

ADRENAL GLAND CLINICAL REFERENCE CHART

Anatomy Overview

Location: Superior pole of each kidney (Retroperitoneal).

Adrenal Cortex: Outer layer (80-90%), derived from mesoderm.

Adrenal Medulla: Inner core, derived from neural crest cells.

Blood Supply

â€¢ Superior Suprarenal (Inf. Phrenic Artery)

â€¢ Middle Suprarenal (Abdominal Aorta)

â€¢ Inferior Suprarenal (Renal Artery)

Zone / Layer	Hormone Class	Primary Hormone	Primary Function	Regulator
Zona Glomerulosa (Outer)	Mineralocorticoids	Aldosterone	Na ⁺ retention, K ⁺ excretion, BP regulation	Angiotensin II, K ⁺ levels
Zona Fasciculata (Middle)	Glucocorticoids	Cortisol	Glucose metabolism, anti-inflammatory, stress response	ACTH
Zona Reticularis (Inner)	Androgens	DHEA / Androstenedione	Precursor to sex steroids, secondary sex traits	ACTH
Adrenal Medulla (Core)	Catecholamines	Epinephrine / Norepinephrine	"Fight or Flight" response, HR and Glucose increase	Sympathetic Nervous System

Common Pathologies

Cushing's Syndrome

Hypercortisolism (Excess Cortisol)

Addison's Disease

Primary Adrenal Insufficiency (Deficient Cortisol/Aldosterone)

Conn's Syndrome

Primary Hyperaldosteronism

Pheochromocytoma

Medullary tumor causing excess catecholamine release