

# Part III: Airway



# **EMT Curriculum Correlation Guide**

# Airway, Ventilation and Respiration

EMT Course Topic	EMT Review Audio Lectures App	Other Resources
	Each segment is like an insightful lecture. If you don't have this app for your class, learn more at http://bit.ly/LCReady-Audio	
Airway and Airway Maintenance	Airway Maintenance and Suction Audio	
Respiration, Ventilation and Oxygenation	Ventilation and Oxygenation Audio	Discussion Board Questions (attached below)  Oxygen administration flowchart & video
Airway Overview		Airway study cards and review questions in the <u>EMT Review Plus App</u> .  Discussion Board Questions (attached below)



# **EMT Discussion Board Questions**

# Respiration, Ventilation and Oxygenation

An EMT rides on two clinical internship shifts. On the first shift the first shift preceptor says, "Everybody gets oxygen. It helps and doesn't hurt." The next shift, a different preceptor says, "Oxygen is a drug. We don't use it all that much. Only when people are actually hypoxic."

Who do you agree with? Why?

A fellow student asks you for help. She says, "I understand why we ventilate slow breathing. I just don't understand why we would ventilate rapid breathing...even if it is shallow."

How would you help this student understand?

Patients who are hypoxic develop an altered mental status. Explain how a patient's mental status might present with minor hypoxia and with significant hypoxia. How would you correct the hypoxia?

Oxygen is, in fact, a drug. It is administered for hypoxia. The American Heart Association recommended oxygen administration for patients with saturations below 94%. Hyperoxia (too much oxygen) can cause dangerous substances in the blood (free radicals) after heart attack or stroke treatment that actually do cause harm.

Adequate breathing requires both an adequate rate and adequate depth. One of the reasons shallow breathing (at any rate) can be considered failure is the concept of dead air space. Although the tidal volume can vary, the dead air space doesn't. If a patient breathes deeply with a tidal volume of 500 ml., the 150ml average adult tidal volume doesn't cause problems. The amount of air reaching the alveoli (alveolar volume) is 350 ml. But if breathing is shallow—even half of the normal breath which occurs in very rapid breathing—250 ml tidal volume minus 150 ml of dead air space results in 100 ml of alveolar volume and respiratory failure.

Hypoxia is corrected by oxygen. Minor hypoxia may result in a feeling of anxiety or anxiousness. Increasing hypoxia may cause agitation. This is because the brain is not tolerant of any reduction of the levels of oxygen.



# **EMT Discussion Board Questions**

# **Airway Overview**

For each of the following conditions or situations, describe whether the problem is with the upper or lower airway and predict what abnormal airway sound would be present. Explain your answers.

- Asthma attack
- An unresponsive patient's tongue has fallen backwards into the airway
- A young child swallowed a coin and has a partially obstructed airway
- Closed airway from an allergic patient eating peanuts
- A patient was stabbed in the chest and has a collapsed lung
- An unresponsive patient vomited and has liquid foreign mater in her airway.

- · Asthma attack lower airway, wheezing
- An unresponsive patient's tongue has fallen backwards into the airway – upper airway, snoring
- A young child swallowed a coin and has a partially obstructed airway – upper airway, stridor
- Closed airway from an allergic patient eating peanuts – upper airway, stridor
- A patient was stabbed in the chest and has a collapsed lung – lower airway, absent sounds
- An unresponsive patient vomited and has liquid foreign matter in her airway – upper airway, gurgling sound



### **EMT Curriculum Correlation Guide**

# About the resources in this curriculum guide:



# **EMT Audio Lecture apps**

We have two audio lecture series (EMT and AEMT) as well as a pathophysiology audio series for EMTs and AEMTs. These can help students get the equivalent of an insightful lecture or a solid review to supplement coursework. For details and pricing, visit <a href="http://bit.ly/LCReady-Audio">http://bit.ly/LCReady-Audio</a>



# **EMT Review Plus app**

The EMT Review Plus app contains over 1,100 items including study cards, review questions and NREMT-style practice exams, with a rationale for every answer. Critical thinking, medical terminology and pathophysiology are included. For details and pricing, visit <a href="https://bit.ly/EMT-Review-App">https://bit.ly/EMT-Review-App</a>



## **Limmer Education website**

Our resources are high quality, clinically accurate, and educationally sound, written by the nation's top EMS and allied health experts. Since 2009, our apps have been used in classrooms and by students all over the world. **LimmerEducation.com/products**