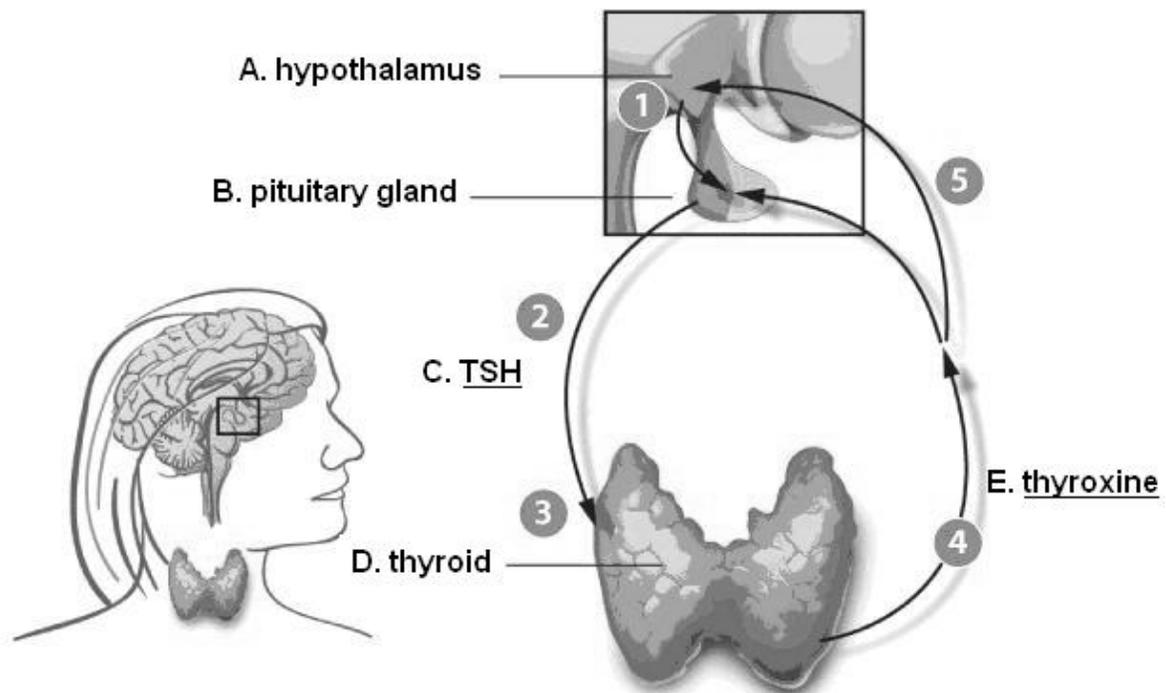


Diagram (A): A silhouette of the human body showing the location of the thyroid gland. Diagram (B): A close-up illustration of the thyroid gland. Diagram (C): A micrograph of the cells that make up the thyroid, which produce the hormone thyroxine, also called T_4 .



The regulation of the thyroid gland by negative feedback. (1) The hypothalamus secretes a releasing hormone that stimulates the anterior pituitary gland. (2) The anterior pituitary releases TSH into the bloodstream. (3) TSH targets the thyroid gland, (4) causing it to secrete thyroxine into the bloodstream. Thyroxine stimulates increased cellular respiration in target cells throughout the body. (5) High levels of thyroxine cause negative feedback on the pituitary and the hypothalamus, shutting down production of TSH.