



A microscopic image of a tissue section, likely stained with hematoxylin and eosin (H&E). The image shows various cellular structures and tissue layers, with pinkish-red areas and blue-stained nuclei. A white horizontal line is visible in the upper right corner, and a white plus sign is in the lower right corner.

Endocrine System in Medical Terminology

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1. Introduction to the Endocrine System

The endocrine system interacts with the nervous system to regulate and coordinate body activities. Integration of nervous and endocrine influences on the body occurs in the hypothalamus, a central nervous system (CNS) structure.

Functions: Homeostasis, metabolism, growth, reproduction, stress response.



2. Major Endocrine Glands



Gland	Medical Terminology	Function
Pituitary Gland (Hypophysis)	<i>Hypophys/o, Pituitar/o</i>	"Master gland" controlling other glands
Thyroid Gland	<i>Thyr/o, Thyroid/o</i>	Regulates metabolism
Parathyroid Glands	<i>Parathyroid/o</i>	Controls calcium levels
Adrenal Glands	<i>Adren/o, Adrenal/o</i>	Produces stress hormones (e.g., cortisol)
Pancreas (Islets of Langerhans)	<i>Pancreat/o</i>	Regulates blood sugar with insulin & glucagon
Pineal Gland	<i>Pineal/o</i>	Controls sleep-wake cycles (melatonin)
Thymus	<i>Thym/o</i>	Involved in immune system function
Gonads (Ovaries & Testes)	<i>Oophor/o (ovaries)</i> 	Produces sex hormones

3. Hormones and Their Medical Terminology

Hormone	Medical Terminology	Function
Growth Hormone (GH)	<i>Somatotropin</i>	Stimulates growth
Thyroid Hormones (T3, T4)	<i>Triiodothyronine (T3), Thyroxine (T4)</i>	Regulate metabolism
Insulin	<i>Insulin/o</i>	Lowers blood sugar
Glucagon	<i>Glucagon/o</i>	Raises blood sugar
Cortisol	<i>Cortic/o</i>	Stress response
Epinephrine (Adrenaline)	<i>Epinephrin/o</i>	"Fight or flight" response
Testosterone	<i>Test/o</i>	Male sexual development
Estrogen & Progesterone	<i>Estr/o, Progest/o</i>	Female reproductive function



4. Medical Abbreviations Related to Endocrinology

Abbreviation	Full Form
TSH	Thyroid-Stimulating Hormone
ACTH	Adrenocorticotropic Hormone
GH	Growth Hormone
FSH	Follicle-Stimulating Hormone
LH	Luteinizing Hormone
HbA1c	Hemoglobin A1c (diabetes test)
DM	Diabetes Mellitus
T3/T4	Thyroid Hormones



5. Many activities influenced by the endocrine glands

1. Reproduction and lactation
2. Immune system
3. Acid-base balance
4. Fluid intake and fluid balance
5. Carbohydrate, protein, and lipid metabolism
6. Digestion, absorption, and nutrient distribution
7. Blood pressure
8. Stress resistance
9. Adaptation to environmental change, for example, changes in temperature

6. Conclusion



An interconnected glandular system is vital for homeostasis. Dysregulation leads to systemic disorders; advancements in endocrinology improve patient outcomes.



Thank you for
your attention

