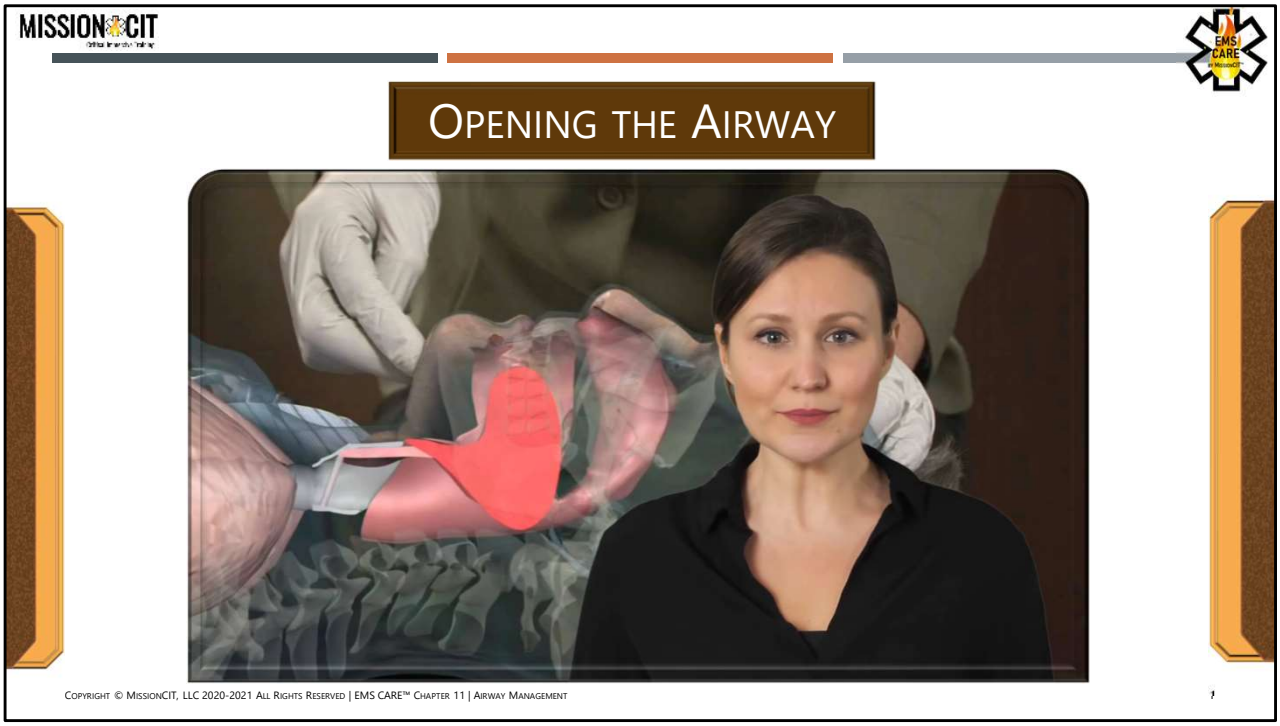
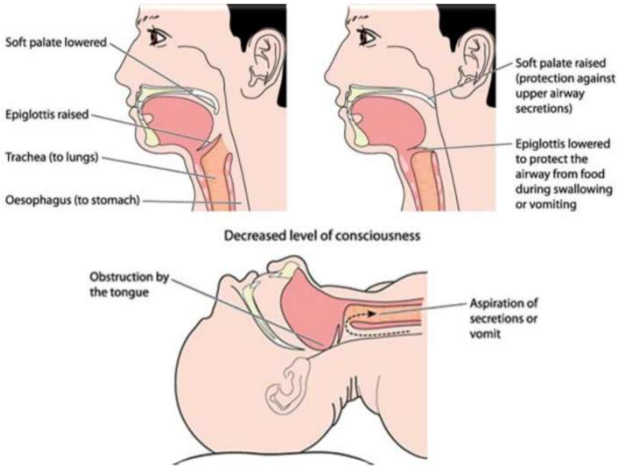


This topic covers the various techniques used to open up blocked Airways. In addition to general patient care, we will discuss first the Head-Tilt Chin-Lift Maneuver. Next, we will explore when and how we perform the Jaw-Thrust Maneuver. Then we finish up with airway management.
Good Studying.

Patient Care | The Airway

- When primary assessment indicates inadequate airway, a life-threatening condition exists
- Take prompt action to open and the maintain airway



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

2

In the last lesson, we discussed that when the primary assessment indicates inadequate airway, a life-threatening condition exists. You must take prompt action to open and maintain the airway.

Remember, a difficult airway is one where the patient will be hard to mask, ventilate, or intubation is likely to fail.

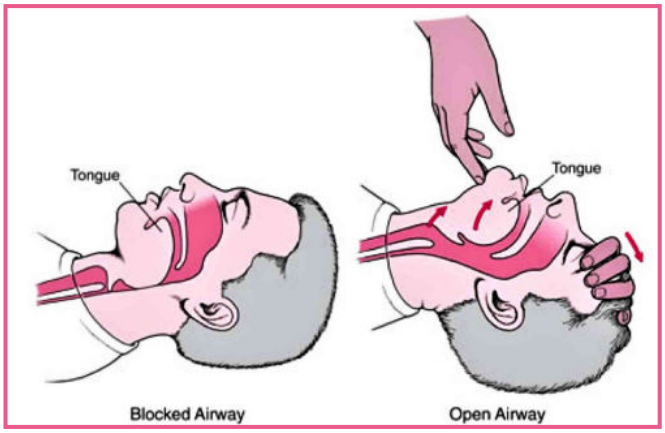
This topic is critically important, so I am going to review again the signs of an inadequate airway with you. We previously discussed these eleven conditions:

1. No signs of breathing or air movement.
2. Clear evidence of foreign bodies in the airway.
3. No air felt or heard.
4. There is an inability or difficulty speaking.
5. The patient exhibits an unusual hoarse or raspy voice.
6. The patient has absent, minimal, or uneven chest movement.
7. Abdominal breathing.
8. Diminished or absent breath sounds.
9. Abnormal noises such as wheezing, crowing, stridor, snoring, gurgling, or gasping during breathing.
10. In children and infants, nasal flaring.
11. In children, retractions above the clavicles.

MISSION CIT

Opening the Airway

- If airway is not open, use position to open it
- Indications of head, neck, spinal injury
  - ✓ Mechanism of injury known to cause such injuries
  - ✓ Any injury at or above the level of the shoulders
  - ✓ Family or bystanders give information leading you to suspect it



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

3

Now we begin to discuss opening the airway. And we first look to use the proper position technique to open it.

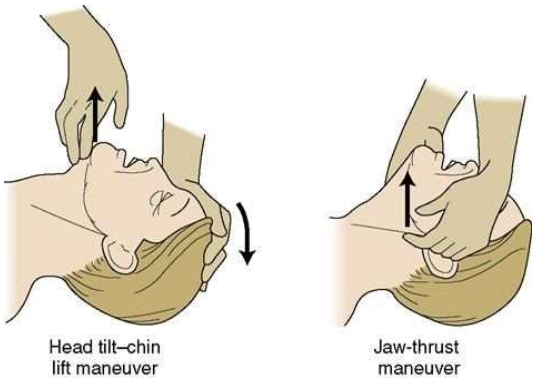
But first, EMTs must evaluate the potential for the head, neck, and spinal injury in order to choose the most appropriate method for opening an airway. Considerations include:

1. The mechanism of injury known to cause such injuries.
2. Any injury at or above the level of the shoulders.
3. Requesting family or bystanders to give information that may lead you to suspect an adverse condition.

MISSION CIT

OPENING THE AIRWAY (CONT.)

- Head-tilt, chin-lift maneuver and jaw-thrust maneuver move airway structures into position allowing air movement



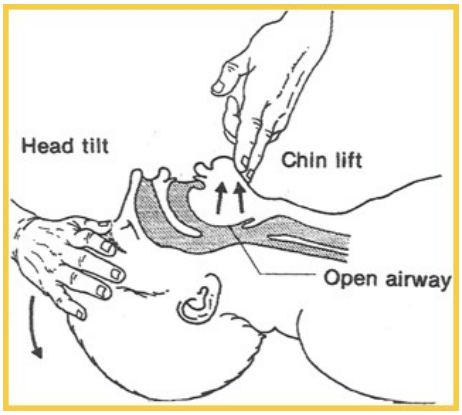
COPYRIGHT © MISSIONCIT, LLC 2020-2021 ALL RIGHTS RESERVED | EMS CARE™ CHAPTER 11 | AIRWAY MANAGEMENT

The image shows how both the Head-tilt; chin-lift maneuver and jaw-thrust maneuver move airway structures into position, allowing air movement.
Again, EMTs must evaluate the potential for head, neck, and spinal injuries in order to choose the most appropriate method for opening an airway. Situational conditions indicate:

1. The Jaw-Thrust maneuver to be used when the potential for the head, neck, and spinal injury is present.
2. The Head-tilt chin-lift maneuver to be used in all other cases.

Head-Tilt, Chin-Lift Maneuver

- The head-tilt, chin-lift maneuver is used to open the airway of a patient who does not have a spinal injury



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

As we discussed, the head-tilt, chin-lift maneuver is used to open the airway of a patient who does not have a spinal injury.
The science behind this procedure is the head tilt stretches the anterior neck muscles, lifting the tongue away from the posterior pharyngeal wall. Also moving the epiglottis away from the laryngeal inlet.
The chin lift stretches the structures more. And it pulls the mandible and tongue forward.
If a neck injury is suspected, do not tilt the head unless the jaw thrust fails.
Certain death from hypoxic airway obstruction versus the unknown risk of potential quadriplegia is the situational risk that EMTs have to manage.

Head-Tilt, Chin-Lift Maneuver (Cont.)

- Place one hand on patient's forehead and fingertips of other hand at the center of patient's lower jaw
- Tilt head
- Lift chin
- Do not allow mouth to close



- Head tilt stretches anterior neck muscles, lifts tongue away from posterior pharyngeal wall and epiglottis away from laryngeal inlet
- Chin lift stretches structures more and pulls mandible and tongue forward
- If neck injury suspected, do not tilt the head unless jaw thrust fails
- Death from hypoxic airway obstruction is much more common than quadriplegia resulting from emergency airway manipulation

Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

Perform the Head-Tilt, Chin-Lift Maneuver as follows:
Place one hand on the victim's forehead, and two fingers on the bony part of the jaw. Gently tilt the head backward. This will open the airway and lift the tongue off the back of the throat. Carefully lean over the victim and look, listen, and feel for breathing. If the victim is breathing, continue monitoring until help arrives. If not, begin CPR.
Do not apply pressure to the soft tissue of the lower jaw. And do not allow the mouth to close.

Jaw-Thrust Maneuver

- Jaw-thrust maneuver, side view
- Inset shows EMT's finger position at angle of the jaw just below the ears



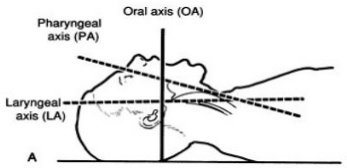


Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

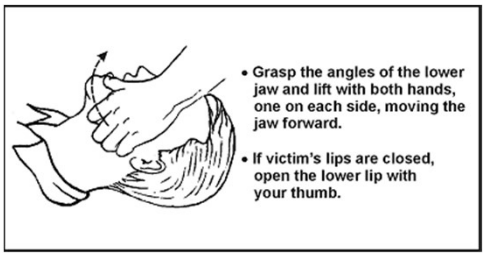
This is a side view image of the Jaw-thrust maneuver. It is the safest method to restore breathing when a neck injury is suspected. The mandible is brought forward by placing fingers behind the jaw angle and lifting.
The inset shows the EMT's finger position at an angle of the jaw just below the ears. Again, do not apply pressure to the soft tissue of the lower jaw and do not allow the mouth to close.
Now, review the technique for opening an airway using a head-tilt, chin-lift technique before proceeding to the next slide.

Jaw-Thrust Maneuver (Cont.)

- Keep patient's head, neck, and spine aligned, moving patient as a unit into the supine position
- Kneel at the top of patient's head
- Place one hand on each side of patient's lower jaw, at angles of jaw below ears
- Stabilize patient's head with your forearms



Supine



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

8

The four-step process for the jaw-thrust maneuver is:

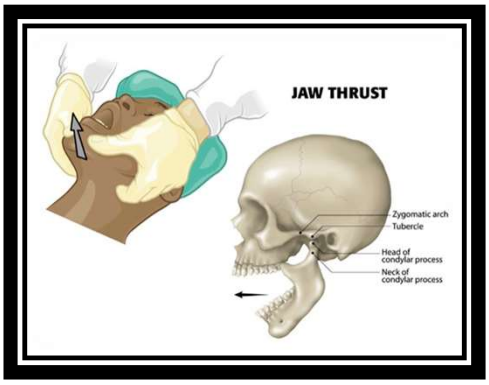
1. Keep the patient's head, neck, and spine aligned, moving the patient as a unit into the supine position.
2. Kneel at the top of the patient's head.
3. Place one hand on each side of the patient's lower jaw, at angles of the jaw below the ears.
4. Stabilize the patient's head with your forearms.

Note that you may need to retract the patient's lower lip with your thumb to keep the mouth open.

Now, consider a patient with a broken lower jaw. Given that he likely has a traumatic mechanism of injury, discuss how you might open his airway.

Performing Jaw-Thrust Maneuver

- Using index fingers, push angles of patient's lower jaw forward
- You may need to retract patient's lower lip with your thumb to keep the mouth open
- Do not tilt or rotate patient's head



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

Three more points about performing the Jaw-Thrust Maneuver:

1. Using index fingers, push angles of the patient's lower jaw forward.
2. You may need to retract the patient's lower lip with your thumb to keep the mouth open.
3. Do not tilt or rotate the patient's head.

Airway Management

- After airway has been opened, position must be maintained to keep airway open
- Airway must be cleared of secretions and other obstructions



Copyright © MissionCIT, LLC 2020-2021 All Rights Reserved | EMS CARE™ Chapter 11 | Airway Management

Now, a bit about Airway Management after the airway has been opened. Note that the position must be maintained to keep the airway open.
Be aware that the airway must be cleared of secretions and other obstructions.
Now recall various patient scenarios requiring airway management from personal experience. What could have been done better. Assessment? Process? Airway Management. What would you like to improve. This brings us to the end of this lesson and Justin will be guiding you in the next lesson. Good studying.