

Endocrine System Notes

Learning Target: Define hormone. (K)

Anatomy

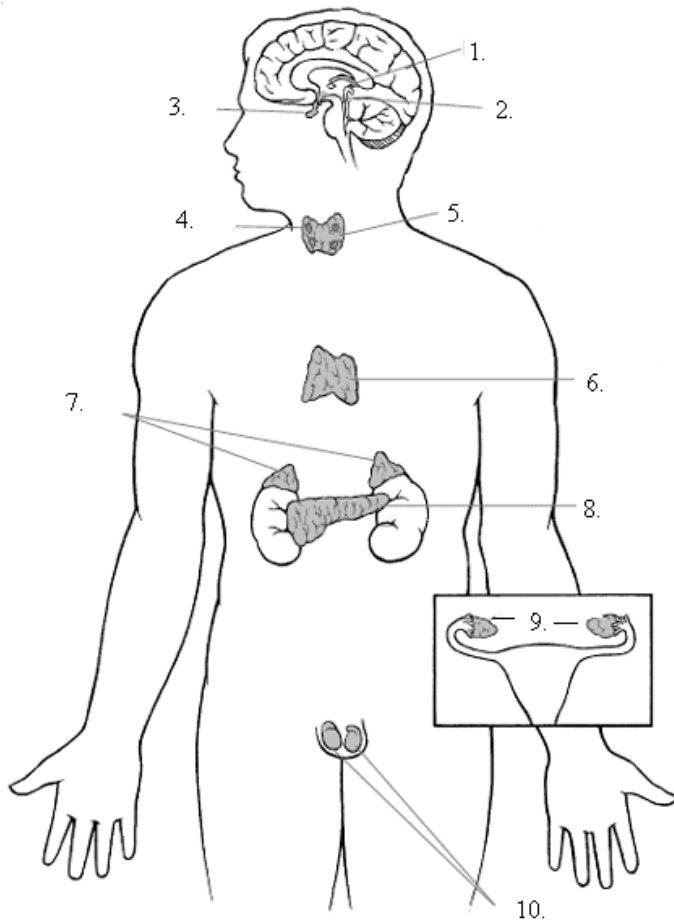
Physiology

- any tissue or organ that secretes hormones directly into the bloodstream
 - Do you know the names of any endocrine glands?

- chemicals that affect the metabolism or behavior of a cell
 - Do you remember what is meant by "metabolism"?

- a cell having a specific receptor that reacts with a specific hormone
 - Can you think of the names of any specific hormones?

Learning Target: Locate major endocrine glands and name the hormones they secrete. (K)



Matching:

Adrenal	Releases hormones to the pituitary
Hypothalamus	Secrete testosterone
Ovaries	Secrete insulin
Pancreas	Master endocrine gland
Parathyroid	Metabolizes carbs, proteins, and lipids
Pineal Gland	Maturation site for immune system cells
Pituitary Gland	Secretes adrenalin
Testes	Secrete estrogen
Thymus	Secrete melatonin (regulates sleep patterns)
Thyroid	Controls the amount of calcium in the blood

Learning Target: Determine the biological response during the release of a hormone. (R)

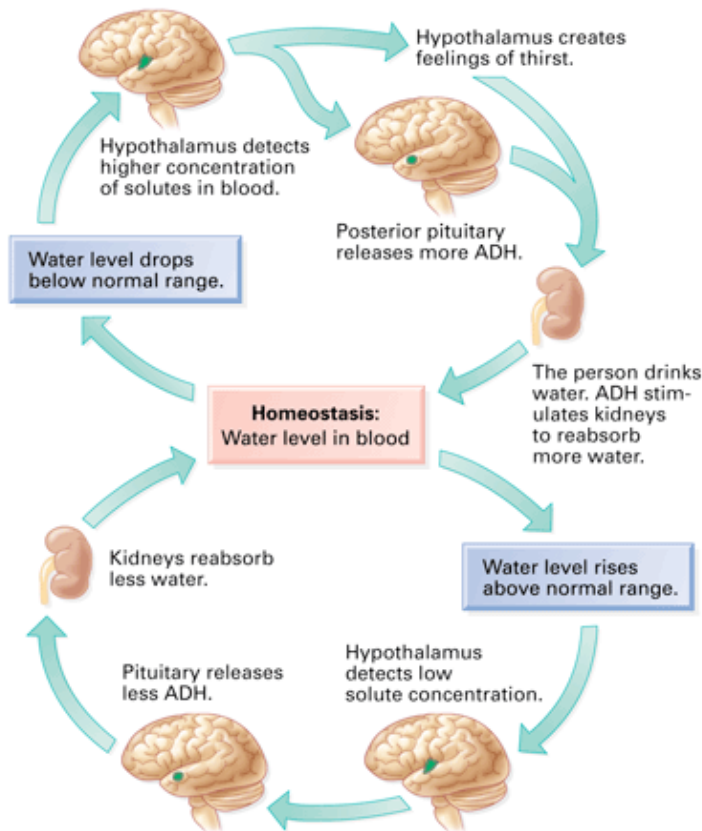
How the endocrine system works:

1. The nervous system causes a hormone to be released.
Fight or Flight Example:

Diagram:
2. The hormone is shuttled through the blood stream to a target cell.

3. Hormones stimulate changes in the target cell.
Fight or Flight Example:

4. Negative feedback system control when the endocrine gland should be inhibited or begin to secrete again.
Example:



What hormone is released when you are thirsty?

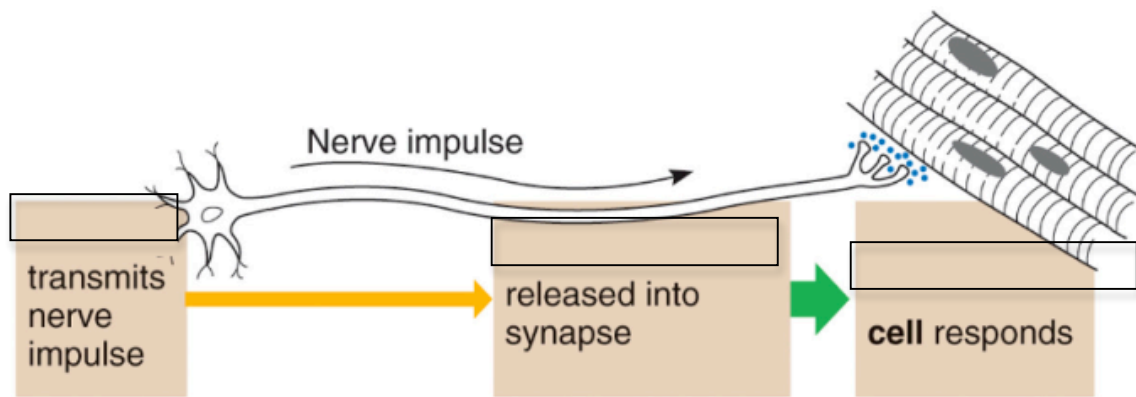
What are the target cells?

What changes take place in the target cells?

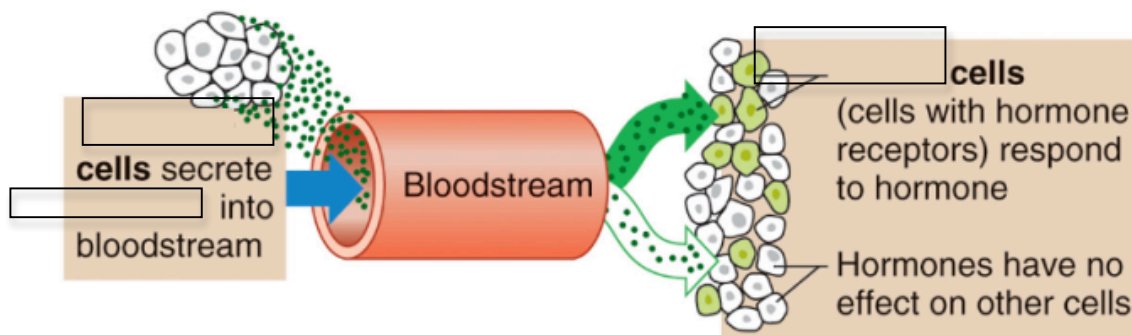
This is an example of (negative / positive) feedback.

Learning Target: Compare and contrast the nervous system and endocrine system. (R)

	Nervous System	Endocrine System	Word Bank
Type of cells			Epithelial or Neuron/Neuroglial
Name of chemical that sends a signal			Hormone or Neurotransmitter
Where is chemical signal received?			Receptor at Postsynaptic Neuron or Receptor at Target Cell
Speed of onset of response			Milliseconds or Seconds to hours
Duration of action			Milliseconds or Seconds to days



(a)



(b)