Body cavities

Explained answer key

1. Which cavity houses the brain?

The cranial cavity, a subdivision of the dorsal body cavity.

2. Which cavity houses the spinal cord?

The vertebral (spinal) cavity, also called the vertebral canal. It belongs to the dorsal body cavity.

3. Name the two main subdivisions of the ventral body cavity.

The thoracic and abdominopelvic cavities.

4. What muscle separates the thoracic and abdominopelvic cavities?

The diaphragm. It forms the inferior boundary of the thoracic cavity.

5. Name the two subdivisions of the abdominopelvic cavity.

The abdominal and pelvic cavities.

6. Does a membrane separate the abdominal cavity from the pelvic cavity?

No. These are continuous subdivisions; there is no separating membrane between them.

7. Which major ventral subdivision contains the lungs?

The thoracic cavity. The question asks for the major subdivision, rather than a smaller space associated with each lung.

8. Correct this grouping: dorsal cavity > thoracic cavity > heart.

Ventral cavity > thoracic cavity > heart. The thoracic cavity belongs to the ventral group; the dorsal group houses the brain and spinal cord.

Terminology reference: NCI SEER, Anatomical Terminology. Questions and explanations by Atlas Library.

Also checked against OpenStax, Anatomy and Physiology 2e, section 1.6. Use your course diagram to locate each cavity after checking your answers.