

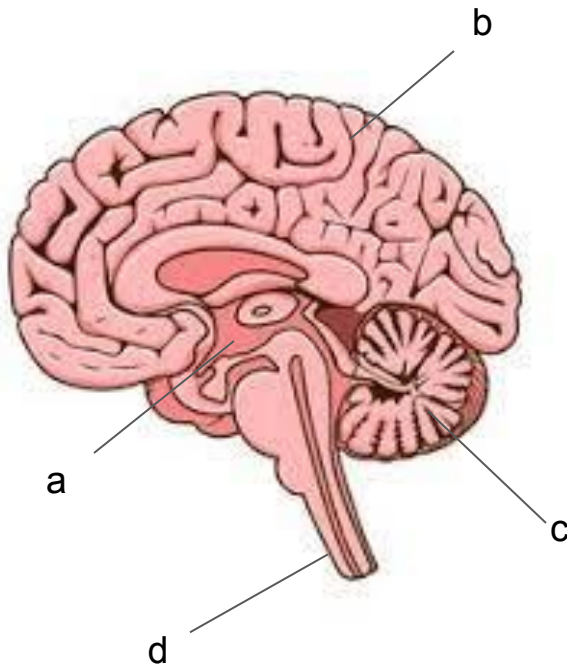
SSSS

Anatomy and Physiology



Nervous System:

Label the parts of the diagram.



1. a	
2. b	
3. c	
4. d	

5. The cerebral cortex consists of all of the following except:

- A. Cell Bodies
- B. Synapses
- C. Myelin
- D. Gyri

6. Which part of the brain is also considered to be part of the Endocrine System?

- A. Hypothalamus
- B. The Pituitary Gland
- C. Medullary Body
- D. A and B

7. All of the following are glial cells in the Central Nervous System except for:

- A. Satellite Cells
- B. Ependymal Cells
- C. Astrocytes
- D. Microglia

8. How are oligodendrocytes and Schwann cells similar?

- A. Both regress to help the regrowth of an axon.
- B. Both help neurons remove myelin to maintain homeostasis.
- C. Both are kinds of neuroglia in the Peripheral Nervous System.
- D. Both wind around a nerve fiber to create a myelin sheath.

9. What is the largest division of the brain?

- A. Frontal Lobe
- B. Cerebrum
- C. Brain Stem
- D. Cerebellum

10. When a neuron is not sending a signal:

- A. The inside of the neuron is positive.
- B. The inside of the neuron is negative.
- C. The inside of the neuron is neutral.
- D. None of the above.

11. Which of the following has the easiest time crossing through the membrane?

- A. Cl^-
- B. A^-
- C. Na^+
- D. K^+

12. Because sodium has a _____ charge, when sodium channels open, depolarization occurs.

- A. Positive
- B. Negative
- C. Neutral
- D. None of the above

13. When action potential goes below -70 mV, what occurs?

- A. Repolarization
- B. Depolarization
- C. Hyperpolarization
- D. Polarization

14. Paralysis occurs when:

- A. There is an excess amount of enzymes, which begin to break down the post-synaptic ending.
- B. There is a lack of neurotransmitters released from a synapse.
- C. Excess neurotransmitters are not broken down by enzymes.
- D. Both B and C.

15. When does the spinal cord stop growing?

- A. Around 20 years of age.
- B. Around 4 years of age.
- C. Around 10 years of age.
- D. It never stops growing.

Give a brief summary of the cause of each disorder/disease.

16.

Parkinson's Disease: _____

17.

Glaucoma: _____

18.

Cerebral Palsy: _____

19.

Multiple Sclerosis: _____

List the 4 main lobes of the brain. (No specific order)

20. _____

21. _____

22. _____

23. _____

Sense Organs:

1. What percent of sensory receptors in the body are in the eyes?

- A. 50%
- B. 30%
- C. 70%
- D. 90%

2. Which part of the eye produces what is known as “eye boogers”?

- A. Medial commissure
- B. Tarsal plates
- C. Sclera
- D. Lacrimal caruncle

3. Which of the following is not a benefit of tears?

- A. Moistens the eye
- B. Provides as a protective barrier over the eye
- C. Cleanses the eye
- D. Contains antibodies

4. Which part of the eye is insensitive to light?

- A. Optic nerve
- B. Rod cells
- C. Cone cells
- D. All of the above

5. The iris contracts in _____ light, _____ the amount of light that admits into the eye.

- A. dim;increasing
- B. dim;decreasing
- C. strong;increasing
- D. strong;decreasing

6. What is the smallest bone in the ear?

- A. Stapes
- B. Malleus
- C. Incus
- D. Cochlea

7. The vestibular system in the inner ear is responsible for which of the following?

- A. Sense of balance
- B. Processing vibrations
- C. Spatial orientation
- D. A and C

8. Which nasal structure is believed to have no functional use in humans?

- A. Superior Turbinate
- B. Olfactory Bulb
- C. Vomeronasal organ
- D. Sphenoidal Sinus

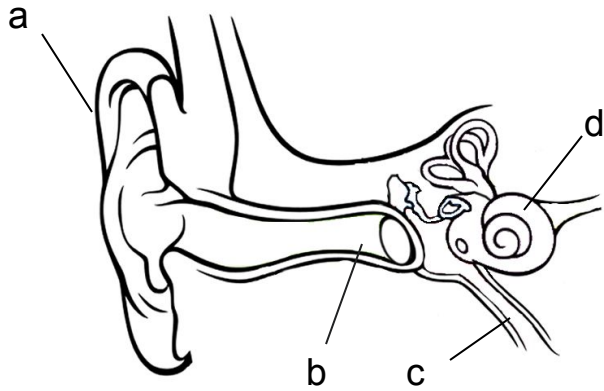
9. Is the sensation of umami:

- A. Salty
- B. Sweet
- C. Bitter
- D. None of the above

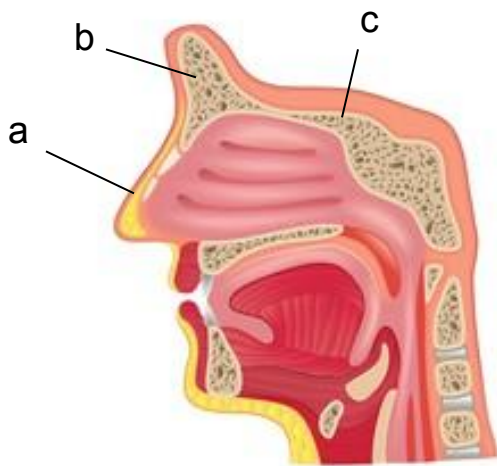
10. The taste buds on the top and sides of the tongue are sensitive to _____ and _____ flavors.

- A. sweet; salty
- B. salty; sour
- C. sour; bitter
- D. bitter; sweet

Label the parts of the ear.



11. a	
12. b	
13. c	
14. d	



15. a	
16. b	
17. c	

Endocrine System:

1. The parathyroid glands produce which of the following hormones?

- A. GH
- B. PRL
- C. PTH
- D. LH

2. Both the hypothalamus and pituitary gland are involved in the synthesis and secretion of _____.

- A. Both ADH and oxytocin.
- B. Just ADH.
- C. Just oxytocin.
- D. Neither ADH nor oxytocin.

3. Testosterone can be converted into which type of estrogen?

- A. Estrone (E1)
- B. Estradiol (E2)
- C. Estriol (E3)
- D. Estetrol (E4)

4. Where are the adrenal glands located?

- A. Liver
- B. Bladder
- C. Bowel
- D. None of the above

5. Which hormone is responsible for the sensation of “sleepiness” and is also a derivative of Tryptophan?

- A. Leptin
- B. Serotonin
- C. Melatonin
- D. Cortisol

6.What part of the body contains both endocrine and exocrine glands?

- A. Kidney
- B. Brain
- C. Thyroid
- D. Pancreas

7. Biogenic amines have a similar structure to:

- A. Types of amino acids
- B. Types of glucose
- C. Types of oxygen
- D. Types of enzymes

8.The gonads, along with being part of the Endocrine System because of the glands there, are also part of which other system?

- A. The Gastrointestinal System (The Digestive System)
- B. The Reproductive System
- C. The Excretory System (The Urinary System)
- D. The Integumentary System

9.Which of the following are derivatives of Tyrosine?

- A. Dopamine
- B. Epinephrine
- C. Norepinephrine
- D. All of the above

10. All hormones from which of the following are peptide hormones?

- A. Digestive Tract
- B. Pancreas
- C. Heart
- D. All of the above

Answer each question on the lines below.

11. Give a brief explanation of how the Endocrine and Circulatory systems work together.

12. Define what a Prohormone is.

13. Do all eicosanoids act as hormones?

14. Name two steroid hormones.

15. List three fat soluble hormones.

16. List three water soluble hormones.

Give a brief summary of the cause of each disease/disorder.

17.

Addison's Disease: _____

18.

Diabetes: _____

19.

Grave's Disease: _____

20.

Cushing's Syndrome: _____

