

Developmental Biology and Health Milestones

Developmental Psychology · Answer Key · 25 Questions

1. At approximately what age does the human brain reach about 90% of its adult volume?

- A) 2 years
- B) 6 years**
- C) 12 years
- D) 18 years

2. Which hormone is primarily responsible for the onset of puberty and the physical growth spurt?

- A) Insulin
- B) Melatonin
- C) Gonadotropin-releasing hormone**
- D) Cortisol

3. What is the primary cause of the 'infant mortality' gap in the first month of life globally?

- A) Congenital anomalies
- B) Preterm birth complications**
- C) Infectious diseases
- D) Nutritional deficiencies

4. Which sensory system is the least developed at the time of a human infant's birth?

- A) Vision**
- B) Hearing
- C) Touch
- D) Taste

5. During which stage of human development do the secondary sexual characteristics first appear?

- A) Infancy
- B) Early Childhood
- C) Puberty**
- D) Adulthood

6. What is the average age range for the completion of the permanent tooth eruption (excluding wisdom teeth)?

- A) 6-8 years
- B) 10-12 years**
- C) 14-16 years
- D) 18-20 years

7. Which component of the human body experiences a decrease in total water percentage from birth to adulthood?

- A) The brain
- B) The skin**
- C) The bones
- D) The blood

8. What is the clinical term for the period of rapid physical growth and reproductive maturation?

- A) Senescence
- B) Adolescence**
- C) Gestation
- D) Neonatal period

9. Which mineral is most critical for bone density development during the adolescent growth spurt?

- A) Iron
- B) Calcium**
- C) Potassium
- D) Magnesium

10. At what stage of development is the 'grasping reflex' typically present in a human infant?

- A) Prenatal only
- B) Birth to 4-6 months**
- C) 1-2 years
- D) Adulthood

11. Which major organ system continues to develop and change its structural connectivity well into the mid-twenties?

- A) Digestive system
- B) Prefrontal cortex**
- C) Respiratory system
- D) Endocrine system

12. What condition is associated with the 'closing' of the fontanelles (soft spots) in a human infant's skull?

- A) Skeletal maturation**
- B) Brain overgrowth
- C) Dehydration
- D) Mineral deficiency

13. During aging, which aspect of cardiovascular health is most consistently affected by arterial stiffening?

- A) Heart rate variability
- B) Systolic blood pressure**
- C) Stroke volume
- D) Red blood cell production

14. What is the primary function of the myelin sheath in the developing nervous system?

- A) To produce neurotransmitters
- B) To increase signal conduction speed**
- C) To prevent viral infection
- D) To store metabolic energy

15. Which stage of the human lifespan is associated with the peak of physical strength and reaction time?

- A) Adolescence
- B) Early adulthood (20s-30s)**
- C) Middle age
- D) Late adulthood

16. What occurs to the thymus gland as a human progresses from childhood into adulthood?

- A) It grows larger
- B) It remains the same size
- C) It undergoes involution (shrinking)**
- D) It begins to produce sex hormones

17. Which vitamin is essential for blood coagulation and is commonly administered as an injection to newborns?

- A) Vitamin A
- B) Vitamin C
- C) Vitamin D
- D) Vitamin K**

18. What is the typical range of REM sleep duration in newborns compared to adults?

- A) Lower in newborns
- B) Higher in newborns**
- C) Equal in both
- D) Non-existent in newborns

19. Which part of the body maintains a disproportionately large size relative to the rest of the body during infancy?

- A) The legs
- B) The torso
- C) The head**
- D) The hands

20. The loss of muscle mass and strength associated with aging is known as what?

- A) Sarcopenia**
- B) Osteoporosis
- C) Atrophy
- D) Cachexia

21. In human development, which of these is considered a 'fine motor skill'?

- A) Running
- B) Walking
- C) Pincer grasp**
- D) Jumping

22. Which health marker is most commonly used to assess a newborn's physical status immediately after birth?

- A) BMI score
- B) Apgar score**
- C) Blood glucose level
- D) Oxygen saturation

23. What happens to the lens of the eye as a normal part of the aging process?

- A) It becomes more flexible
- B) It loses elasticity and transparency**
- C) It increases in color saturation
- D) It shrinks in diameter

24. Which of the following describes the 'cephalocaudal' trend of physical development?

- A) Development from the center outward
- B) Development from head to tail**
- C) Development from right to left
- D) Development from feet to head

25. At what developmental stage does the immune system typically reach its peak functionality?

- A) Infancy
- B) Puberty
- C) Early adulthood**
- D) Late adulthood