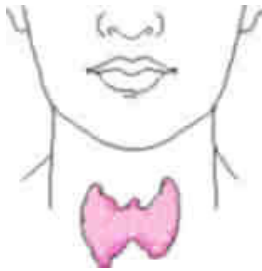


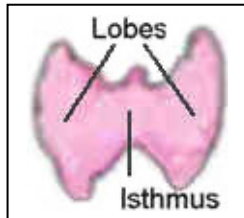
How You're Thyroid Works

"A delicate Feedback Mechanism"

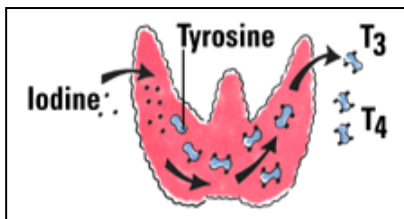


Your thyroid gland is a small gland, normally weighing less than one ounce, located in the front of the neck. It is made up of two halves, called lobes that lie along the windpipe (trachea) and are joined together by a narrow band of thyroid tissue, known as the isthmus.

womb) the thyroid normally migrates fails to migrate the back of the times it may rare).

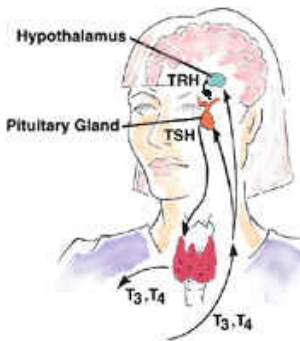


The thyroid is situated just below your "Adams apple" or larynx. During development (inside the gland originates in the back of the tongue, but it to the front of the neck before birth. Sometimes it properly and is located high in the neck or even in tongue (lingual thyroid) This is very rare. At other migrate too far and ends up in the chest (this is also



The function of the thyroid gland is to take iodine, found in many foods, and convert it into thyroid hormones: **thyroxine (T4)** and **triiodothyronine (T3)**. Thyroid cells are the only cells in the body which can absorb iodine. These cells combine iodine and the amino acid tyrosine to make T3 and T4. T3 and T4 are then released into the blood stream and are transported throughout the body where they control metabolism

(conversion of oxygen and calories to energy). **Every cell in the body depends upon thyroid hormones for regulation of their metabolism.** The normal thyroid gland produces about 80% T4 and about 20% T3, however, T3 possesses about four times the hormone "strength" as T4.



The thyroid gland is under the control of the pituitary gland, a small gland the size of a peanut at the base of the brain. When the level of thyroid hormones (T3 & T4) drops too low, the pituitary gland produces **Thyroid Stimulating Hormone (TSH)** which stimulates the thyroid gland to produce more hormones. Under the influence of TSH, the thyroid will manufacture and secrete T3 and T4 thereby raising their blood levels. The pituitary senses this and responds by decreasing its TSH production. One can imagine the thyroid gland as a furnace and the pituitary gland as the thermostat. Thyroid hormones are like heat.

When the heat gets back to the thermostat, it turns the thermostat off. As the room cools (the thyroid hormone levels drop), the thermostat turns back on (TSH increases) and the furnace produces more heat (thyroid hormones).

The pituitary gland itself is regulated by another gland, known as the hypothalamus. The hypothalamus is part of the brain and produces **TSH Releasing Hormone (TRH)** which tells the pituitary gland to stimulate the thyroid gland (release TSH). One might imagine the hypothalamus as the person who regulates the thermostat since it tells the pituitary gland at what level the thyroid should be set. Call 1.888.922.5672 for YOUR THYROID NUTRITION

NEEDS