



OXYGEN: PER MASK OR CANNULA

I. GENERAL INFORMATION

- A. Purpose: To assist respiration by relieving hypoxemia (reduced oxygen tension in arterial blood) and hypoxia (reduced oxygen availability to tissue cells).
- B. Oxygen is a colorless, odorless, tasteless, gaseous element that is a component of earth's atmosphere and is essential for plant and animal respiration.
- B. Oxygen for human consumption is stored in the following ways:
 - 1. Portable or non-portable tanks
 - 2. *Liquid oxygen (easiest to transport but can cause frostbite with contact to skin.
 - 3. Oxygen concentrator (takes room air and purifies it to oxygen).
- C. A mask is usually a clear plastic device that fits snugly over the student's nose, mouth, or tracheostomy used for the delivery of oxygen and to administer aerosol medication.
- D. A cannula is a clear plastic tube with 2 protruding outlets which fit into the student's nose, held in place by an elastic band around the head, used to deliver oxygen.
- E. Oxygen tank must be adequately secured to prevent damage to the valve (IF VALVE DAMAGE OCCURS THE TANK MAY ACT LIKE A "MISSILE"); Tanks with the regulator attached will only leak if the regulator is knocked off. REFER TO SPECIFIC MANUFACTURER'S INSTRUCTIONS THAT MUST BE PROVIDED WITH THE OXYGEN DEVICE THAT IS TO BE USED. It is recommended that oxygen tanks be secured to a stationary object, with a chain around the tank, in a corner area away from potentially movable objects. STORE OXYGEN AWAY FROM DIRECT SUNLIGHT. NO OPEN FLAMES).
- F. While in use, the E-tank should remain upright and secured in its carrier.
- G. ABSOLUTELY NO PETROLEUM OR OILY SUBSTANCES ARE TO BE APPLIED TO VALVES/OUTLETS ON THE OXYGEN-CONTAINING DEVICE; OXYGEN WITH OIL IS EXTREMELY FLAMMABLE. Oxygen itself is non-flammable, but an oxygen-enriched atmosphere will increase the rate of combustion of a flammable material and will lower the kindling temperature.
- H. Post "CAUTION – OXYGEN IN USE" and "NO SMOKING, NO OPEN FLAMES" in the areas of the school used by the student (front and back doors of the classroom), and on the school bus near the doors.

- I. A fire extinguisher must be close to use readily. If 1000 or more cubic feet of oxygen is stored, then fire extinguishers are required every 75 feet (in the area of where the oxygen is stored). Verify local regulations with fire department.
- J. All electrical equipment in use near the student must be grounded.
- K. The maintenance of an adequately functioning oxygen source and equipment are the responsibility of the parent/careprovider under the direction of the prescribing physician.
- L. Parent/care-provider will provide the oxygen and necessary equipment for performing procedures at school.
- M. A QUALIFIED PERSON, TRAINED IN OXYGEN THERAPY, MUST BE ON SITE WHENEVER A STUDENT REQUIRING OXYGEN IS AT SCHOOL. THIS INCLUDES TRANSPORTATION AND FIELD TRIPS.

II. PERSONNEL

- A. School Nurse
- B. Designated school personnel under direct or indirect supervision by the school nurse.

*This procedure specifically addresses E-tanks. If other devices are used, refer to manufacture's manual or modification.



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Student's Name: _____ DOB: _____

Equipment And Supplies *(Responsibility of parent/care provider)	1. *Oxygen source and back up E-tank 2. *Reduction gauge 3. *Flow-meter/gauge 4. *Tubing (may need extensions)	5. *Mask or cannula 6. *Humidifier (optional) 7. *Carrier for E-tank 8. *Wrench <i>*For disaster preparedness, consider a 72-hour supply.</i>
PROCEDURE		
ESSENTIAL STEPS	KEY POINTS & PRECAUTIONS	
1. Check equipment: <ol style="list-style-type: none"> Check gauge to be sure that oxygen supply is sufficient for the day. Check flow-meter/gauge for liter flow, per physician's order. Check tubing for kinks. Check that oxygen is flowing through the cannula or mask by feeling direct flow on hand. Check that mask or cannula is secured to airway. 2. Observe student frequently for proper skin color and ease of respirations. Should signs of respiratory distress occur: <ul style="list-style-type: none"> -check equipment (as stated above) -check for obstructed airways IF AIRWAY OBSTRUCTION: MAY REQUIRE SUCTIONING OR HEIMLICH MANEUVER TO CLEAR AIRWAY – CPR MAY BE NECESSARY <ol style="list-style-type: none"> If CPR indicated, call Paramedics. Notify School Nurse. 3. When gauge indicates E-tank is near empty, change tanks. 4. Record E-tank changes, equipment checks and any incidents on SPHCS log.	<p>Allow enough oxygen for unforeseen delays when transporting student.</p> <p>Each time student is moved, recheck equipment.</p> <p>Respiratory distress is demonstrated by increased respirations, bluish gray color around lips, eyes, and nail beds, restlessness, and generalized pallor.</p> <p>Personnel are to maintain current CPR certification.</p> <p>Refer to specific manufacturer's instructions or STEPS TO CHANGE E-TANKS. Approximate time for E-tank change can be estimated by liter-flow and amount of liters in tank.</p> <p>Refer to example to SPHCS log in "Part Four – Forms".</p>	