

Name: _____

Date: _____

Period: _____

The Respiratory System

Week # _____

Directions: Use p. 963 - 965 to label and describe the flow of air in the respiratory system in Figure 1.

1. _____: Air enters here and is _____, _____, and _____

2. _____: passageway for _____ and _____

3. _____: contain vocal cords

5. _____: two tubes that each lead to a _____

4. _____: or _____ has the _____ to make sure food goes to the esophagus. Also produces _____ to trap small particles to be eliminated

6. _____: contain tiny air sacs called _____ where O₂ and CO₂ are exchanged

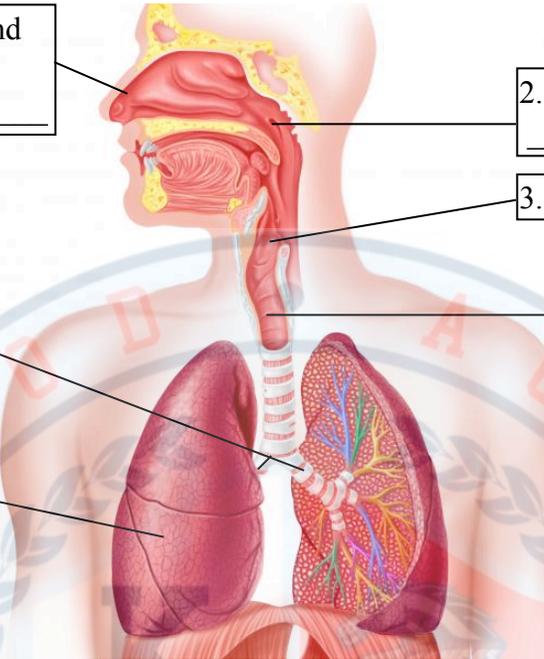


Figure 1

Directions: Use Figure 2 to answer questions 7 - 10.

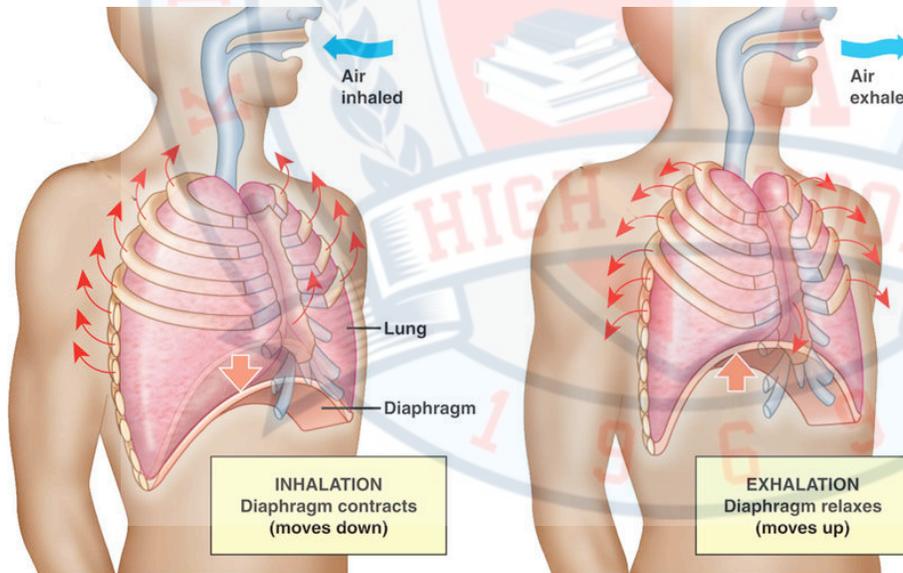


Figure 2

7. If the diaphragm is able to contract and relax, it must be:
a. a bone
b. an organ
c. a muscle
d. a cell

8. When you breathe in, your diaphragm contracts and moves _____. This means that lung volume _____.

9. When you breathe out, your diaphragm relaxes and moves _____. This means that lung volume _____.

10. Neurons can sense the level of CO₂ in the bloodstream. High levels of CO₂ automatically cause the diaphragm to contract. Why do you think this happens?

Name: _____

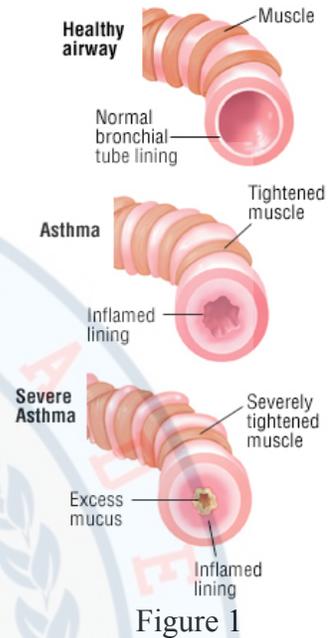
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Asthma is a long-term inflammatory condition that results in less air flow through the airways. When individuals with asthma suffer from an attack, the muscles along the bronchioles become irritated and begin to constrict, or tighten.

Figure 1 illustrates a healthy airway compared to airways affected by asthma.

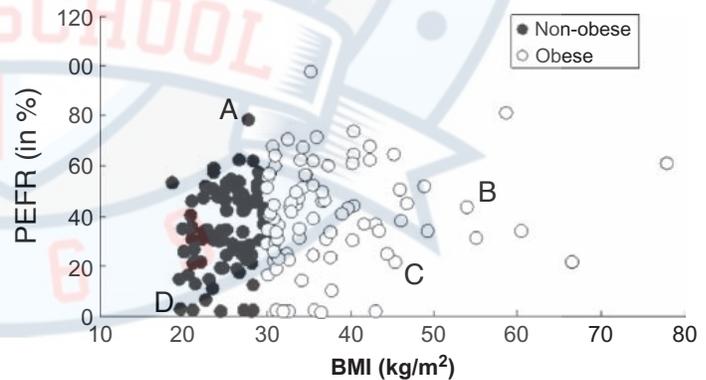
- (EMI 401) According to the passage and Figure 1, the presence of mucus in the airway indicates all of the following EXCEPT
 - an irritated airway
 - a constricted airway
 - an inflammatory response
 - a normal airflow
- (EMI 401) Which of the following is comparable to an asthma attack?
 - drinking a thick chocolate milkshake from a wide straw
 - drinking a soda from a skinny straw
 - drinking a soda from a wide straw
 - drinking a thick chocolate milkshake from a skinny straw



Some studies have suggested that being significantly overweight, or obese, can increase the amount of time it takes to recover from an asthma attack. To examine this claim, a study was conducted on 180 test subjects. Half of the test subjects had a BMI classifying them as obese, and half of the test subjects did not. The test subject's peak expiratory flow rate (PEFR) was measured immediately following the use of an asthma inhaler treatment. This rate indicates how fast a person can exhale, or breathe out.

- (IOD 201) Which of the following is true of Individual B?
 - Individual B is non-obese.
 - Individual B has a BMI of 60.
 - Individual B is obese.
 - Individual B has a PEFR of 20.

- (IOD 301) What is the BMI for individuals classified as non-obese?
 - under 30
 - under 60
 - over 30
 - over 60



- (IOD 301) Which individual has the lowest rate of exhalation?
 - A
 - B
 - C
 - D

- (IOD 301) Which of the following is true when comparing Individual A to Individual C?
 - Individual A has a higher BMI than Individual C.
 - Individual A is obese, but Individual C is non-obese.
 - Individual C has a higher BMI than Individual A.
 - Individual C has a higher PEFR than Individual A.