

## **Mastery Series: Upper Respiratory Tract**

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1. What is the difference between a conducting zone structure and a respiratory zone structure?
2. What structure defines the border between the upper respiratory structures and the lower respiratory structures?
3. What are the three kinds of tonsils? Which ones are most associated with sleep apnea snoring and ADHD?
4. What is the purpose of the eustacian tube? How is it related with middle ear infections?
5. What is the purpose of sinuses in the skull? How are they related with respiratory infections?
6. What is the purpose of the uvula?
7. What is the purpose of the epiglottis?
8. What is laryngitis?
9. Which tonsils are typically removed in a tonsillectomy? Why is this procedure done? What bacteria may be colonizing these tonsils?
10. How could *Streptococcus pyogenes* be always colonizing the tonsils, but a person rarely has symptoms of Strep Throat?

## **Upper Respiratory Tract**

## **Mastery Series Answers**

1. conducting zone carries air; respiratory zone exchanges gases with blood
2. larynx
3. enlarged adenoids are most associated with sleep apnea; palatine tonsils are most commonly removed—at the back of your throat (sometimes you can see this if they are swollen); lingual tonsils are under the tongue (when I'm sick these ones swell on me and become painful)
4. equalizes pressure between the outside pressure and the middle ear; because it opens into the back of the throat, pathogens can enter the middle ear from the throat.
5. Lighten the skull; perhaps increase resonance in the voice; they drain into the nasal passages, so pathogens can enter them from the nasal passages.
6. Moves upward when we swallow to keep food from going into your nasal passages—unless you want to be silly and make a pea come out your nose.
7. Moves downward when you swallow to prevent food from entering the trachea
8. Inflammation of the larynx (specifically the vocal cords of it)
9. Palatine; sometimes done if *Streptococcus pyogenes* is a persistent colonizer. Removing the tonsils removes the “home” *S. pyogenes* had and prevents further Strep throat infections.
10. Low levels, only begins multiplying invasively during times of suppressed immunity.