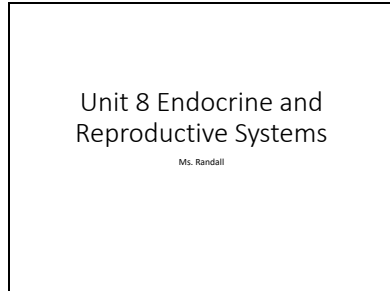


Name: \_\_\_\_\_

Ms. Randall Anatomy and Physiology

## Unit 8: Endocrine and Reproductive Systems

Slide 1



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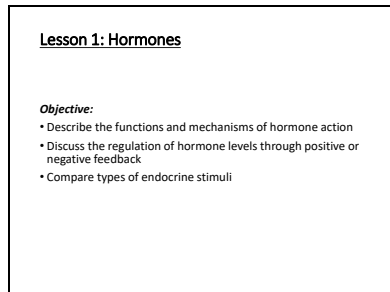
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Slide 2



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Slide 27

**Adrenocorticotropic Hormone (ACTH)**

- Controls the secretion of glucocorticoids such as **cortisol** from the adrenal cortex
- Secretion stimulated by **corticotropin-releasing (CRH) hormone** from hypothalamus
- Also stimulated by stress-related stimuli
- Rising cortisol blood levels inhibits both ACTH and CRH release by negative feedback

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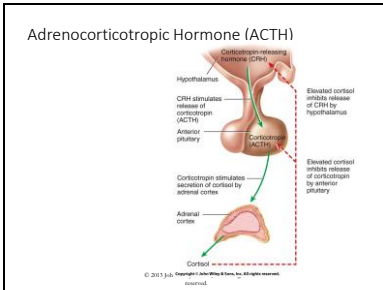
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Slide 28



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Slide 29

**Human Growth Hormone (hGH)**

- Promotes synthesis and secretion of **insulin** like growth factors (IGFs) that stimulate body growth and repair, increase lipolysis, and elevate blood glucose levels
- Secretion stimulated by **growth hormone-releasing (GHRH)** and inhibited by growth hormone-inhibiting (GHIH) hormones from hypothalamus
- Blood glucose level is a major regulator of GHRH and GHIH secretion

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Slide 33

**Luteinizing Hormone (LH)**

- In females: triggers **ovulation**, the release of oocyte from ovary, and stimulates secretion of progesterone by ovary after ovulation; also with FSH stimulates secretion of estrogen by ovaries
- In males: stimulates secretion of **testosterone** by the testes
- Secretion stimulated by **gonadotropin-releasing (GnRH)** hormone from hypothalamus

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Slide 34

**Prolactin (PRL)**

- Initiates **milk production** by mammary glands
- Secretion stimulated by **prolactin-releasing (PRH) and prolactin-inhibiting (PIH)** hormones from hypothalamus
- Sucking action of nursing infant causes a reduction in PIH, therefore increasing PRL secretion
- Function in males not known, but excess causes erectile dysfunction

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Slide 35

**Melanocyte-Stimulating Hormone (MSH)**

- Function in human is unknown, but receptors in the brain suggests it may influence brain activity
- Secretion stimulated by excessive level of corticotropin-releasing hormone (CRH) and inhibited by prolactin-inhibiting hormone (PIH) from hypothalamus
- Excess can **cause darkening of skin**

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Slide 63

**Reproductive Glands**

- The **ovaries** produce **estrogen and progesterone**.
- The **placenta** produces **estrogen, progesterone, and gonadotropin**.
- The **testes** produce **testosterone**.

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Slide 64

**Digestive Glands**

- The digestive glands secrete hormones associated with the processes of digestion.

**Other Hormone Producing Organs**

- The heart secretes **atrial natriuretic peptide** affecting sodium and the kidneys secrete erythropoietin for blood cell production.

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Slide 65

Lesson 3: Female Reproductive System

**Objective:**

- Describe the structure and function of the organs of the female reproductive system
- List the steps of oogenesis

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