

NAME _____

LAB TIME/DATE _____

Organ Systems Overview

1. Use the key below to indicate the body systems that perform the following functions for the body. Then, circle the **organ systems** (in the key) that are present in all subdivisions of the ventral body cavity.

Key: a. cardiovascular d. integumentary g. nervous j. skeletal
 b. digestive e. lymphatic/immune h. reproductive k. urinary
 c. endocrine f. muscular i. respiratory

- k; urinary 1. rids the body of nitrogen-containing wastes
c; endocrine 2. is affected by removal of the thyroid gland
j; skeletal 3. provides support and levers on which the muscular system acts
a; cardiovascular 4. includes the heart
d; integumentary 5. protects underlying organs from drying out and from mechanical damage
e; lymphatic/immune 6. protects the body; destroys bacteria and tumor cells
b; digestive 7. breaks down ingested food into its building blocks
i; respiratory 8. removes carbon dioxide from the blood
a; cardiovascular 9. delivers oxygen and nutrients to the tissues
f; muscular 10. moves the limbs; facilitates facial expression
k; urinary 11. conserves body water or eliminates excesses
c; endocrine and h; reproductive 12. facilitate conception and childbearing
c; endocrine 13. controls the body by means of chemical molecules called hormones
d; integumentary 14. is damaged when you cut your finger or get a severe sunburn

2. Using the above key, choose the *organ system* to which each of the following sets of organs or body structures belongs.

- | | |
|---|--|
| <u>e; lymphatic/immune</u> 1. thymus, spleen, lymphatic vessels | <u>d; integumentary</u> 5. epidermis, dermis, and cutaneous glands |
| <u>j; skeletal</u> 2. bones, cartilages, tendons | <u>h; reproductive</u> 6. testis, ductus deferens, urethra |
| <u>c; endocrine</u> 3. pancreas, pituitary, adrenals | <u>b; digestive</u> 7. esophagus, large intestine, rectum |
| <u>i; respiratory</u> 4. trachea, bronchi, alveoli | <u>a; cardiovascular</u> 8. arteries, veins, heart |

3. Using the key below, place the following organs in their proper body cavity.

Key:

a. abdominopelvic b. cranial c. spinal d. thoracic

a; abdominopelvic 1. stomach a; abdominopelvic 4. liver d; thoracic 7. heart
d; thoracic 2. esophagus c; spinal 5. spinal cord d; thoracic 8. trachea
a; abdominopelvic 3. large intestine a; abdominopelvic 6. urinary bladder a; abdominopelvic 9. rectum

4. Using the organs listed in question 3 above, record, by number, which would be found in the abdominal regions listed below.

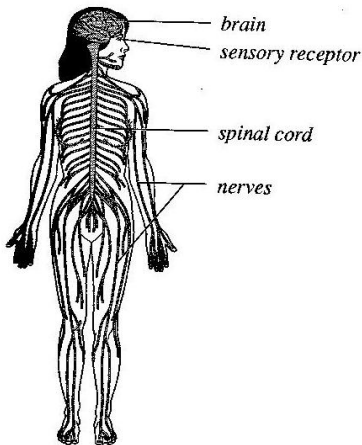
3, 6, 9 1. hypogastric region 1, 3, 4 4. epigastric region
3 2. right lumbar region 3 5. left iliac region
3 3. umbilical region 1, 3 6. left hypochondriac region

5. The levels of organization of a living body are chemicals, cell, tissue, organ, organ system, and organism.

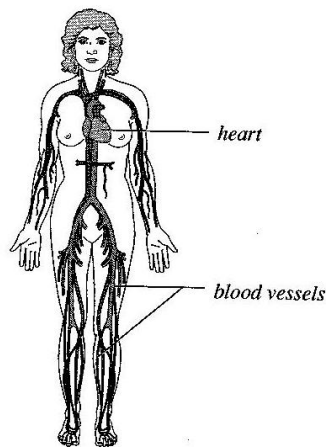
6. Define organ. A body part (or structure) that is made up of two or more tissue types and performs a specific body function, e.g., the stomach, the kidney

7. Using the terms provided, correctly identify all of the body organs provided with leader lines in the drawings below. Then name the organ systems by entering the name of each on the answer blank below each drawing.

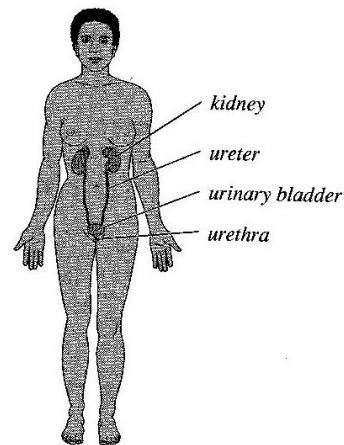
Key: blood vessels heart nerves spinal cord urethra
 brain kidney sensory receptor ureter urinary bladder



a. nervous system



b. cardiovascular system



c. urinary system

8. Why is it helpful to study the external and internal structures of the rat? Many of the external and internal structures are similar to those in the human. Studying the rat can help you to understand your own structure.