

Respiratory System

Functions:

- People could not breathe without it
- It allows Oxygen into the bloodstream
- It releases Carbon Dioxide from the body

How it Travels:

The Oxygen goes through the nose or mouth, then down the pharynx. It then enters the trachea and splits through the bronchus. It branches out into several bronchioles and then finally gets to the alveoli. It will be transferred into the bloodstream and the Carbon Dioxide goes out the same way the Oxygen gets in to the lungs.

Lung Cancer:

Lung cancer is a disease that starts in the lungs. It is the highest cause of death by cancer in the US. Most people who are affected by it are smokers or people who experience second hand smoking. Other people have been exposed to asbestos, radon gas, or it runs through their family. Some symptoms of lung cancer are a cough that won't go away, hoarseness, shortness of breath, coughing up blood, and bone pain. Some ways to prevent it are to not smoke, have your house checked for radon gas and asbestos, eat a healthy diet full of fruits and vegetables, and exercise regularly.

Circulatory System

1: transports air, nutrients, and hormones

- **Protection of white blood cells**
- **Blood clotting occurs**

3: Blood enters the heart through two large veins, the inferior and superior vena cava, emptying oxygen-poor blood from the body into the right atrium. As the atrium contracts, blood flows from your right atrium into your right ventricle through the open tricuspid valve.

5: the musculary because the oxygen that is moved to to be distributed the muscles which makes it work

6Atherosclerosis

- **is when the ardiarys harden, plaque build up and blocks the flow of blood. The plaque is made up of cholesterol, fat and calcium**
- **Some symptoms**
 - **Mini-strokes**
 - **Heart attacks**
 - **Age 45 and older**
 - **Blood thinners, prescribing meds, medical procedures**
 - **Yes, you can be healthy by the things you eat and how often you exercise**

Muscular System:

Three functions:

1. The muscular system allows movement such as relaxing and contracting.
2. It helps with digestion, the receptors give the brain the information to help the digestive track.
3. It also helps with respiration, by helping the organs move.

The role of actin and myosin:

- ❑ **Myosin** is a thick layer of filament filled of proteins
- ❑ **Actin** is a thin layer of filament filled of proteins
- ❑ They work together by sliding over one another and do this in a repetitive motion

The difference between slow and fast twitches:

- Slow Twitch: Slow twitch muscles help enable long endurance, such as long distance running.
- Fast Twitch: Fast Twitch muscles fatigue (extreme Tiredness) but are used for more powerful bursts of speed, like sprinting.

The major disease

Cerebral Palsy is a disorder of movement that most likely occurs or is caused by damage to the immature brain, that most likely happens before birth.

Symptoms and Signs: Seizures, difficulty walking, slow writhing movements. Difficulty hearing and seeing, Oral diseases, and Mental health.

Most affected: Every 1 in 1000 newborn children will develop Cerebral Palsy, and 40% will have a severe case.

Treatment: See a specialist that will treat the child's brain and nervous systems conditions. Do some tests like, Vision impairment, Hearing impairment, speech delays, and movement disorders.

Is it preventable?: About 80% of Cerebral palsy occurs before birth or before the person is 1 month old. However only 10% of Cerebral Palsy develops as a result of complications.

Connections between all 3 systems:

The connections between all three systems is, your blood would be useless without the respiratory system, the respiratory and circulatory system work together by circulating blood and oxygen throughout the body, which helps the blood move in and out of the lungs through the pulmonary arteries and veins that connect to the heart.

