

**Plano Independent School District
Health Service
Oxygen in Use Administrative Guideline**

Purpose

This Oxygen in Use Guideline is provided to schools and school personnel in planning for the safety of students when oxygen is stored, in use in or around the school building, or on a school bus. The use of oxygen in any of the above listed locations requires considerable planning to ensure safety. School staff, to include qualified transportation and related-services personnel, must work together to make decisions to ensure both safety and compliance with the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973 (Section 504), the Americans With Disabilities Act (ADA), and State law.

This Guideline shall be distributed to and reviewed by each School Health Services staff member and any other PISD staff member who has responsibilities relating to the care of transportation of students using oxygen. A copy of this Guideline shall be posted on the nurse website.

Definitions

- **Cranking the tank:** opening the valve just enough to let a small amount of oxygen out, which will clear dirt out of the valve.
- **Crush gasket:** a nylon washer that comes with each new tank of oxygen.
- **Flow meter:** measures the flow of oxygen coming out of the tank in liters per minute (LPM)
- **Liquid Oxygen** – is made by super-cooling oxygen gas, changing it to a liquid form. This form takes up less room and can be stored in a special container.
- **Nasal Cannula:** tubing that is connected to the oxygen tank and brings the flow of oxygen into nose.
- **Oxygen Concentrator** – produces oxygen by concentrating the oxygen that is already in the air and removing other gasses. The concentrator is powered by electricity.
- **Oxygen Cylinder** - Oxygen is compressed into a metal cylinder (also called a tank) under high pressure. Oxygen may be stored in either large or small cylinders.
- **Pressure gauge:** measure how much oxygen is in the tank
- **Regulator:** a device that contains both the flow meter and the pressure gauge. It is attached to the tank, and lets the oxygen out at a safe pressure.
- **Sealing washer:** a metal or metal-and-rubber washer that is used to provide a tight seal between the oxygen tank and the regulator. Helps prevent oxygen from leaking.
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Oxygen Program Coordinator

Coordinator for District Health

Responsibilities

- Coordinate with Plano ISD building administrators and or building manager and school nurses in the selection of employees for training.
- Coordinate appropriate device maintenance.
- Oversee the maintenance of specifications/technical information.

- Assure quality improvement by revising this guideline as required through the monitoring of training and the effectiveness of use.
- Communicates with Oxygen supply company and parent regarding specific guidelines for use of equipment.
- Communicate with medical officer on issues related to Oxygen.

Environment/Settings

There are no restrictions as to where oxygen may be used in the school setting.

Applicable documents

- Guideline
- Training provided by medical equipment company.
- Action Plan/Individual Health Care Plan

Medical Control

The medical advisor of the oxygen program is the Plano ISD's medical officer. The medical officer will direct the following:

- Medical direction for the use of oxygen
- Review and approves guidelines for oxygen
- Evaluation as needed

Staff Training and Preparation

Oxygen can be performed by the school nurse, teacher aide, or other staff person as assigned by the principal with general training in oxygen use. General training should cover the student's specific health care needs, how to use oxygen, potential problems, how to obtain assistance should problems occur, and how to implement the established emergency plan.

Individualized Health Care Plan/Action Plan

The student's Individualized Health Care Plan and/or Action Plan must be adapted to individual needs. The following are possible problems or emergencies that might require a student to need for Oxygen and should receive particular attention:

- Student's baseline status, including color, respiratory rate, pulse, blood pressure and assessment of changes.
- Student's underlying condition and possible problems associated with the condition or treatment changes.
- Determination of oxygen saturation values that should be immediately reported to school nurse, family, and/or health care provider and treatment begun if order.
- Know signs and symptoms that require administration of oxygen, such as falling oxygen saturation, respiratory distress, skin color changes, increased respiratory rate, coughing, retraction or other signs as indicated on IHP.
- Student's self-care skills and knowledge of early signs of respiratory distress.
- Standard precautions.

Procedural Guideline

General Information

Students using oxygen may use one of several oxygen supplying units available, including high pressure gas cylinders, liquid oxygen or oxygen concentrators.

School Health Services

After establishing with the parent that the student will require the administration of oxygen at school, the school nurse shall initiate the following:

1. Obtain a physician prescription for oxygen use in the school.
2. All equipment and supplies will be provided by the parent and must accompany the student each day.
3. Determine the mode of oxygen delivery to the school.
4. Develop student specific care plan including emergency response.
5. Emergency plans will identify staff members who are trained to respond in the event the student experiences respiratory distress and/or the equipment malfunctions.
6. Training will be provided for identified staff members in the use of oxygen therapy and emergency response.
7. Notification of oxygen use and storage will be made to the local fire department.
8. Notification, should an emergency occur, to local fire department, School Health Services, District Safety and Security Services, and Transportation as appropriate.
9. Activities where fire risks would be generally increased by the presence of excess oxygen will be highly controlled or not undertaken when oxygen is being supplied from a cylinder.

Transportation

Prior arrangements for the transportation of oxygen-dependent students must be made through School Health Services and Transportation. An oxygen-dependent student, whether ambulatory or in a wheel chair, may be transported on the school bus, only when accompanied by appropriately trained district personnel or a private duty nurse. Only two oxygen containers are allowed on the school bus during transportation. Appropriately trained personnel will determine if oxygen container is adequately full upon receiving the student, as directed by the school nurse. The oxygen container shall be secured either to the bus seat, sidewall or wheelchair.

Safety

Oxygen can be handled and stored with little or no danger, if proper safety precautions are followed. Generally, oxygen is nonflammable, but can support combustion if a substantial leak occurs near a source of ignition. An ABC fire extinguisher must be located on the bus, near the classroom, health office or where oxygen is stored. Smoking is strictly prohibited in the proximity of oxygen.

The following are specific safety guidelines for the different types of oxygen supplies.

1. All oxygen supplying equipment
 - a. Do not use within five feet of electrical appliances such as stoves or heaters.
 - b. Keep away from heat or open flame.

- c. Do not use near combustible materials such as oils, grease, aerosol sprays, lotions, solvents. These substances, when combined with oxygen, can greatly increase the potential for fire hazard and personal injury.
 - d. The oxygen container must be safely positioned during the school day. Students and staff should be aware of tripping hazards created when the tube extends from the unit to the user.
 - e. Check equipment daily and document findings.
 - f. Plan for delivery and removal of oxygen to and from school by parents or vendor.
 - g. Have back up plans for oxygen in case of equipment failure.
2. High Pressure Cylinders (approximately 22 liters)
- a. Cylinders must be secured (i.e., portable cart to table, or to the wheelchair) to prevent tipping or falling, which could result in the separation of the valve assembly from the cylinder and possibly becoming projectile.
 - b. Care must be taken to ensure that the cylinder valve is protected from being struck or damaged by other objects.
 - c. Valves should be kept free of oil, grease or other readily combustible materials.
 - d. Hands must be clean (i.e. hand lotion) when replacing cylinders.
3. Liquid Oxygen
- a. In case of spillage, keep liquid away from the skin, eyes and clothing. Liquid oxygen can freeze the skin.
 - b. Never touch the frosted parts of the portable oxygen unit.
4. Oxygen Concentrators
- a. Where concentrators are used, the school must be supplied with an alternative source of oxygen, such as a spare oxygen cylinder.
 - b. Filters must be in place and totally dry before operating the unit.
 - c. Ventilation parts must be unobstructed by any items such as blankets or foam which may impede ventilation.
5. Oxygen Cylinder Storage
- a. The number of oxygen cylinders to be stored at the school will be determined by the school nurse and student's physician. The parent or vendor is responsible for supplying and transporting additional oxygen cylinders to be stored at school.
 - b. Cylinders must be stored in a well-ventilated, protected and dry area such as the clinic. Lockers and cabinets are not proper storage areas since they are not ventilated. Cylinders must be stored in an upright position and securely fastened to the wall or in a storage rack. Cylinders must not be stored near combustible materials or any other ignition source likely to cause or accelerate fire.
6. Signs and Labeling
- a. Post appropriate signs in areas where oxygen is in use and stored, including classroom, clinic and bus.

- b. Signs may be obtained through oxygen vendors.
 - c. Labels provided by the manufactures must be affixed to the oxygen containers.
7. Specific Instructions:
- a. For specific instruction on using the student’s oxygen tank, contact the medical equipment company for training and problems.
 - b. See attached information sheet.

Medical Officer Signature

_____ Date: _____
Physician’s Signature/Plano ISD Medical Officer