



كلية المستقبل الجامعة  
قسم تقنيات بصرية

# Medical Terminology

lecture 9-the endocrine system  
the nervous system

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# Lecture objectives

- Realise what are the endocrine system terms
- Understand what are the terms of the nervous system

# The Endocrine System

The Endocrine system (along with the nervous system) **controls** and **regulates** the **complex activities** of the body by secreting complex chemical substances (hormones) into **the bloodstream**. The functions are:

- To regulate the **metabolic functions** of the body.
- To regulate the **rate of chemical reactions** in various **cells**.
- To influence **the ability of substances to transport** themselves **through cell membranes**.

## Glands

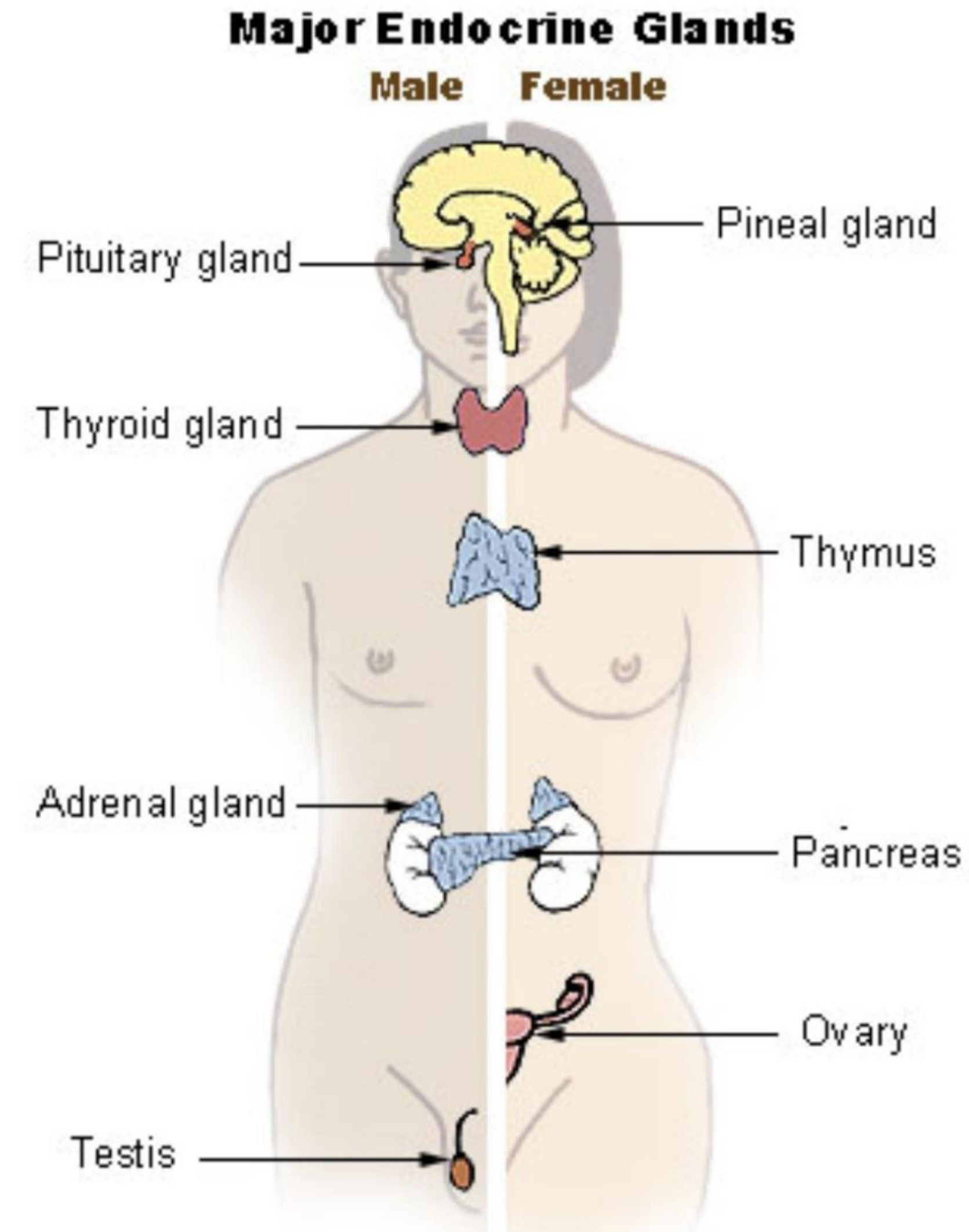
Discharge hormones directly into the **bloodstream**. They have built in feedback mechanisms that maintain a proper balance of hormones, and prevent excess hormone secretion. **Low concentrations** of a hormone will often trigger the gland to secrete. Once the concentrations of the hormone in the blood rise this may cause the gland to stop secreting, until once again hormone concentrations fall. This feedback mechanism causes a cycle of hormone secretions.

## Hormones

are secreted from the **glands** of the endocrine system, they are specific in each hormone causes a response in a **specific target organ** or group of cells.

**Exocrine hormones** are secreted via a **duct into the blood** and **usually effect a distant organ or tissue**.

**Endocrine hormones** are secreted **within the tissue** and enter the blood stream via capillaries.



# The Endocrine System

<i>component</i>	<i>meaning</i>	<i>example</i>
<b>-TROPHY</b>	growth	hypertrophy = excessive growth of an organ or part
<b>A-, AN-</b>	without, lack	muscular <b>atrophy</b> = 'wasting away' of muscles
<b>ADEN-</b>	gland	<b>adenoma</b> = tumour with gland like structure
<b>-CRINE</b>	to secrete	<b>endocrine</b> = endo (within) crine (secrete)
<b>END-, Endo-</b>	within	<b>endocrine</b> = secreting within
<b>EXO-</b>	away from	<b>exocrine</b> = secreting outwardly or away from
<b>GLYCO-, GLUCO-</b>	sugar, sweet	hyper <b>glycaemia</b> = excessive blood sugar levels
<b>PARA-</b>	near, beside	<b>parathyroid</b> = beside the thyroid
<b>-MEGALY</b>	enlargement	hepatomegaly = enlarged liver with hepatitis

# The Nervous System

## Functions of the Nervous System

The complex activities of the body are controlled jointly by the **Endocrine** and the **Nervous systems**.

As **opposed** to the Endocrine system the Nervous system has a more or less instant effect on the body via a complex network of nerves and control centres.

The **Central Nervous System** (CNS) includes the brain and spinal cord, while **Peripheral Nervous System** (PNS) includes nerves connected to the spinal cord. The nervous system can be further divided into sub-systems, all of which are composed of neurons and connective tissue

Component	meaning	example
Astro	star	astrocyte = star shaped brain cell
CRANI-	skull	cranial radiation = radiation to the head
CEPHAL-	head	encephal = the brain, en(in) cephal (the head)
MENING-	membrane	meningitis = inflammation of the membranes of the spinal chord
NEUR-	nerve	neuroblast = an immature nerve cell
VENTRICULO-	cavity	Ventriculscopy = examination of ventricles
-GRAM	Record	electroencephalogram (EEG) = brain scan