ATI TEAS SCIENCE REVIEW

BODILY ORGANS AND SYSTEMS

Questions related to the Bodily Organs and Systems will test your knowledge of structures and functions within the ten human organ systems that are essential to life. You may also be tested on vocabulary terms related to your understanding of anatomy. You must understand these vital body systems when caring for patient’s co-morbidities.

Please note that the ATI TEAS will only cover basic knowledge of bodily organs and systems. More in-depth knowledge will be covered in our Anatomy and Physiology Series.

Let’s get started on understanding how the bodily organs and systems are important on the ATI TEAS.
THE RESPIRATORY SYSTEM

The respiratory system involves bringing in oxygen through the airway to the lungs and releasing carbon dioxide.

Pulmonary ventilation is the movement of air into and out of the lungs. Inspiration is the process of air coming in, while expiration involves air flowing out. The ventilation process begins with air entering the body through the nose or mouth and then traveling through the pharynx, or throat. Next, the air flows down the windpipe, or trachea, and enters the bronchi. Each lung connects to a bronchus, which breaks down into smaller and smaller bronchi within the lungs, forming a bronchial tree. Bronchioles terminate in alveolar ducts and sacs, the site of gas exchange with the blood. When inside the lungs, oxygen reaches the alveoli and is then diffused into the blood.

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- When the bronchi become chronically inflamed, they narrow and spasm, causing asthma.
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- **Chronic Obstructive Pulmonary Disease (COPD)** is an inability to exhale normally. Emphysema and bronchitis are forms of COPD.

- **Cystic Fibrosis** is a genetic disorder that causes poor mucus clearance from the lungs, resulting in difficulty breathing and frequent infections.
Another process of the respiratory system is **cellular respiration**, the process by which cells get energy from nutrients. Oxygen is required for respiration, and carbon dioxide is released during the process.