



Endocrine system and its functions

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ABSTRACT

The endocrine system is a messenger system comprising feedback loops of the hormones released by internal glands of an organism directly into the circulatory system, regulating distant target organs. In vertebrates, the hypothalamus is the neural control center for all endocrine systems. In humans, the major endocrine glands are the thyroid gland and the adrenal glands. The study of the endocrine system and its disorders is known as endocrinology.

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Introduction

The endocrine system is the collection of glands that produce hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, sleep, and mood, among other things. Hormones are the body's chemical messengers. They carry information and directions from one set of cells to a different.

Hormones are produced by glands and sent into the bloodstream to the various tissues in the body. They send signals to those tissues to inform them what they're alleged to do. When the glands do not produce the right amount of hormones, diseases develop that can affect many aspects of life [1].

Many glands make up the endocrine system. The hypothalamus, pituitary gland, and pineal gland are in your brain. The thyroid and parathyroid glands are in your neck. The thymus is between your lungs, the adrenals are on top of your kidneys, and the pancreas is behind your stomach. Your ovaries (if you are a woman) or testes (if you are a man) are in your pelvic region.

Hypothalamus connects your system together with your systema nervosum. Its main job is to tell your pituitary gland to start or stop making hormones. Pituitary gland is that the master gland of system. It uses information it gets from your brain to inform other glands in your body what to try to to. It makes many important hormones, including growth hormone; prolactin, which helps breastfeeding moms make milk; antidiuretic hormone(ADH) (vasopressin), which controls vital sign and helps control body water balance through its effect on the kidney, corticotropin /ACTH: adrenocorticotropic

hormone, which stimulates the adrenal to form certain hormones, thyrotropin (TSH), which stimulates the assembly and secretion of thyroid hormones, oxytocin which helps in milk ejection during breast feeding; and luteinizing hormone, which manages estrogen in women and testosterone in men [2].

Pineal gland makes a chemical called melatonin that helps your body get ready to go to sleep. Pineal gland makes a chemical called melatonin that helps your body get ready to go to sleep. Parathyroid may be a set of 4 small glands behind your thyroid. They play a role in bone health. The glands control your levels of calcium and phosphorus [3].

Thymus gland

Thymus gland makes white blood cells called T-lymphocytes that fight infection and are crucial as a child's system develops. The thymus starts to shrink after puberty. Adrenal gland is best known for making the "fight or flight" hormone adrenaline (also called epinephrine), these two glands also make hormones called corticosteroids. They affect your metabolism, pulse, oxygen intake, blood flow, and sexual function, among other things.

Pancreas is part of both your digestive and endocrine systems. It makes digestive enzymes that break down food. It also makes the hormones insulin and glucagon. These make sure you have the proper amount of sugar in your bloodstream and your cells. If you do not make insulin, which is that the case for people with type 1 diabetes, your blood glucose levels can get dangerously high. In type 2 diabetes, the pancreas usually makes some insulin but not enough [4].

Ovaries in women, these organs make estrogen and progesterone. These hormones help develop breasts at puberty, regulate the cycle, and support a pregnancy. Testes in men, the testes make testosterone. It helps them grow facial and body hair at puberty. It also tells the penis to grow larger and plays a role in making sperm [5].

Conclusion

Endocrine system controls functions of almost all functions of our body by releasing the hormones necessary to elicit its actions.

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