PERFORMANCE OBJECTIVES
Demonstrate competency in performing oropharyngeal suctioning using a rigid and flexible suction catheter and a bulb syringe.

CONDITION
Suction a simulated patient who is either conscious or unresponsive and is unable to maintain a patent airway due to copious oral secretions. Necessary equipment will be adjacent to the patient or brought to the field setting.

EQUIPMENT
Simulated adult and pediatric airway management manikin, oxygen tank with connecting tubing, suction device with connecting tubing, or hand-powered suction device with adaptor, hard and flexible suction catheters, bulb syringe, normal saline irrigation solution, container, gloves, goggles, masks, gown, waste receptacle, timing device.

PERFORMANCE CRITERIA
• Items designated by a diamond (✦) must be performed successfully to demonstrate skill competency.
• Items identified by double asterisks (**) indicate actions that are required if indicated.
• Items identified by (§) are not skill component items, but should be practiced.
• A clean technique must be maintained throughout suctioning procedure.

<table>
<thead>
<tr>
<th>Skill Component</th>
<th>Key Concepts</th>
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</thead>
<tbody>
<tr>
<td>✦ Take body substance isolation precautions</td>
<td>• Mandatory personal protective equipment - gloves, goggles</td>
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<td></td>
<td>• Situational - masks, gown</td>
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<tr>
<td>✦ Assess patient for the need to suction oral secretions</td>
<td>• Indications for suctioning: noisy respirations, coughing up secretions, respiratory distress, or patient request.</td>
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<tr>
<td>✦ Open suction kit or individual supplies</td>
<td>• Use the inside of the wrapper to establish a clean field.</td>
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<tr>
<td>✦ Fill container with irrigation solution</td>
<td>• Saline or water is used to flush suction catheter as needed.</td>
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<tr>
<td>✦ Ensure suction device is working</td>
<td>• Battery operated suction machine or hand-powered suction devices may be used. An adaptor for a flexible catheter is required with hand-powered suction devices.</td>
</tr>
<tr>
<td>** Set appropriate suction setting:**</td>
<td>• Excessive negative pressures may cause significant hypoxia, damage to tracheal mucosa or lung collapse.</td>
</tr>
<tr>
<td>• Adult - between 80-120 mmHg</td>
<td>• Never insert catheter past the base of the tongue. This may stimulate the gag reflex and cause vomiting.</td>
</tr>
<tr>
<td>• Pediatric and the elderly - between 50-100mmHg</td>
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RIGID CATHETER (TONSIL TIP, YANKAUER)
PROCEDURE

<table>
<thead>
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<tr>
<td>✦ Remove oxygen source - if indicated</td>
<td>• Oxygen should be maintained until ready to suction.</td>
</tr>
<tr>
<td></td>
<td>• A nasal cannula does not need to be removed for oropharyngeal suctioning.</td>
</tr>
<tr>
<td>✦ Connect rigid catheter to suction tubing/device</td>
<td>• Keep catheter in package until ready to use.</td>
</tr>
<tr>
<td></td>
<td>• Provide a clean field for catheter if reuse is indicated.</td>
</tr>
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<td>Key Concepts</td>
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</table>
| ♦ Open patient’s mouth by applying pressure on the chin with your thumb | • Thumb pressure on the chin displaces the jaw. DO NOT use fingers to open the mouth. The crossed-finger technique may result in injury to the rescuer and may puncture gloves.  
*Note: The crossed-finger method is a step found on the National Registry Skills Exam.*  
• DO NOT force teeth open. Use a flexible catheter if unable to open the mouth. |
| ♦ Insert rigid catheter into mouth without applying suction | • The patient is not being oxygenated during this step and applying suction would deplete any oxygen reserve. |
| ♦ Advance catheter gently to depth measured | • Never insert catheter past the base of the tongue. This may stimulate the gag reflex, cause vomiting, and bradycardia. |
| ♦ Suction while withdrawing using a circular motion around mouth, pharynx and gum line | • Suctioning longer than recommended time will result in hypoxia. Maximum suction time depends on patient’s age and tolerance.  
• Rigid catheters are contraindicated for infants less than 1 year of age. |
| **Maximum suction time of 5-15 seconds:**  
• Adults maximum 10-15 seconds  
• Peds maximum of 5-10 seconds | • Ventilation rates for pediatric patients vary due to a wide age range. |
| ♦ Replace oxygen source or ventilate patient at approximate rate of:  
• Adult - 10-20/minute  
• Peds - 12-20/minute | • Observe patient for hypoxemia: dysrhythmias, cyanosis, anxiety, bronchospasms, and changes in mental status.  
• If vagal stimulation occurs, the patient may experience bradycardia, especially pediatric patients.  
• Allow patient to rest and regain adequate oxygen levels between suction attempts. |
| ♦ Evaluate airway patency and heart rate - *repeat procedure if needed* | • Provide a clean field for catheter if reuse is indicated. |
| ♦ Suction remaining water into canister, discard container and change gloves | • Irrigation solution is contaminated and should be treated the same as secretions. |
| ♦ Discard or secure contaminated catheter in a clean area:  
• Discard into an approved receptacle  
• Return used catheter to package and place in clean area for future use | |

| FLEXIBLE CATHETER (WHISTLE STOP, FRENCH) PROCEDURE |

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</tr>
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</table>
| ♦ Remove oxygen source - *if indicated* | • Oxygen should be maintained until ready to suction.  
• A nasal cannula does not need to be removed for oropharyngeal suctioning. |
| ♦ Connect flexible catheter to suction tubing/device | • Keep catheter in package until ready to use.  
• Provide a clean field for catheter if reuse is indicated. |
| ♦ Open patient’s mouth by applying pressure on the chin with your thumb | • Thumb pressure on the chin displaces the jaw. DO NOT use fingers to open the mouth. The crossed-finger technique may result in injury to the rescuer and may puncture gloves.  
*Note: The crossed-finger method is a step found on the National Registry Skills Exam.*  
• DO NOT force teeth open. Use a flexible catheter if unable to open the mouth. |
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<td>✦ Insert flexible catheter along the roof of the mouth without applying suction</td>
<td>• The patient is not being oxygenated at this time and applying suction would deplete any oxygen reserve present.</td>
</tr>
<tr>
<td>✦ Advance catheter gently to depth measured</td>
<td>• Never insert catheter past the base for the tongue. This may stimulate the gag reflex, cause vomiting and bradycardia.</td>
</tr>
</tbody>
</table>
| ✦ Suction while withdrawing moving catheter from side to side around mouth, pharynx and gum line | • Suctioning longer than recommended time will result in hypoxia. Maximum suction time depends on patient’s age and tolerance: ** Maximum suction time of 5-15 seconds:**  
  • Adults maximum 10-15 seconds  
  • Children maximum of 5-10 seconds  
  • Infants - no longer than 5 seconds |
| ✦ Replace oxygen source or ventilate patient at approximate rate of: | • The range for pediatric patients varies due to a wide age range. |
|  • Adult - 10-12/minute  
  • Child - 12-20/minute  
  • Infant - 20-30/minute  
  • Neonate - 30-60/minute |  

| ✦ Evaluate airway patency and heart rate - repeat procedure if needed | • Observe patient for hypoxemia: dysrhythmias, cyanosis, anxiety, bronchospasms and changes in mental status.  
  • If vagal stimulation occurs, the patient may experience bradycardia, especially pediatric patients.  
  • Allow patient to rest and regain adequate oxygen levels between suction attempts. |
| ✦ Discard or secure in a clean area contaminated catheter: |  
|  • Discard into an approved receptacle:  
  - Coil contaminated catheter around sterile (dominant) hand and pull glove over catheter  
  - Pull glove from other hand over packaged catheter and discard in approved waste receptacle  
  OR  
  - Return used catheter to package and place in clean area for future use |  

| ✦ Suction remaining water into canister, discard container and change gloves | • Rinse solution is contaminated and should be treated the same as secretions. |

**BULB SYRINGE PROCEDURE**

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| ✦ Prime bulb (squeeze out air) and hold in depressed position                | • The bulb syringe acts as both the *pump* and collection container for manual suction.  
  • To prime bulb syringe depress (squeeze) it to remove all air and hold.   |
| ✦ Open patient’s mouth by applying pressure on the chin with your thumb     | • Thumb pressure on the chin displaces the jaw. DO NOT use fingers to open the mouth. The crossed-finger technique may result in injury to the rescuer and may puncture gloves.  
  *Note: The crossed-finger method is a step found on the National Registry Skills Exam.* |
| ✦ Insert tip of primed syringe into mouth and advance gently to back of mouth | • DO NOT insert tip past the base of the tongue. This may stimulate the gag reflex, cause vomiting and bradycardia. |
| ✦ Slowly release pressure on bulb to draw secretions into syringe           | • The bulb syringe acts as both the *pump* and collection container for manual suction. |
**Skill Component** | **Key Concepts**
--- | ---
♦ Remove syringe from mouth |  
♦ Empty secretions into designated container by squeezing bulb several times | • All secretions are to be treated as contaminated waste.
♦ Replace oxygen source or ventilate patient at approximate rate of:  
  • Adult - 10-12/minute  
  • Child - 12-20/minute  
  • Infant - 20-30/minute  
  • Neonate - 30-60/minute | • The rate for ventilating pediatric patients varies due to a large age range.
♦ Evaluate airway patency and heart rate - **repeat procedure if needed** | • Observe patient for hypoxemia: dysrhythmias, cyanosis, anxiety, bronchospasms, and changes in mental status.  
  • If vagal stimulation occurs, the patient may experience bradycardia, especially pediatric patients.  
  • Allow patient to rest and regain adequate oxygen levels between suction attempts.
♦ Rinse bulb syringe with irrigation solution | • Rinsing bulb syringe removes secretions for future use.
♦ Return used bulb syringe to package/container and place in clean area for future use |  
♦ Discard irrigation solution into designated container and change gloves | • Irrigation solution is contaminated and should be treated the same as secretions.

**REASSESSMENT**  
(Ongoing Assessment)

**Skill Component** | **Key Concepts**
--- | ---
§ Assess airway, breathing and heart rate:  
  • Continuously or at least every 5 minutes  
  • Changes in airway sounds  
  • Changes in respiratory status | • If vagal stimulation occurs, the patient may experience bradycardia, especially pediatric patients.
♦ Evaluate response to treatment | • Patients must be re-evaluated at least every 5 minutes if any treatment was initiated or medication administered.
♦ Evaluate results of reassessment and note any changes in patient’s condition and vital signs **Manage patient condition as indicated.** | • Comparing results assists in recognizing if the patient is improving, responding to treatment or condition is deteriorating.

**PATIENT REPORT AND DOCUMENTATION**

**Skill Component** | **Key Concepts**
--- | ---
§ Verbalize/Document  
  • Indication for suctioning  
  • Oxygen liter flow  
  • Patient’s tolerance of procedure  
  • Problems encountered  
  • Type of secretions:  
    - color  
    - consistency  
    - quantity  
    - odor  
  • Respiratory assessment and heart rate:  
    - respiratory rate  
    - effort/quality  
    - tidal volume  
    - lung sounds | • Documentation must be on either the Los Angeles County EMS Report form or departmental Patient Care Record form.
AIRWAY EMERGENCY / AIRWAY MANAGEMENT
SUCTIONING - OROPHARYNGEAL

Supplemental Information

**INDICATIONS:** To clear the airway in patients who are unable to maintain a patent airway due to oral secretions.

- Excessive oral secretions (noisy respirations)
- Respiratory distress due to oral secretions/vomitus
- Prevent aspiration of secretions/vomitus

**COMPLICATIONS:**

- Hypoxia
- Bronchospasm
- Cardiac dysrhythmias
- Hypotension
- Oral trauma/broken teeth
- Infection/sepsis
- Vomiting
- Aspiration
- Oral trauma/broken teeth
- Infection/sepsis
- Vomiting
- Aspiration

**CONTRAINDICATION:**

- Infants less than 1 year of age – use bulb syringe

**NOTES:**

- A clean technique must be maintained throughout suctioning procedure to prevent infection.
- Use rigid catheters with caution in conscious or semiconscious patients. Put the tip of the catheter in only as far as can be visualized to prevent activating the gag reflex.
- Rigid catheters are best for suctioning large amount of secretions or large particles.
- Keep suction settings between 80-120 mmHg and adjust lower for pediatric and elderly patients (50-100mmHg). Excessive negative pressures may cause significant hypoxia and damage to tracheal mucosa. Too little suction will be ineffective.
- Hand-powered suction devices may be used as long as they have an adaptor for a flexible catheter.
- Pre-oxygenation may be required depending on patient’s condition. This offsets volume and oxygen loss during suctioning.
- Suctioning longer than recommended time will result in hypoxia. Maximum suction time depends on patient’s age and tolerance:
  - Adults maximum 10-15 seconds
  - Children maximum of 5-10 seconds
  - Infants - no longer than 5 seconds
- If vagal stimulation occurs, the patient may experience bradycardia, especially pediatric patients.