

# *Adrenals and Stress Hormones*

*Dave Bridges, Ph.D.*

*March 13, 2015*

This lecture covers endocrine control of appetite. It covers the following pages in the textbook: 341-344 <sup>1</sup>.

1

## *Contents*

<i>Learning Objectives</i>	2
<i>Anatomy of the Adrenal Gland</i>	2
<i>Steroid Hormones Secreted from The Adrenal Gland</i>	2
<i>Aldosterone</i>	2
<i>Cortisol</i>	3
<i>Epinephrine and Norepinephrine</i>	3

### *Learning Objectives*

For this lecture, the learning objectives are:

- Name three zones in the adrenal cortex and major regulator(s) of each zone.
- Name three steroidogenesis pathways and their major products.
- Explain briefly the physiological mechanism of adrenogenital syndrome.
- Describe the physiological actions and roles of aldosterone.
- Explain briefly the renin-angiotensin system.
- Describe the negative feedback regulation of aldosterone and its relationship to blood volume/blood pressure homeostasis.
- Describe hepatic and extrahepatic metabolic actions of glucocorticoids. Discuss their relationship.
- State the major findings caused by adrenal hypersecretion of mineralocorticoids.
- State the major findings caused by adrenal hypersecretion of glucocorticoids.
- Name the major hormones secreted from the adrenal medulla. Discuss the differences of epinephrine (epi) and norepinephrine (NE) in cardiovascular actions (physiological levels).
- List the major metabolic actions of catecholamines.
- Contrast the thresholds for actions vs. plasma levels of epi and NE under common conditions, like exercise, and in the disease pheochromocytoma

### *Anatomy of the Adrenal Gland*

### *Steroid Hormones Secreted from The Adrenal Gland*

#### *Aldosterone*

THE REININ-ANGIOTENSIN SYSTEM. The kidney is regul

*Cortisol*

*Epinephrine and Norepinephrine*

*List of Figures*

*List of Tables*