



QUIZ Time

Embryo 4,5

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Thorax Embryology

1. Which of the following combinations best describes the embryological origin of the respiratory tract?

- A. Endoderm – cartilage; Mesoderm – epithelial lining
- B. Ectoderm – muscle; Endoderm – connective tissue
- C. Endoderm – epithelial lining; Mesoderm – connective tissue
- D. Mesoderm – epithelial lining; Endoderm – cartilage

Correct Answer: C

2. During which developmental stage do Type II pneumocytes begin to produce surfactant?

- A. Embryonic stage
- B. Canalicular stage
- C. Saccular stage
- D. Alveolar stage

Correct Answer: C

3. Failure of the tracheoesophageal septum to form correctly results in which congenital anomaly?

- A. Respiratory distress syndrome
- B. Cyanosis
- C. Esophageal atresia with tracheoesophageal fistula
- D. Pulmonary hypoplasia

Correct Answer: C

4. Which of the following is not a characteristic of the canalicular stage of lung development?

- A. Formation of terminal bronchioles
- B. Development of respiratory bronchioles
- C. Increase in capillary networks
- D. Widening of distal airways

Correct Answer: A

5. Why is the pleura essential for normal lung function?

- A. It produces surfactant
- B. It transports oxygen to the bloodstream
- C. It cushions the lungs and reduces friction during respiration
- D. It controls pulmonary circulation

Correct Answer: C

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6. The respiratory diverticulum appears as an outgrowth from which embryonic structure during week 4?

- A. Neural tube
- B. Splanchnic mesoderm
- C. Primitive gut tube
- D. Amniotic sac

Correct Answer: C

7. What embryological structure separates the pericardial cavity from the pleural cavity?

- A. Pleuroperitoneal membrane
- B. Tracheoesophageal septum
- C. Pleuropericardial membrane
- D. Diaphragmatic fold

Correct Answer: C

8. A newborn with immediate breathing difficulty and a history of prematurity is most likely suffering from:

- A. Diaphragmatic hernia
- B. Bronchial atresia
- C. Respiratory distress syndrome
- D. Tracheomalacia

Correct Answer: C

9. Which phase of lung development continues after birth and is essential for increasing surface area for gas exchange?

- A. Saccular stage
- B. Canalicular stage
- C. Alveolar stage
- D. Pseudoglandular stage

Correct Answer: C

10. What critical event occurs in the transition from fetal to postnatal circulation?

- A. Closure of the pleural cavity
- B. Opening of the tracheoesophageal septum
- C. Drop in pulmonary vascular resistance
- D. Formation of tertiary bronchi

Correct Answer: C