



Libyan International Medical University
Faculty Of Business Administration

The Main Functions of Endocrine System

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Introduction

The endocrine system is a collection of ductless glands that produce hormones and secrete them into the circulatory system.

Endocrine glands work without ducts for carrying secretions towards target organs.

Instead, hormones can act as chemical messengers for a large number of cells and tissues simultaneously.

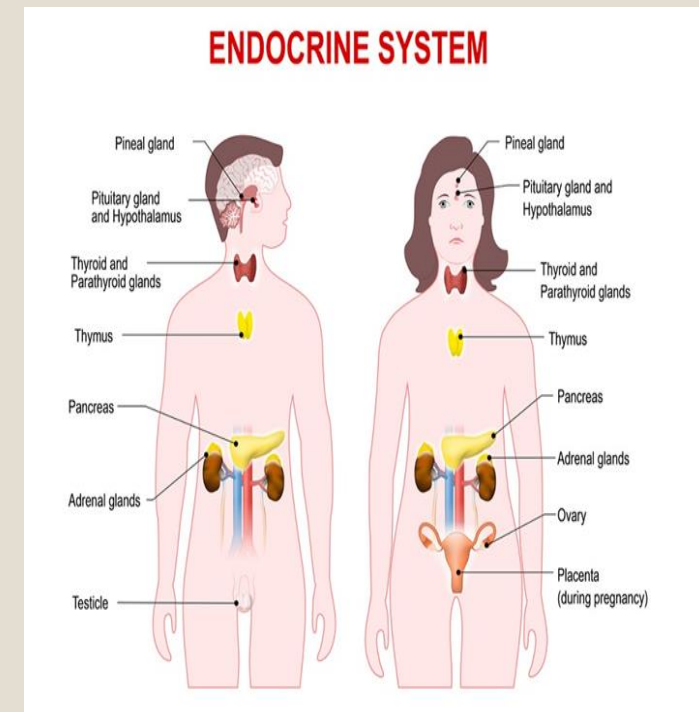
Functions

- Hormones affect nearly every process in your body, including:
- Metabolism (the way you break down food and get energy from nutrients).
- Growth and development.
- Emotions and mood.
- Fertility and sexual function.
- Sleep.
- Blood pressure.

Endocrine systems parts

The endocrine system consists of a number of organs – some of which have hormone production as their primary function, while others play important roles in other organ systems as well.

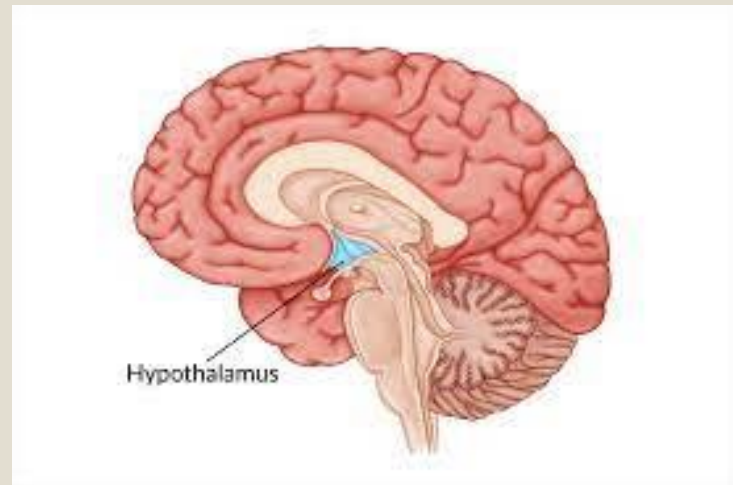
These include the pituitary and pineal glands in the brain, the thyroid and parathyroid glands in the neck, the thymus in the thoracic region, the adrenals and pancreas in the abdominal region and the gonads in the reproductive system.



Hypothalamus

This gland is located in your brain and controls your endocrine system.

It uses information from your nervous system to determine when to tell other glands, including the pituitary gland, to produce hormones.



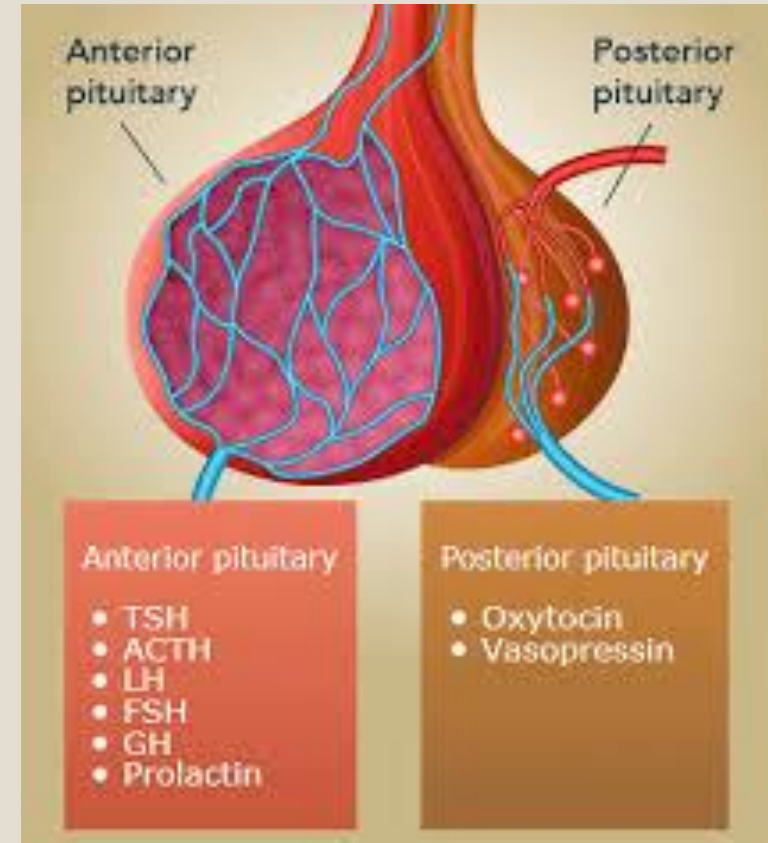
Pituitary

This little gland is only about the size of a pea, but it has a big job.

It makes hormones that control several other glands such as the thyroid gland, adrenal glands, ovaries and testicles.

The pituitary gland is in charge of many different functions, including how your body grows.

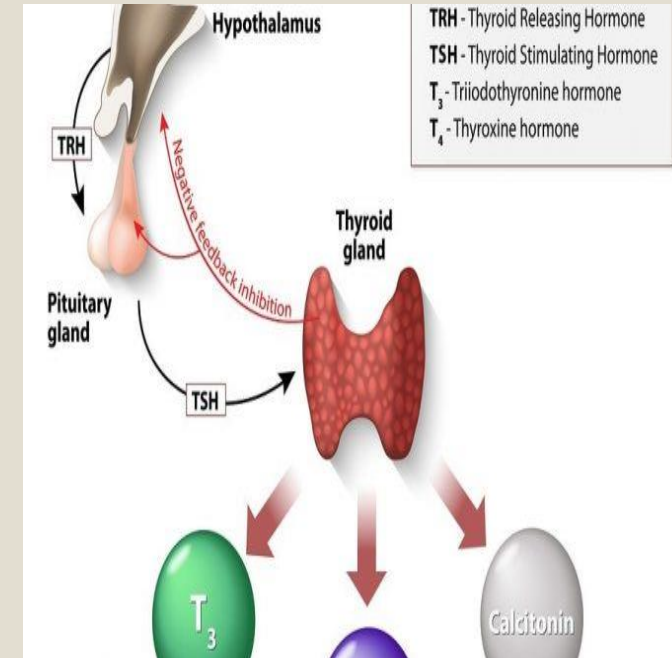
It's located at the base of your brain.



Thyroid

Your thyroid is a butterfly-shaped gland in the front of your neck.

It's responsible for your metabolism (how your body uses energy).

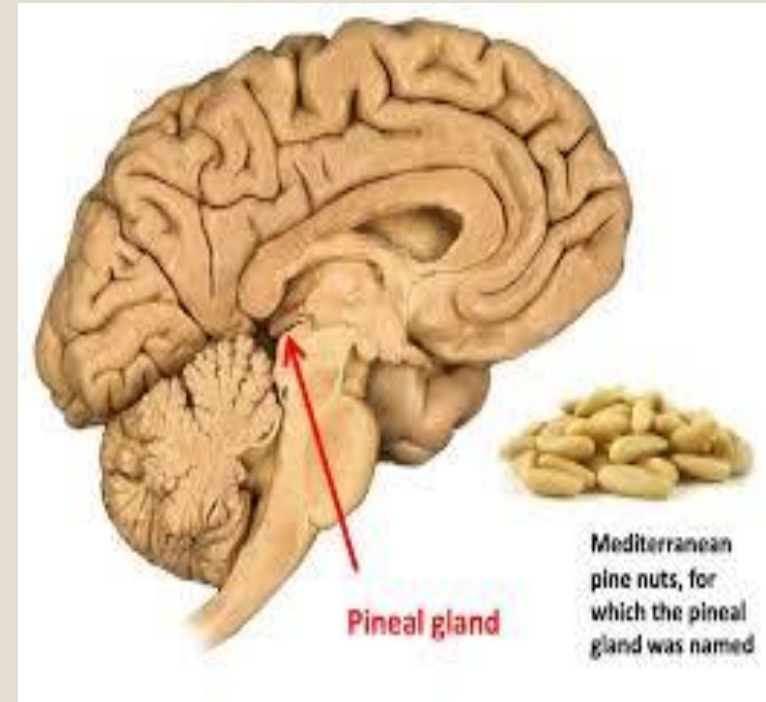


Pineal

-The pineal gland has a rich supply of adrenergic nerves (neurons sensitive to the adrenal hormone epinephrine) that greatly influence its function.

-This gland manages your sleep cycle by releasing melatonin, a hormone that causes you to feel sleepy.

-it's located behind the third cerebral ventricle in the brain midline (between the two cerebral hemispheres).



Summary

The endocrine system is incredibly complex, it consists of dedicated, specialised endocrine glands, such as the thyroid, parathyroids and adrenal glands,

together with tissues such as fat (adipose tissue) and bone that have a secondary endocrine function and also secrete a range of hormones.

It has been suggested that the microbial biome (the diverse plethora of micro-organisms colonising the human body) also functions as a “virtual endocrine organ”, secreting a cocktail of chemical signals that further influences human physiology



References

-Brody, B. (n.d.). The endocrine system and glands of the human body: Function and disorders. WebMD. Retrieved December 7, 2021, from


<https://www.webmd.com/diabetes/endocrine-system-facts>.

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<https://www.healthline.com/health/the-endocrine-system>.

A close-up photograph of a person in a white lab coat, likely a doctor, holding a black rectangular sign with both hands. The sign has the text "Thanks for your attention" written in white, sans-serif font. The doctor's stethoscope is visible around their neck, and a blue number "7" is on the right sleeve of the lab coat. The background is plain white.

Thanks for
your attention