

Chapter 17 : Endocrine System

1. Define the following:
 - A. hormone
 - B. gland
 - C. target cell
2. What are the true endocrine glands, what are the false endocrine glands.
3. What are the two general categories of hormones?
4. What are the three modes of hormone release?
5. How do feed back loops control hormone secretion? What does this mean in terms of their overall concentration in the blood, is it a steady state release, or does it fluxuate (why)?
6. Describe the interaction between the hypothalamus and posterior pituitary. What are the functions of ADH, and oxytocin.
7. Describe the interaction of the hypothalamus with the anterior pituitary. What are the hormones released by the anterior pituitary gland and what are their targets and effects.
8. Describe the following hormone pathways, where is each hormones released, its target gland, and its function:
 - A. CRH, ACTH, Glucocorticoids/aldosterone
 - B. TRH, TSH, thyroid hormones (T3/T4)
 - C. GnRH, FSH/LH, estrogen/progesterone/testosterone.
9. Describe the regulation and function of insulin and glucagon from the pancreas. Which cells in the pancreas makes glucagons and insulin.
10. Define diabetes Mellitus. What are the two types of diabetes, why are they caused, and how can they be controlled?
11. Describe the anatomy of the adrenal gland.
12. What are the layers found in the adrenal cortex, what hormones are released from each layer, what is the function of these hormones.
13. What hormones are released from the adrenal medulla, what is their function?
14. Describe the anatomy of the parathyroid glands, what hormones do they make (what cells make these). When are these hormones released, and what triggers their release (ie calcium concentration effects on PTH).
15. What are the target cells of PTH and calcitonin? How do they control blood calcium levels?
16. What happens to overall body function if the parathyroid glands are removed?
17. Describe the anatomy of the thyroid gland. What hormones are made by this gland (name of cells that make each hormone). What are the functions of the thyroid hormones on metabolism? What is a follicle, what is colloid, what is iodine used for, what happens if iodine is low in the individuals diet?
18. What are the disorders of the thyroid gland? How does it relate to metabolism, body weight, body heat, and hunger?
19. What hormones are released by the following structures, and what are the functions of these hormones:
 - A. Thymus
 - B. Kidney
 - C. Pineal gland.
20. What are the male and female gonads, what hormones are released by them, what is the function of these hormones, and which cells release these hormones.