

## WEEK 5

# ENDOCRINE DISORDERS

### Objectives:

1. Review and recall hypothalamic-pituitary regulation.
2. Discuss the characteristics of a pituitary adenoma in general and specifically a prolactin secreting adenoma.
3. Describe the physiology of hypersecretion and hyposecretion of growth hormone.
4. Discuss the characteristics of gigantism and acromegaly.
5. Explain how the thyroid gland is organized and how it is regulated.
6. Describe thyroid hormone synthesis.
7. Describe the causes and characteristics of hyperthyroidism and hypothyroidism.
8. Discuss the physiology of regulation, hypersecretion and hyposecretion of mineralocorticoids (aldosterone).
9. Discuss the physiology of regulation, hypersecretion and hyposecretion of glucocorticoids (cortisol).
10. Describe the physiology, regulation, hypersecretion and hyposecretion of ADH.

### Vocabulary:

- Acromegaly
- Addison's disease
- ADH/vasopressin
- Aldosterone
- Calcitonin
- Calculating mid-parental height
- Cretinism
- Conn's syndrome
- CRH, ACTH, cortisol
- Cushing's disease
- Cushing's syndrome
- Diabetes insipidus
- Galactorrhea
- Ghrelin
- GHRH/GHIH (somatostatin) and GH
- Gigantism
- Glucocorticoid
- GnRH, FSH, LH
- Graves' disease
- Hashimoto's disease
- Hyperthyroidism vs hypothyroidism
- Hypothalamo-hypophyseal portal system and tract
- IGF-1/somatomedin C
- Micro vs macroadenomas
- Megalin
- Mineralocorticoid
- MITs and DITs
- Myxedema
- Neurohormone
- Oxytocin
- Pendred syndrome
- Pendrin
- Intracellular and peripheral deiodinase
- PIH/dopamine and prolactin
- Primary, secondary, and tertiary endocrine disorders
- Prolactinoma
- SIADH
- Sodium iodide symporter (NIS)
- Thyroglobulin (TG)
- Thyroid binding globulin (TBG)
- Thyroid peroxidase (TPO)
- Thyroid stimulating immunoglobulin (TSI)
- TRH, TSH, T3 and T4
- Thyrotropin
- Thyroxine
- Zones of adrenal cortex

Endocrine Disorders (Adenomas, Prolactin, Growth Hormone, and Thyroid Hormone)
Hypothalamic-Pituitary Regulation
Pituitary Adenomas
Prolactin (PRL) Disorders
Growth Hormone Disorders
Thyroid Hormone Disorders
Endocrine Disorders (Aldosterone, Cortisol, and ADH)
Adrenal Gland
Aldosterone (Mineralocorticoid)
Cortisol (Glucocorticoids)
Anti-Diuretic Hormone (ADH)



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