# PROCEDURE FOR USING A NASAL CANNULA

A nasal cannula is used to deliver a low to moderate concentration of oxygen. It can be used as long as nasal passages are open. A deviated septum, swelling of the nasal passages, mucus, or polyps may interfere with adequate oxygen intake, and a nasal cannula should not be used to deliver oxygen in those instances.

## PROCEDURE

1. Wash hands.

2. Assemble equipment:
   - O₂ source
   - Cannula and tubing
   - Humidity source if needed
   - Adaptor to connect tubing to Oxygen source

3. Explain procedure to student.

4. Attach cannula tubing to O₂ source securely.

5. Set liter flow on the flow-meter as prescribed by the licensed health care provider. Turn on the O₂ source.

6. Check cannula prongs to make sure O₂ is being delivered.

7. Insert prongs into the student’s nose. Make sure both prongs are in the nostrils.

8. Wash hands.

9. Document procedure in Healthmaster and EasyTrac, if applicable.

## POINTS TO REMEMBER

- Follow Universal Precautions.

- Make sure a proper adaptor is available for the O₂ source. Check that the tank has enough oxygen. Attach humidifier if ordered. Check that all pieces are secured tightly to prevent leaks.

- A highly visible information card stating oxygen liter flow must be attached to the regulator. A too high oxygen flow may irritate the nose and may induce coughing or vomiting. Never deliver more than 5 liters of oxygen through a nasal cannula. Report any changes in student’s pattern to parent/guardian and school nurse.

- Gently insert prongs into the student’s nostrils. Loop the tubing over each ear then under the chin; secure by sliding the clasp up under the chin. Make sure that it is comfortable for the student. If the student is not comfortable, the cannula tubing may be secured behind the head rather than under the chin.
PROCEDURE FOR USING AN OXYGEN MASK

An oxygen mask can deliver higher or lower concentrations of oxygen than the nasal cannula and is useful when nasal passages are blocked.

**PROCEDURE**

1. Wash hands.

2. Assemble equipment:
   - Oxygen source and back-up
   - Appropriate size mask and tubing
   - Humidity source, if needed

3. Explain procedure at the student’s level of understanding.

4. Set oxygen flow on flow meter to the rate prescribed by the licensed health care provider. **Do not change setting without first contacting the licensed health care provider.** Turn on the oxygen source.

5. Check that oxygen flow is coming out of the mask.

6. Place the mask over the student’s nose and mouth.

7. Wash hands.

8. Document procedure and problems in Healthmaster and EasyTrac, if applicable.

**POINTS TO REMEMBER**

- Follow Universal Precautions.

- By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.

- Excessive flow rates may cause irritation to the skin. A highly visible information card stating oxygen liter flow must be attached to the regulator. Oxygen liter flow must be ordered at a set liter flow rate (example: 6 liters per minute).

- Hold mask up to your cheek to feel gas flow. If no flow is felt, check oxygen supply, connections, flow rate, and tubing for obstruction.

- Tighten the elastic band over the student’s head and pinch mask over the bridge of the nose for a good fit. Make sure that the student is comfortable with the mask and that the mask does not touch the eyes.

- Report any changes in student’s usual pattern to school nurse and parent/guardian.
**PROCEDURE FOR USING A TRACHEOSTOMY COLLAR**

The tracheostomy collar is one means of delivering oxygen or humidified air to the tracheostomy. The tracheostomy collar may be used with a humidifying device and tubing to prevent dry and/or thick secretions from plugging the tracheostomy and to administer oxygen to the student.

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>POINTS TO REMEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wash hands.</td>
<td>Follow Universal Precautions.</td>
</tr>
<tr>
<td>2. Assemble equipment:</td>
<td>By encouraging the student to assist in the procedure, the caregiver helps the student achieve maximum self-care skills.</td>
</tr>
<tr>
<td>• Nebulizer/humidifier</td>
<td>There are several types of humidification devices. Check student-specific guidelines and assemble according to specific instructions.</td>
</tr>
<tr>
<td>• Tubing</td>
<td>Some students may require only compressed air.</td>
</tr>
<tr>
<td>• Tracheostomy collar</td>
<td>A highly-visible information card stating oxygen liter flow must be attached to the regulator. Oxygen liter flow will be ordered as a set liter flow rate (example: 3 liters per minute) based on the student’s needs.</td>
</tr>
<tr>
<td>• Oxygen tubing</td>
<td>Some students may use cool mist. With prolonged humidification, moisture collection in the tubing can block the flow of air/oxygen and may require periodic removal.</td>
</tr>
<tr>
<td>• Graduated adaptor</td>
<td></td>
</tr>
<tr>
<td>• Oxygen source, if ordered</td>
<td></td>
</tr>
<tr>
<td>3. Explain procedure at the student’s level of understanding.</td>
<td></td>
</tr>
<tr>
<td>4. Assemble humidification device.</td>
<td></td>
</tr>
<tr>
<td>5. Dial liters of oxygen as ordered.</td>
<td></td>
</tr>
<tr>
<td>6. Connect to compressed air/oxygen source.</td>
<td></td>
</tr>
<tr>
<td>Turn on oxygen source. <strong>Do not change setting without first contacting the licensed health care provider.</strong></td>
<td></td>
</tr>
<tr>
<td>7. Connect to heater and/or humidifier if required.</td>
<td></td>
</tr>
<tr>
<td>8. Place one end of wide-bore tubing on the collar and the other on the humidifier or heater.</td>
<td></td>
</tr>
</tbody>
</table>
**PROCEDURE**

9. With compressed air/oxygen source on, look at mist at the end of tubing. You should see a fine mist when held up to the light.

10. Place collar on student’s neck over tracheostomy tube in the midline.

11. Wash hands.

12. Document procedure in Healthmaster and EasyTrac, if applicable.

**POINTS TO REMEMBER**

If mist is not seen, check that all connections are on securely and compressed air/oxygen is flowing. Turn on higher flow, then return to flow ordered to see if mist is present.

Adjust tracheostomy collar so that it is snug but not uncomfortable for student.

Report any changes in student’s usual pattern to school nurse and parent/guardian.
STUDENTS REQUIRING OXYGEN  
POSSIBLE PROBLEMS THAT REQUIRE IMMEDIATE ATTENTION

OBSERVATION

1. The student shows any of the following signs of respiratory distress:
   • Shortness of breath or rapid breathing rate
   • Agitation
   • Bluenss or pallor of the lips, nails, or ear lobes
   • Retractions at the neck or chest
   • Confusion, dizziness, or headache
   • Rapid or pounding pulse

2. The equipment and oxygen flow are adequate, but the student continues to show signs of respiratory distress, becomes unconscious, or has a respiratory arrest.

3. Administer blow-by oxygen as ordered by LHCP.

4. Document in Healthmaster and EasyTrac as applicable.

REASON/ACTION

Stay calm and reassure student.

Check student:
   • Position student to open airway. Make sure mouth, nose, or tracheostomy tube are not obstructed by food or mucus
   • Check tracheostomy tube placement
   • Make sure collar is not out of position or obstructing tracheostomy tube

Check equipment (check oxygen flow - if flow is weak or inadequate):
   • Tank is not empty or defective. If empty or defective, replace with back-up tank
   • Valve, regulator, and flow meters are on proper settings
   • Tubing is not blocked or kinked
   • Check all connections from oxygen source to student
   • Tubing, mask, cannula, and collar are not blocked
   • Humidifier bottle is properly attached
   • Tubing is not obstructed by water collection from condensed mist
   • Empty water from tubing frequently when using mist

Call 911. Notify school/nurse and parent/guardian. Begin CPR, if needed.

Blow-by oxygen is a passive delivery of high flow oxygen given to the student by removing the mask/nasal cannula/trach collar from the oxygen tubing and then placing only the oxygen tubing up to the nose/mouth or stoma. The stoma is the usual site for students with tracheostomies.
### POSSIBLE COMPLICATIONS

<table>
<thead>
<tr>
<th>OBSERVATION</th>
<th>REASON/ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Redness, dryness, or bleeding of the skin.</td>
<td>May be due to irritation from the device or from insufficient humidity. Notify the parent/guardian to discuss health problem with their licensed health care provider. Never use powders or petroleum products on the student’s face.</td>
</tr>
</tbody>
</table>