Endocrine System Key Information

Endocrine glands are specialised glands that secrete hormones directly into the bloodstream, rather than through ducts. These hormones act as chemical messengers, travelling to target organs or tissues where they regulate specific physiological processes. Key examples include the pituitary gland, which is often called the "master gland" because it controls many other endocrine glands, the thyroid gland (regulating metabolism), the adrenal glands (involved in stress response), and the pancreas (controlling blood glucose levels through insulin and glucagon). Understanding the role of these glands is essential for explaining how the endocrine system maintains homeostasis in the body.

Key words & definitions

Key word	Key information
Endocrine gland	A specialised gland that secretes hormones directly into the bloodstream without using ducts.
Hormone	A chemical messenger produced by an endocrine gland that travels in the blood to affect target organs or tissues.
Chemical messenger	A substance (such as a hormone) that transmits signals from one part of the body to another.
Target organ/tissue	A specific organ or tissue that has receptors for a particular hormone and responds to it.
Physiological processes	The normal biological functions carried out in the body, such as growth, metabolism, and regulation of blood glucose.
Homeostasis	The maintenance of a stable internal environment within the body despite external changes.
Pituitary gland	An endocrine gland often called the “master gland” because it releases hormones that control other endocrine glands.