

## OUTCOMES FOR THE ENDOCRINE SYSTEM

1. Understand the concept of a hormone and target cell or organ
2. Explain how steroid and protein hormones cause changes in target cells
3. Identify the function and location of the principal endocrine glands of the human body.  
Include:
  - a. Pineal
  - b. Hypothalamus
  - c. Pituitary
  - d. Thyroid
  - e. Parathyroid
  - f. Adrenal
  - g. Pancreas (Islets of Langerhans)
  - h. Thymus
  - i. Ovaries
  - j. Testes
4. Identify and describe function(s) of the various hormones from the glands listed above
5. Know in more detail the following hormones, their source gland, and their effect on the human organism:
  - a. Melatonin
  - b. Thyroxine
  - c. Adrenaline
  - d. Somatotropin (HGH)
6. Explain how the hypothalamus-pituitary complex functions in feedback control
7. Describe the regulation of blood sugar by controlled release of glucagon and insulin, and explain the consequence of any malfunction (diabetes)
8. Describe the disorders related to the secretions of the endocrine system and their effect on the organism:
  - a. Dwarfism
  - b. Gigantism (giantism)
  - c. Hyperthyroidism
  - d. Hypothyroidism
  - e. Diabetes mellitus
9. Investigate the role played by Frederick Banting and Charles Best in the discovery of insulin
10. Explain how the neural and endocrine systems help maintain homeostasis in reacting to stress