

Name Taina Lalanne
 Lab Time/Date Wednesday 2:30PM

The Language of Anatomy

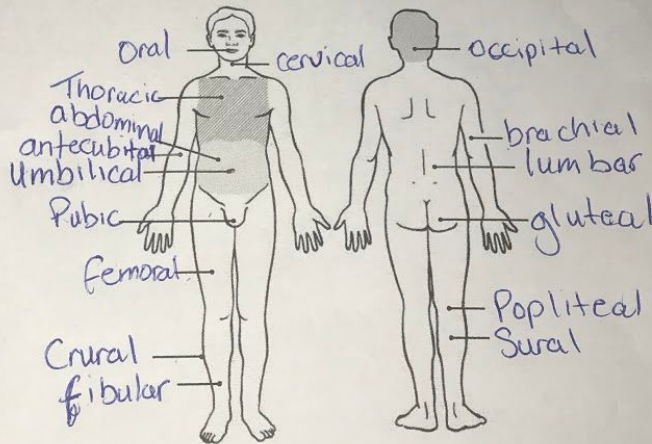
Surface Anatomy

1. Match each of the numbered descriptions with the related term in the key, and record the key letter or term in front of the description.

- | | | |
|---------------------------|--------------------------|----------------------------|
| Key: a. buccal | d. cephalic | e. patellar |
| b. calcaneal | e. digital | f. scapular |
| <u>a. Buccal</u> | 1. cheek | <u>e. Patellar</u> |
| <u>d. digital</u> | 2. fingers | <u>Calcaneal</u> |
| <u>f. Scapular</u> | 3. shoulder blade region | <u>C. cephalic</u> |
| | | 4. anterior aspect of knee |
| | | 5. heel of foot |
| | | 6. head |

2. Indicate the following body areas on the accompanying diagram by placing the correct key letter at the end of each line.

- Key:
- ~~a.~~ abdominal
 - ~~b.~~ antecubital
 - ~~c.~~ brachial
 - ~~d.~~ cervical
 - ~~e.~~ crural
 - ~~f.~~ femoral
 - ~~g.~~ fibular
 - ~~h.~~ gluteal
 - ~~i.~~ lumbar
 - ~~j.~~ occipital
 - ~~k.~~ oral
 - ~~l.~~ popliteal
 - ~~m.~~ pubic
 - ~~n.~~ sural
 - ~~o.~~ thoracic
 - ~~p.~~ umbilical



3. Classify each of the terms in the key of question 2 above into one of the large body regions indicated below. Insert the appropriate key letters on the answer blanks.

- B, C, e, f, g, h, l, m, n 1. appendicular a, d, i, j, k, o, p 2. axial

Body Orientation, Direction, Planes, and Sections

4. Describe completely the standard human anatomical position. The hands are at the sides with the palms facing forward, & the feet are together but slightly apart.

5. Define section. a cut
6. Several incomplete statements are listed below. Correctly complete each statement by choosing the appropriate anatomical term from the key. Record the key letters and/or terms on the correspondingly numbered blanks below. Some terms are used more than once.

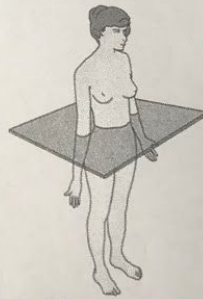
Key: a. anterior d. inferior g. posterior j. superior
 b. distal e. lateral h. proximal k. transverse
 c. frontal f. medial i. sagittal

In the anatomical position, the face and palms are on the 1 body surface; the buttocks and shoulder blades are on the 2 body surface; and the top of the head is the most 3 part of the body. The ears are 4 and 5 to the shoulders and 6 to the nose. The heart is 7 to the vertebral column (spine) and 8 to the lungs. The elbow is 9 to the fingers but 10 to the shoulder. The abdominopelvic cavity is 11 to the thoracic cavity and 12 to the spinal cavity. In humans, the dorsal surface can also be called the 13 surface; however, in quadruped animals, the dorsal surface is the 14 surface.

If an incision cuts the heart into right and left parts, the section is a 15 section; but if the heart is cut so that superior and inferior portions result, the section is a 16 section. You are told to cut a dissection animal along two planes so that both kidneys are observable in each section. The two sections that will always meet this requirement are the 17 and 18 sections. A section that demonstrates the continuity between the spinal and cranial cavities is a 19 section.

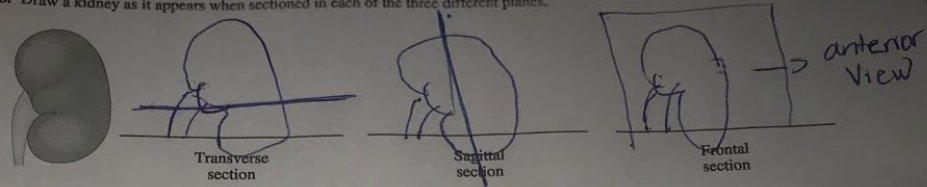
- | | | |
|---------------------|----------------------|-----------------------|
| 1. <u>Anterior</u> | 8. <u>medial</u> | 14. <u>Superior</u> |
| 2. <u>Posterior</u> | 9. <u>Proximal</u> | 15. <u>Sagittal</u> |
| 3. <u>Superior</u> | 10. <u>distal</u> | 16. <u>Frontal</u> |
| 4. <u>Superior</u> | 11. <u>inferior</u> | 17. <u>Transverse</u> |
| 5. <u>distal</u> | 12. <u>anterior</u> | 18. <u>Frontal</u> |
| 6. <u>lateral</u> | 13. <u>Posterior</u> | 19. <u>Frontal</u> |
| 7. <u>Frontal</u> | | |

7. Correctly identify each of the body planes by inserting the appropriate term for each on the answer line below the drawing.



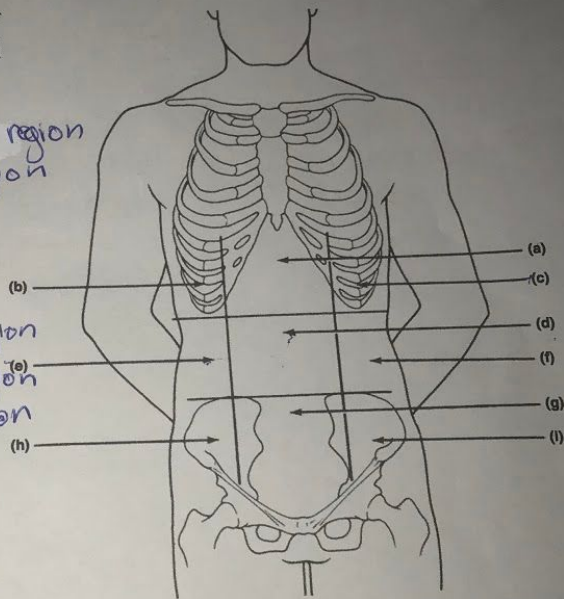
- (a) Sagittal plane (b) Frontal plane (c) Transverse Plane

8. Draw a kidney as it appears when sectioned in each of the three different planes.



9. Correctly identify each of the nine regions of the abdominopelvic cavity by inserting the appropriate term for each of the letters indicated in the drawing.

- a. Epigastric region
- b. right hypochondriac region
- c. left hypochondriac region
- d. Umbilical region
- e. right lumbar region
- f. left lumbar region
- g. Pubic (hypogastric) region
- h. Right inguinal region
- i. left inguinal region



Body Cavities

10. Which body cavity would have to be opened for the following types of surgery or procedures? (Insert letter of key choice in same-numbered blank. More than one choice may apply.)

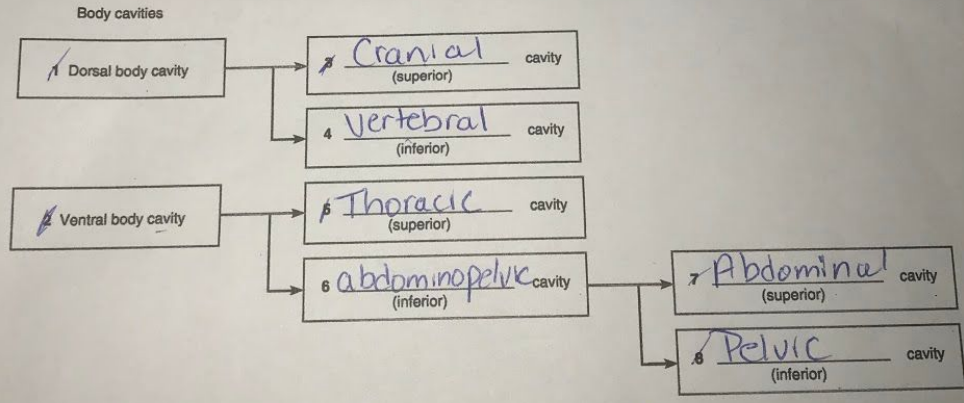
- Key: a. abdominopelvic c. dorsal e. thoracic
 b. cranial d. spinal f. ventral

- E 1. surgery to remove a cancerous lung lobe
- A, B 2. removal of the uterus, or womb
- A, C 3. removal of a brain tumor
- A 4. appendectomy
- A 5. stomach ulcer operation
- A, C 6. delivery of pre-operative "saddle" anesthesia

11. Name the muscle that subdivides the ventral body cavity. Diaphragm
12. What are the bony landmarks of the abdominopelvic cavity? bony rib cage & Pelvic bone
13. Which body cavity affords the least protection to its internal structures? Abdominal
14. What is the function of the serous membranes of the body? Its a thin double layered membrane that covers the external surface of the organ within the cavity. It allows the organs to slide over one another.

15. Using the key choices, identify the small body cavities described below.
- Key: middle ear cavity oral cavity e. synovial cavity
 nasal cavity orbital cavity
- D. orbital 1. holds the eyes in an anterior-facing position
A. middle ear 2. houses three tiny bones involved in hearing
B. nasal 3. contained within the nose
C. Oral 4. contains the tongue
E. Synovial 5. surrounds a joint

16. On the incomplete flowchart provided below:
- Fill in the cavity names as appropriate to boxes 3-8.
 - Then, using either the name of the cavity or the box numbers, identify the descriptions in the list that follows.



- 1 a. contained within the skull and vertebral column
8 b. houses female reproductive organs
3 c. the most protective body cavity
2 d. its name means belly
5 e. contains the heart
7 f. contains the small intestine
5 g. bounded by the ribs
6 h. its walls are muscular

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EXERCISE 2

Organ Systems Overview

REVIEW SHEET

1. Use the key below to indicate the body systems that perform the following functions for the body; note that some body systems are used more than once. 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/immunity h. reproductive k. urinary
c. endocrine f. muscular i. respiratory

- Urinary 1. rids the body of nitrogen-containing wastes
Endocrine 2. is affected by removal of the thyroid gland
Skeletal 3. provides support and levers on which the muscular system acts
Cardiovascular 4. includes the heart
Reproductive 5. has a menstrual cycle in females
Integumentary 6. protects underlying organs from drying out and from mechanical damage
Lymphatic/immunity 7. protects the body; destroys bacteria and tumor cells
Digestive 8. breaks down ingested food into its building blocks
Respiratory 9. removes carbon dioxide from the blood
Respiratory 10. delivers oxygen and nutrients to the tissues
Muscular 11. moves the limbs; facilitates facial expression
Urinary 12. conserves body water or eliminates excesses
Reproductive and _____ 13. facilitate conception and childbearing
Endocrine 14. controls the body by means of chemical molecules called hormones
Nervous 15. 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.

Lymphatic 1. thymus, spleen, lymphatic vessels

Skeletal 2. bones, cartilages, tendons

Endocrine 3. pancreas, pituitary, adrenals

Respiratory 4. trachea, bronchi, lungs

Integumentary 5. epidermis, dermis, and cutaneous sense organs

Reproductive 6. testis, ductus deferens, urethra

Digestive 7. esophagus, large intestine, rectum

Muscular 8. muscles of the thigh, postural muscles

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

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

A 1. stomach A 4. liver D 7. heart
D 2. esophagus C 5. spinal cord D 8. trachea
A 3. large intestine A 6. urinary bladder A 9. rectum

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

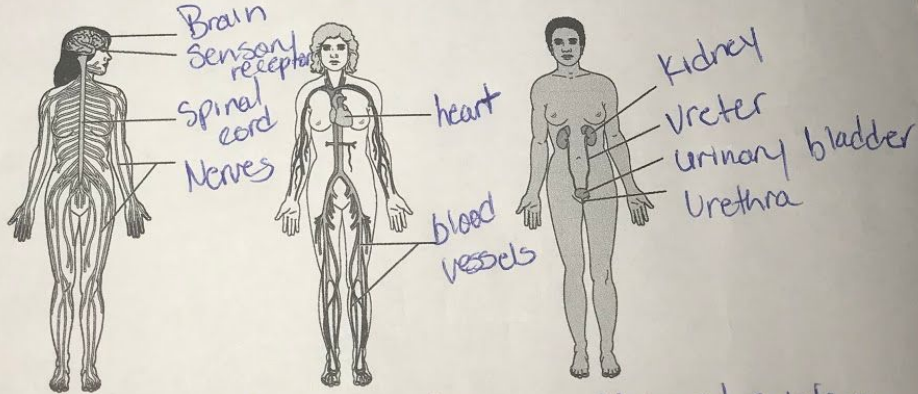
6 1. hypogastric region 1 4. epigastric region
3 2. right lumbar region 3 5. left iliac region
3 3. umbilical region 1 6. left hypochondriac region

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

6. Define organ. Two or more tissues working together to perform specific functions.

7. Using the terms provided, correctly identify all of the body organs provided with leader lines in the drawings shown 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 c. Urinary system

8. Why is it helpful to study the external and internal structures of the rat? Because many external & internal structures of the rat's are very similar to a humans & can help understand human structures