

# Educating the Educator: Teaching Airway Adjunct Techniques in Athletic Training

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The 5th edition of the *Athletic Training Education Competencies (Competencies)* now requires athletic training educators (ATEs) to introduce into the curriculum various types of airway adjuncts including: (1) oropharyngeal airways (OPA), (2) nasopharyngeal airways (NPA), (3) supraglottic airways (SGA), and (4) suction. The addition of these Acute Care (AC) knowledge and skill competencies, as well as others (eg, rectal temperature, oxygen saturation, blood glucose level, nebulizers) were incorporated into the curriculum to reflect the National Athletic Trainers' Association's published position statement recommendations or those in development.<sup>1</sup> The specific knowledge and skill statements addressing these educational areas can be found in Table 1. However, for many ATEs teaching airway adjuncts and suctioning is an unfamiliar concept. Therefore, the purpose of this column is to provide the ATE with a resource document on how to use and teach different adjunct breathing devices within their educational program.

## ADJUNCT BREATHING DEVICES

Adjunct breathing devices commonly used in athletic training have three main functions: (1) clear and maintain a patent airway, (2) provide adequate ventilation and promote pulmonary gas exchange, and (3) supply supplemental oxygen.<sup>2</sup> Clearing an obstructed airway can be accomplished using either a mechanical or manual suction device. Oropharyngeal and/or nasopharyngeal airways are used to assist in maintaining an airway and enhance the effects of positive pressure ventilation (eg, bag-valve ventilation) during a respiratory or cardiac emergency. Finally, supplemental oxygen therapy (which is not discussed in this column) is administered to patients demonstrating signs of hypoxia to increase the overall amount of oxygen delivered to the body's cells, thus increasing a patient's chances of survival during an emergency.<sup>2</sup>

## Suction

Suction devices are indicated when gurgling sounds are heard during breathing or artificial ventilations; when breathing is impeded by vomitus, blood and/or body fluids, respiratory secretions, and small particles; or when the recovery or HAINES (High-Arm IN Endangered Spine) positions and/or finger sweep are ineffective at clearing and maintaining a patent airway.<sup>2</sup> Suctioning is contraindicated when brain tissue is visible in the pharynx secondary to a skull trauma (eg, fracture).<sup>2</sup>

Several types of suction devices are available to athletic trainers (ATs), including: (1) mechanical wall mounted units, (2) mechanical portable units, and (3) manual (hand-powered) units.<sup>2</sup> Wall

Table 1. Acute Care of Injuries and Illnesses Competencies

Number	Competency
AC-9	Differentiate the types of airway adjuncts (oropharyngeal, nasopharyngeal and supraglottic airways) and their use in maintaining a patent airway in adult respiratory and/or cardiac arrest.
AC-10	Establish and maintain an airway, including the use of oro- and nasopharyngeal airways, and neutral spine alignment in an athlete with a suspected spine injury who may be wearing shoulder pads, a helmet with and without a face guard, or other protective equipment.
AC-11	Determine when suction for airway maintenance is indicated and use according to accepted practice protocols.

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mounted suction units are powered by an electrical source (eg, hospital units) or in some cases a car's manifold (eg, ambulance). Portable mechanical suction units generate their vacuum suction pressure via an electrical source, battery, or an oxygen-powered device. Hand-powered suction devices (Figure 1) generate their vacuum pressure when a handle/trigger is compressed. Regardless of the suction unit utilized, all devices must be able to generate a negative vacuum suction pressure greater than 300 mm Hg when the suction tubing is clamped and be powerful enough to provide airflow greater than 40 L/min at the end of the suction tubing.<sup>2</sup>

When suctioning, it will be necessary to observe body substance isolation (BSI) precautions, especially when performing a finger sweep. A finger sweep (performed only when an object is visible in the airway) is essential because it removes large foreign particles before inserting the suction tip into the patient's airway. A soft suction tip/catheter is recommended when suctioning low viscosity type fluids, while removing vomitus or thick secretions often requires a hard or rigid suction tip<sup>2</sup> (Figure 2). If fluid or foreign matter is allowed to accumulate in the airway, it can pass through the trachea to the lungs, rather than the esophagus, thereby increasing the risk of aspiration. General directions for the use of a hand-powered suction device are found in Table 2. Always follow the manufacturer's recommendations and instructions for proper use.

Remember, suctioning limits the ability to properly ventilate a patient and the longer one suctions, the more oxygen-deprived the patient may become. Therefore, it is necessary to limit the amount of suctioning (normally no more than 15 seconds for an adult) in order to adequately ventilate and/or perform adequate chest compressions. Suctioning can also remove oxygen from the airway and lungs<sup>3</sup> requiring an AT to constantly monitor a patient's pulse rate or oxygen saturation levels (using a pulse oximeter). If changes are noted (decreased pulse rate or oxygen saturation levels), stop suctioning and resume positive pressure ventilation. Finally, avoid jabbing the suction tip into the oral cavity to minimize soft tissue damage.<sup>2</sup>



**Figure 1.** Hand-Powered Suction Devices

**A. V-VAC™ Manual Suction Unit**  
(Laerdal Medical, Wappingers Falls, NY)

**B. Ambu Res-Cue Pump**  
(Ambu Inc., Glen Burnie, MD)

**Table 2.** Using a Manual Suction Device

Steps	Procedure
1.	Practice body substance isolation procedures.
2.	Assemble the unit by attaching the suction tubing and the suction tip to the suction tubing.
3.	If <b>no</b> spinal injury is suspected turn the patient's head to the side. If a spinal injury is suspected, manually stabilize the spine and log roll the patient to his/her side.
4.	Open the patient's mouth with a gloved hand.
5.	Remove solid foreign material and/or large volumes of body fluid using a finger sweep.
6.	Measure the distance of insertion of the suction tip from the patient's ear lobe to the corner of the mouth.
7.	Insert the suction tip into the throat using the measurement from above as a guide. Do not insert the suction tip deeper than the base of the tongue or further than what can be visualized.
8.	Suction from the back of throat outward, use a circular method, and avoid losing sight of the tip. Suction an adult no longer than 15 seconds and 10 seconds in a pediatric patient.
9.	Monitor the patient's response to suctioning and provide necessary interventions such as positive pressure ventilations using a bag-valve. If the patient begins to gag, withdraw the suction tip until they stop gagging and then resume suctioning.

Adapted with permission from Miller M, Berry D. *Emergency Response Management for Athletic Trainers*. Baltimore: Lippincott Williams & Wilkins; 2011: pp. 211-212.



**Figure 2.** Insertion of Suction Tip/Catheter

## Airway Adjuncts

Airway adjunct devices such as OPAs, NPAs, and SGAs assist in maintaining an airway established during the primary assessment through the use of the head-tilt/chin-lift or jaw-thrust with extension or jaw-thrust without extension (in the case of cervical spine injured patient). Both the head-tilt/chin-lift and jaw-thrust maneuver move the tongue (which is the most common cause of an airway obstruction) away from the back of the throat allowing air to enter into the lungs. As the names imply, an OPA is inserted into the patient's mouth while an NPA is inserted into the nose. When placed properly, OPAs and NPAs assist in keeping the tongue away from the back of the patient's throat, thereby helping to preserve the airway. An improperly placed airway may also push the tongue further into airway, causing further blockage. A supraglottic airway, also known as blind insertion airway device (BIAD)<sup>4,5</sup>, is designed to create a seal in the posterior pharynx and obstruct the esophagus, forcing air into the trachea (with the exception of the laryngeal mask airway [LMA]).

### Oropharyngeal Airways

An OPA is a rigid plastic device forming the letter "J." It is designed to fit the natural contour of the mouth and throat and is useful when the tongue falls back against the posterior pharynx. The OPAs range in size from infant to adult large (40mm-110mm) and are normally stored in an airway management kit. Oral airways (Figure 3) possess either a hole in the center of the device (Guedel Oral Airways) or grooves along the sides (Berman Airways) to allow air to pass through the trachea to the lungs. If sized correctly, the OPA's "flanged" end should rest on the lips and a resuscitation mask or bag-valve should fit over the airway device without any impedance.

Because an OPA is inserted into the posterior throat it is possible to stimulate the pharyngeal reflex (gag reflex) and/or facilitate a laryngospasm in a conscious or semi-conscious patient,<sup>6</sup> inducing emesis and further obstructing the airway. Therefore, OPAs are contraindicated in a responsive patient with an intact gag reflex or cough.<sup>7</sup> An OPA is ONLY indicated for an unresponsive patient without a gag reflex. If the unresponsive patient begins gagging while inserting the OPA; immediately remove the airway and reattempt insertion at a later time, usually after the level of consciousness has deepened and/or consider the use of an NPA until the OPA can be inserted. An OPA may also be contraindicated in the presence of some types orofacial trauma due to the difficulties inserting the device or because of the increased risk of further injury.<sup>2</sup> Be prepared to suction the airway pre and post OPA insertion and always avoid pushing the tongue further into the throat when inserting the device, causing a more significant airway obstruction.<sup>8</sup>

When sizing an OPA, measure from the corner of the patient's mouth to the tip of the earlobe (an anatomically correct lobule – not altered by body art or piercings). An alternative approach is to measure from the center of the patient's mouth to the angle of the jaw. Steps describing how to properly insert an OPA are found in Table 3. Once inserted, the AT should note the position of the airway adjunct. If sized correctly the OPA's flange should rest on

the patient's lips. If it falls past the lips or does not rest on the lips then it is likely the OPA has been sized incorrectly and needs to be removed and resized. Too large of an OPA will increase the risk of the device blocking the airway and prevent proper placement of a resuscitation mask or bag-valve; while too small of an OPA may cause the tongue to block the airway.<sup>2</sup> To remove the OPA simply withdraw the OPA following the contour of the airway while holding open the lower jaw.

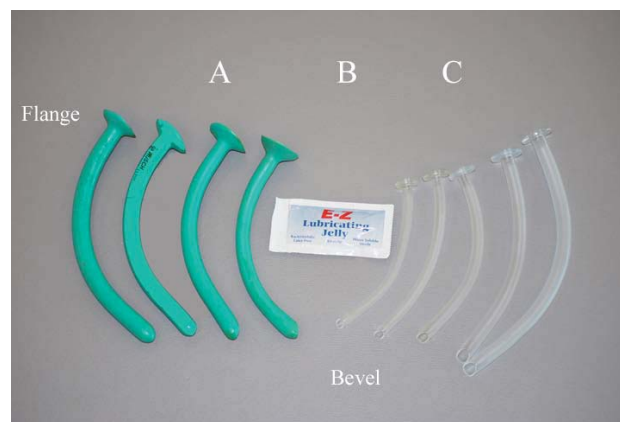
### Nasopharyngeal Airways

Nasopharyngeal airways, also known as "trumpets," are made of a soft flexible material with a beveled tip (right side) and are normally inserted into the right nasal passageway to help secure an airway. Airways range in size from 6.5 mm-8.5 mm (28FR-36FR, FR=French) and require the use of a water-soluble lubricant (eg, K-Y® Brand Jelly, Johnson & Johnson, New Brunswick, New Jersey; Surgilube®, Fougera, Melville, NY) to decrease the risk of damage to the nasal mucosa and prevent bleeding<sup>2</sup> (Figure 4). An NPA also contains a hole in the center of the device to allow air to pass down the trachea to the lungs. If an NPA has been sized correctly, the flared end of the device should rest on the patient's right naris and a resuscitation mask or bag-valve should fit over the airway without any impedance.



**Figure 3.** Oropharyngeal Airways







- A. Berman Airways
- B. Guedel Oral Airways



**Figure 4.** Single Use Nasopharyngeal Airways

- A. Latex-free Robertazzi Nasal Airways
- B. Lubricating Jelly
- C. Soft PVC Airways with Bevel Tip

**Table 3.** Insertion of an oropharyngeal airway (OPA)

Steps	Procedure	Image
1.	Assume BSI.	
2.	Establish the patient's level of responsiveness.	
3.	Establish an airway using a head/tilt-chin/lift or jaw-thrust (with or without extension) maneuver if a spinal injury is suspected.	
4.	Correctly size the OPA.	
5.	Using a cross-finger technique open the patient's mouth.	
6.	Place the tip of the OPA's tip against the roof of the mouth.	
7.	Gently slide the OPA down until resistance of the soft palate is noted. Rotate the airway 180° so the OPA's tip is now pointing down into the throat.  <i>Note: The OPA may also be started so that the point is against the inside of the cheek and then rotated 90° so the tip of the OPA is pointed down into the throat.</i>	
8.	Continue inserting the OPA until the flange rests on the lips.	
9.	Prepare to artificial ventilate using a resuscitation mask or bag-valve with a C-E hand placement technique (the thumb and index finger form a "C" to clamp the mask to the patient's face digits 3-5 form the letter "E" to lift the jaw).	

Adapted with permission from Miller M, Berry D. *Emergency Response Management for Athletic Trainers*. Baltimore: Lippincott, Williams & Wilkins; 2011:214

An NPA can be inserted in a responsive or unresponsive patient with an intact gag reflex or in an patient sustaining oral trauma<sup>9</sup> where an OPA would be contraindicated, or have a clinched jaw.<sup>8</sup> NPAs are contraindicated in the presence of a basilar skull fracture,<sup>9</sup> epistaxis, nasal deformity, and past history of nasal fractures.<sup>2</sup> Establishing a clinical diagnosis of a basilar skull fracture in the out-of-hospital setting, while not impossible, can be difficult as many of the signs of a fracture do not readily present themselves during a secondary assessment<sup>9</sup> (eg, Battle sign) or requires diagnostic testing equipment (eg, presence of CSF) to increase testing sensitivity. The evidence for avoiding the use of NPAs in the out-of-hospital setting is solely based upon two case reports.<sup>10-11</sup> Therefore, securing the airway should take precedent over the possible presence of a basilar skull fracture.<sup>9</sup> Athletic trainers would be prudent to consult with their supervising physician regarding the use of NPAs as caution should be used if an NPA is placed in a patient with head trauma in order to avoid penetration through the cranium to the brain.

When sizing an NPA, measure from the nostril to the tip of the earlobe. An alternative method is to measure from the nostril to the angle of the jaw. The diameter of the NPA should also be no larger than the patient's nostril. The right naris is typically the first choice for insertion, as the right septum tends to be straighter. If resistance is felt during insertion, STOP, do not force the NPA any further. Rather, remove the NPA and reattempt inserting the device into the left naris. If resistance is still felt, discontinue and continue providing care as necessary as complications can occur when attempting to insert a NPA, even by trained physicians.<sup>12</sup> Steps describing how to properly insert an NPA can be found in Table 4.

If the NPA is placed correctly, the distal end should rest approximately 10 mm above the epiglottis, separating the soft palate from the posterior wall of the oropharynx.<sup>13</sup> An NPA that is too long increases coughing and can stimulate the gag reflex as well as become an obstruction itself for airflow while an NPA that is too short will not adequately separate the soft palate and pharynx.<sup>2</sup> To remove the NPA simply withdraw the device following the contour of the nasal passageway.

#### *Supraglottic Airways*

The use of supraglottic (part of the larynx above the glottis, where the vocal cords reside) airways (SGA) also known as "blind insertion airway devices" or BIAD<sup>4</sup>, were introduced in the early 1970s to be utilized by individuals untrained to intubate the trachea.<sup>14</sup> Today, multiple types of SGAs (Figures 5-7) exist in the marketplace, and are inserted into the pharynx without visualization during placement (hence the name, blind insertion). With the exception of the laryngeal mask airway (LMA) (Figure 8), SGAs are designed to create a seal in the posterior pharynx and obstruct the esophagus, forcing air into the trachea. An LMA is designed to only create a supraglottic seal by their placement in the hypopharynx (posterior pharyngeal space). All devices utilize air to inflate a pharyngeal and esophageal seal (cuff). The time to insert an SGA is under 30 seconds<sup>15</sup> which facilitates minimal interruption of basic ventilator or cardiopulmonary resuscitation support. At present, out-of-hospital use of SGAs is typically reserved for emergency medical



**Figure 5. Pharyngeal-Tracheal Lumen (PtL)®**  
Gettig Pharmaceutical Instrument Company, Spring Mills, PA.


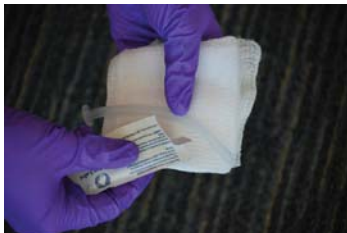






**Figure 6. Esophageal Tracheal Combitube ®**  
The Kendall Company, Mansfield, MA.



**Figure 7. King Airways**  
King Systems, Noblesville, IN.

**Table 4.** Insertion of an nasopharyngeal airway (NPA)

Step	Procedure	Image
1.	Assume BSI.	
2.	Establish the patient's level of responsiveness.	
3.	Establish an airway using a head/tilt-chin/lift or jaw-thrust (with or without extension) maneuver if a spinal injury is suspected.	
4.	Correctly size the NPA.	
5.	Coat the NPA with a water-soluble lubricant.	
6.	Flare the nares to reveal the airway, placing the NPA's bevel edge against the right septal wall.  <i>Note:</i> If resistance is felt in the right nare, consider using the left instead – however, DO NOT rotate the NPA when inserting in the left nare.	
7.	Gently insert the NPA parallel to the nasal floor following the contour of the nasal passage and the device. Avoid lifting the NPA upward.	
8.	Continue inserting until the flange rests on the nare.	
9.	Prepare to artificial ventilate using a resuscitation mask or bag-valve with a C-E hand placement technique (the thumb and index finger form a "C" to clamp the mask to the patient's face digits 3-5 form the letter "E" to lift the jaw).	

Adapted with permission from Miller M, Berry D. *Emergency Response Management for Athletic Trainers*. Baltimore: Lippincott, Williams & Wilkins; 2011:216-217



**Figure 8.** The Laryngeal Mask Airway  
North America, Inc., San Diego, CA

technicians (EMT) and paramedics, normally in situations where a difficult airway has been identified or as a rescue airway when an endotracheal intubation fails.

Supraglottic airways are designed with either a dual lumen (channel) (King LTS-D, LTS II, King Systems, Noblesville, IN; Combitube™, Covidein, Boulder, CO) or single lumen (KING LT®, KING LT-D™; LMA). While each device offers a slightly varying design and criteria for insertion (age, height and weight), all devices require an unresponsive patient with an absent gag reflex and no evidence/suspicion of injury to the esophagus. An inadvertent misplacement or dislodgement may create an obstructed airway that would be disastrous to the patient. Therefore, once inserted continuous monitoring for airway patency is necessary.

In the absence of suspected head and spinal injury, insertion of the SGA is accomplished with slight flexion of the neck and extension of the head. While maintaining control of the tongue (Figure 9), the SGA is introduced into the mouth to the depth indicated by the device being utilized. An appropriate placement of all SGAs is required to obtain a seal and the use of lubrication is recommended with during insertion. Once appropriately placed, a device specific amount of air is used to inflate the pharyngeal seal and where equipped, the esophageal seal. The attachment of a resuscitator bag with evaluation of placement occurs to confirm an ability to provide adequate ventilation. Deflation of the seals must occur when removing the device. Finally, the probability for vomiting is high following removal of an SGA. Be prepared to manage the airway through proper positioning and suction. An excellent article for review of alternative airways is Guyette, et al<sup>5</sup>, *Alternative airways in the prehospital setting (resource document to NAEMSP position statement)*.

## Equipment

Practicing airway adjunct skills requires the use of the following pieces of equipment: (1) airway management trainers, (2) OPAs, (3) NPAs, (4) water-soluble lubrication, (5) personal protective equipment and (6) miscellaneous equipment such as towels, gauze, tongue depressors, etc. The most costly piece of equipment

will be the Airway Management Trainer. These trainers range in price (retail) from \$400.00 to \$1400.00 depending on the manikin features. I (DB) have used both the Nasco Life/form “Airway Larry” Adult Airway Management Trainer with stand (Figure 10) and Nasco Life/form® Airway Trainer without stand (Figure 11). Both of these airway manikins, according to one manufacture website, “simulate nonanesthetized patients for practicing intubation - ventilation - suction and CPR techniques”<sup>16</sup> by providing “realistic anatomy and landmarks including teeth - tongue - oral and nasal pharynx - larynx - epiglottis - arytenoids - false cords - true vocal cords - trachea - lungs - esophagus and stomach.”<sup>16</sup> Both trainers allow students to practice oral and nasal intubation, as well as Combitube™ insertion. The biggest difference between the two manikins, besides the price, is “Airway Larry” represents an adult with a larger mouth. This means more room to maneuver the OPA and suction, making it easier for the students to grasp the required skills. The Nasco Life/form® Airway Trainer represents a smaller adult and is more difficult to work with when introducing the OPA and suction for the first time (Appendix 1).

The OPAs and NPAs can also be purchased from the manufacturers listed in Appendix 1. Both can be bought as singular items or as a kit. A Berman airway kits typically contain 6 to 7 different sized airways per kit and average between \$3.25 (Savelives.com) to \$17.95 (CPR Saver). Guedel airway kits average between \$6.75 (Savelives.com) to \$19.95 (CPR Saver). Latex-free NPA airways kits typically include 6 NPAs and 6 packets of water-soluble lubrication and averages between \$17.95 (Savelives.com) to \$19.95 (CPR Saver). Nasopharyngeal airways do require a water-soluble lubricant to properly insert the airway and typically an 8-oz pump spray bottle will accompany an airway management trainer.

## Teaching the Skill

One challenge to teaching airway adjunct skills is how to keep all of the students engaged when limited resources are available. The skills themselves are not difficult to master; it is often the lack of adequate equipment that increases the lag time between students’ practice sessions. This lag time, in combination with students’ inability to see the importance of these skills (because



**Figure 9.** Tongue Depressor and Miller Laryngoscope Blade  
Used to control the tongue during an airway insertion.

they have never seen it in the real world) devalues the experience and students do not always take the skill session seriously. The importance of these skills must be stressed in the out-of-hospital setting and the necessity for proper practice.

I have also been fortunate the past several years to have at least two airway management trainers or manikins where the OPA fits into the airway at my place of employment. This allows for station-based activities that help to provide students with an opportunity to practice OPA and NPA insertion for both adults and pediatric patients (Figure 12). The challenge as a single instructor is watching multiple stations at one time. To streamline this process I try to use my teaching assistant to assess the students at each of the stations. When this is not possible I discreetly try to have my “best” students in class practice the skills first. I assess their competence and then assign them to watch over an airway management trainer so that I have now doubled or tripled my eyes. Another suggestion would be to utilize skill sheets and have students not engaged with the psychomotor skill(s) perform an evaluation of their peers. This provides feedback to the instructor as well as the student. A final strategy may include having student digitally record their performance for the instructor to review at a later date

When lack of equipment is the issue, consider alternative resources. If your institution offers other health science programs such as nursing, determine if their simulation manikins accept OPAs and NPAs (most do). The local emergency medical services system may also possess airway-training manikins and may be willing to “guest lecture” and/or allow you to use their equipment. Not only does this allow the athletic training program to meet the educational competency, but it also meets the health provider accreditation standard. Finally, check with the local American Red Cross and American Heart Association to determine whether they rent the airway management trainers.

When executing the skills there are several steps to observe that students often perform incorrectly. First, rather than inserting the OPA or NPA while kneeling at the top of the head, a student may try to insert the device while kneeling from the side (not the worst thing) or, they will position the head and stand where the patient’s torso would be. In a live situation this is unlikely to occur, nonetheless, the skill should be practiced the correct way as hand position may change between the top of the head and when standing where a patient’s torso would be located. Second, when attempting to rotate the airway 180° so the tip of the OPA is now pointing into the throat, a student will often attempt to rotate the OPA toward them, rather than away from them. Moving away from the hand performing the cross-finger technique will offer students more room to maneuver the OPA. It should also be



**Figure 10.** Life/Form “Airway Larry” Adult Airway Management Trainer with Stand



**Figure 11.** Life/Form Adult Airway Management Trainer without Stand

noted that some instructors do not teach students to place their fingers in anyone’s mouth. Thus, the use of a tongue depressor or another device (Figure 9) to control the posterior tongue during insertion facilitates anatomic placement (no rotation) of the OPA. A final alternative approach to teaching OPA insertion would be externally displacing the mandible with the thumb or fingers and then inserting the OPA on a 90° axis from the corner of the mouth works when no equipment exists to manage the tongue. When removing the OPA, students will often just grab the flange and pull the airway out. In an actual patient they would need to open the mouth by moving the mandible downward. Finally, students often place the OPA off to the side making it easier for subsequent



**Figure 11.** Airway Adjunct Practice Stations. Use a regular CPR manikin when, and if possible, to practice positive ventilation with a bag-valve inserted with an airway adjunct.

student to readily identify the properly sized airway. Try placing the airways in a bowl or bag and then have the student draw out the airways until they find the correct size.

Nasopharyngeal airways are much easier to insert than OPAs. The issue with these devices is the mess they can make when using the lubrication required for insertion, especially the pump-spray that comes with the airway management trainers. I (DB) have found that lubricating the device once helps to limit the excessive accumulation of lubrication that will collect in the airway management trainer's nasal cavity. When teaching, if only one NPA is lubricated (due to sizing issue) it becomes very easy for subsequent students to identify the correct size. To remedy the selection of the proper NPA size, pre-lubricate all of the NPAs. This makes selection now based on size, rather than lubrication.

The final teaching suggestion is to integrate the skill just acquired by the students into different scenarios allowing student to demonstrate decision-making and skill integration ability.<sup>1</sup> Students may be able to insert airway adjunct, but will they remember under what circumstances these devices can be applied when dealing with a patient with multiple issues based on the primary, secondary, and ongoing assessment? Who will be responsible for inserting the device in the presence of two rescuers, seeing that the skill is often practiced individually? What if a complication arises while providing care, such as the bag-valve does not fit over the patient's face or the patient begins to vomit while providing rescue breaths? These are all real life events that will and do take place, which is why gaining practical experience with real life applications readies students to become competent professionals.

## CONCLUSION

The concepts of airway adjuncts, especially those required by the educational competencies should not be viewed as a challenge, rather they should be viewed as an advancement of the profession. Yes, it does add to already long list of knowledge and skills required for an entry-level AT, however, these are also skills required for proper emergency care of a patient. If we are truly going to be the first on the scene of an emergency situation then having the requisite training in one of the most fundamental skills taught in every emergency medical responder course is important.

## Acknowledgement

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**Appendix 1. Airway Adjunct Equipment Resources**

<b>Company</b>	<b>Web Address</b>	<b>Airway Management Trainers</b>	<b>Retail Price</b>
Savelives.com	<a href="http://www.savelives.com">http://www.savelives.com</a>	Simulaids Adult Airway Management Trainer Torso	\$1063.42
		Nasco Life/form® Airway Management Trainers	\$391.00-\$598.00
		Nasco Life/form® “Airway Larry” Adult Airway Management Trainer with Stand	\$790.00
eNasco	<a href="http://www.enasco.com">http://www.enasco.com</a>	Nasco Life/form® “Airway Larry” Adult Airway Management Trainer	\$575.00
		Nasco Life/form® Advanced “Airway Larry” Trainer Head without Stand	\$670.00
CPR Saver	<a href="http://www.cpr-savers.com">http://www.cpr-savers.com</a>	Nasco Life/form® “Airway Larry” Adult Airway Management Trainer Head	\$495.00
Laerdal	<a href="http://www.laerdal.com">http://www.laerdal.com</a>	Laerdal® Airway Management Trainer	\$ 1,895.00
Simulaids	<a href="http://www.simulaids.com">http://www.simulaids.com</a>	Simulaids Adult Airway Management Trainer Torso	\$1128.10
		Simulaids Economy Adult Airway Management Trainer	\$824.20

Speak with a company representative to inquire about educational pricing.