

Adrenaline Key Information

The adrenal glands are small, triangular organs located on top of each kidney, playing a crucial role in the endocrine system. They consist of two main regions: the adrenal cortex and the adrenal medulla, each producing different hormones. The adrenal cortex produces steroid hormones, including cortisol, which regulates metabolism and the stress response, and aldosterone, which controls blood pressure by regulating salt and water balance. The adrenal medulla secretes catecholamines, such as adrenaline and noradrenaline, which prepare the body for the fight-or-flight response by increasing heart rate, blood flow to muscles, and glucose availability. These hormones enable the body to adapt to both short- and long-term stress.

Key words & definitions

Key word	Key information
Adrenal glands	Small, triangular endocrine glands located on top of each kidney that produce hormones involved in stress and homeostasis.
Endocrine system	A system of glands that secrete hormones into the bloodstream to regulate body functions.
Adrenal cortex	The outer region of the adrenal gland that produces steroid hormones such as cortisol and aldosterone.
Adrenal medulla	The inner region of the adrenal gland that secretes catecholamines such as adrenaline and noradrenaline.
Steroid hormones	Lipid-soluble hormones derived from cholesterol that can pass through cell membranes and affect gene expression.
Cortisol	A steroid hormone that regulates metabolism and helps the body respond to long-term stress.
Aldosterone	A steroid hormone that controls blood pressure by regulating salt and water balance in the kidneys.