

BIOLOGICAL UNDERPINNINGS OF BEHAVIOR

Neurons and Neurotransmitters

Group Presentations

1. What does biophysiology and neuroscience focus on? Who were some early contributors to the field?
2. What is a neuron? Diagram, identify and define the parts of the neuron and specify their functions.
3. What are glial cells? What are their roles? Name and define the function of some types of glial cells.
4. What are afferent, efferent and interneurons? What are their functions? Why do some neurons have different shapes? Where are these neurons located in the body?
5. What are some disorders that can be caused by malfunctioning or deteriorating neurons?
6. What is a neurotransmitter? List the types and functions of each neurotransmitter. Discuss the disorders or illnesses that can result due to an insufficient or overproduction of neurotransmitters.

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Neuroscience: The Nervous System –Central, Peripheral and Enteric

Group Presentations

1. Provide an overview of the nervous system, its purpose, functions, and major parts.
2. Describe in detail, the enteric nervous system (*download and read the lesson on the course website-King's Psychology Network, under "lessons and handouts."*)
3. Define and distinguish between the following brain parts and their functions: hindbrain, midbrain, and forebrain.
4. Describe the limbic system. Name its parts and what they are responsible for?
5. Describe the purpose and functions of the 4 lobes of the brain and the cortexes.
6. Describe the brain hemispheres and their functions. What happens in the split brain procedure? What happens to how the patient is able to function? What is this procedure performed on patients?

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The Endocrine System-The Ductless Glands

Group Presentations

1. Describe the endocrine system. Why are they called ductless glands? What is the name of our system with duct glands?
2. What chemicals are produced by the endocrine system? How are these different neurons and neurotransmitters?
3. Name and describe each gland of the endocrine system. Discuss the functions of each gland and discuss the hormones produced and the functions of these hormones.
4. What disorders can result when there is a deficiency or excesses in the operation of the endocrine glands or the hormones produced?