroid is the most common thyroid problem. Sometimes hypothyroidism is caused by one's own immune system. This happens when the body makes proteins called antibodies that attack and damage the thyroid gland. Less often, a cyst, disease, surgery, radiation or injury to the thyroid gland can cause hypothyroidism.

The thyroid gland

The thyroid is a gland in the middle of the neck just below the Adam's apple. It is shaped like a butterfly (Picture 1). The thyroid gland makes two important hormones called thyroxine (T₄) and triiodothyronine (tri i o do THI ro nen, T₃). Another important hormone called thyroid-stimulating hormone (TSH) is made in the brain. It tells the thyroid gland to make T₃ and T₄.

Together these hormones help control:

- growth and development of the body and brain
- the work of the heart, liver, kidneys, and skin
- energy use (metabolism) by the body.



Picture 1 Thyroid Gland

All newborn babies are tested for hypothyroidism shortly after birth. If treatment is not started in the first several weeks of life, it can lead to mental retardation. There are two types of hypothyroidism found at birth:

- **Permanent hypothyroidism:** due to abnormal development of thyroid.
- **Transient hypothyroidism:** abnormal thyroid hormone levels at birth caused by exposure to thyroid medicine from the mother or by mother's antibodies. It usually goes away and does not need long-term treatment.

The doctor may not be able to decide whether your child's hypothyroidism is transient or permanent until the child is 2 to 3 years old. Most congenital hypothyroidism is permanent.

Symptoms

Symptoms of hypothyroidism in children are different from those in adults. Each child may have different symptoms – or no symptoms at all. These are the most common symptoms by age:

- Newborns – jaundice (yellow color of the skin), constipation and poor appetite
- Children – slow growth
- Teenagers – delayed puberty

Diagnosis

Your child will have blood tests to measure thyroid hormone levels. Depending on the results, the doctor may order special X-rays. An ultrasound of the thyroid gland uses sound to see pictures of the gland. X-rays using dye may be done to measure the function of the gland. A bone age X-ray may be done to see how your child's bones are growing.

Treatment

The treatment of underactive thyroid is simple and effective. Your child will be given medicine in pill form to take every day. It is important for the child to take it every day at the same time. It comes in many different doses. (See Helping Hand HH-V-240, *Levothyroxine*, for signs of too much or not enough medicine).

When to see the doctor

Since hypothyroidism is usually life-long, your child will see a doctor regularly. He or she will be seen by an endocrinologist (en do crin OL o gist), a doctor who specializes in the treatment of hormone issues. Your child will be seen every 3 to 4 months the first year. Clinic visits will be less frequent (6 months to 1 year apart) as your child gets older. The child will have exams, growth checks and blood tests to make sure the amount of thyroid medicine is correct. With the right treatment and the correct dose of medicine, your child's chances for normal growth and development are good.