



## Resource Guide

Subject:	Oxygen Tank Monitoring and Maintenance
Facility Site Review Source:	Department of Health Care Services (DHCS) All Plan Letter 20-006, Site Reviews: Facility Site Review and Medical Record Review or any superseding APL
Relevant Law/Standard:	
Agency/Organization Source:	Food and Drug Administration (FDA)
Agency/Organization URL	<a href="https://www.fda.gov/regulatory-information/search-fda-guidance-documents/review-guidelines-oxygen-generators-and-oxygen-equipment-emergency-use">https://www.fda.gov/regulatory-information/search-fda-guidance-documents/review-guidelines-oxygen-generators-and-oxygen-equipment-emergency-use</a>

**Background:**

Without the ability to adequately maintain the patient’s airway, all other interventions are futile. Minimum airway control equipment with various sizes of airway devices appropriate to patient population within the practice and examples of oxygen delivery systems include:

- Wall oxygen delivery system
- Portable oxygen tank
- Portable oxygen concentrator (POC)

All oxygen delivery systems must be able to be regulated up to 6 liters of oxygen per minute, maintained for a minimum of 15 minutes. This flow rate establishes a minimum total oxygen delivery capacity of 90 liters for these devices:

- Nasal cannula or mask
- Bulb syringe
- Ambu bag as appropriate to patient population served. Mask should be replaced when they no longer make a solid seal.
- Portable oxygen tanks are maintained at least ¾ full. There is a method/system in place for oxygen tank replacement. If oxygen tanks are less than ¾ full at time of site visit, site has a back-up method for supplying oxygen if needed and a scheduled plan for tank replacement.
- Oxygen tubing does not need be connected to oxygen tank, but must be kept in close proximity to tank.

Note: Oropharyngeal airways are no longer required.

**Purpose:**

Ensure the appropriate monitoring and maintenance of oxygen delivery system.

**Tips:**

1. Locate oxygen supply in an easily accessible location.

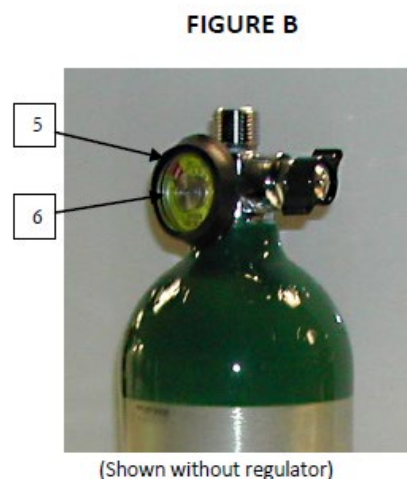
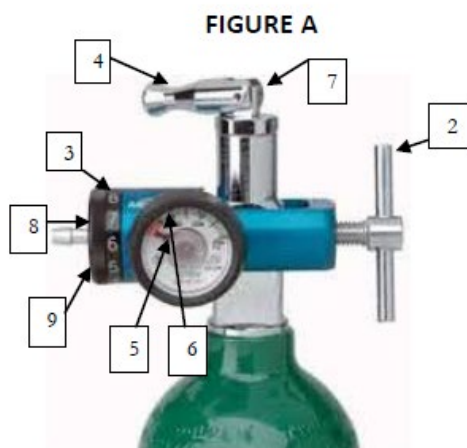
2. **Oxygen cylinders should never be stored with pressure in the regulator or with the flowmeter set at any other value than "0"**. If stored with pressure in the regulator, the integrity of the system may be compromised, and the tank could leak. A flowmeter storage value of other than "0" will also cause leakage.
3. Store oxygen tanks that are not in active use in upright stands or chained together to prevent falling and explosive discharge of contents. **Store oxygen away from flammable items.**
4. Cylinders should be visually inspected and checked for obvious wear and tear or leakage at least once monthly.
5. Connections to oxygen delivery devices should also be checked monthly.
6. Always turn your oxygen cylinder on, check for adequate volume and properly prepare your delivery device before delivering oxygen to the patient!!

### Key Staff Training Opportunity:

**Health care personnel at the site must demonstrate that they can turn on the oxygen tank.**

### Procedure:

1. Identify which cylinder you have (Figure A or B below) and determine which directions you need to follow. Direction/step numbers pertain to numbers on the figures below.
2. Check to be certain regulator is hand-tight on neck of cylinder (Figure A only).
3. Adjust flowmeter dial to "0". (If equipped with flowmeter dial.)
4. Open oxygen cylinder by turning toggle or key to the left (Figure A only). Figure B cylinder does not need to be opened.
5. Note the position of the indicator on the regulator dial. Just above or in the red area on the dial indicates the cylinder should be refilled. 500 psi or greater indicates sufficient oxygen for at least one patient use.
6. Record psi indication with date on a maintenance checklist (if available).
7. Close oxygen cylinder by turning toggle or key to the right (Figure A only).
8. Bleed pressure out of the regulator by turning the flowmeter dial to its highest possible setting (Figure A only).
9. Once the sound of pressure releasing is no longer heard, turn the flowmeter dial to "0" (Figure A only).





## Checklist for Medical Assistants

### OBJECTIVE


The trainee will successfully demonstrate without error the performance aspects of oxygen delivery system, reading oxygen level, back-up system, and tank replacement procedure

Note: Accordance with DHCS Facility Site Review, Access and Safety, Section I, Element D, Airway Management

DATE MM/DD/YYYY	TRAINEE NAME	TRAINER NAME
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### Check Satisfactory or Unsatisfactory for each one:

Each step/action must be numbered sequentially throughout the document and be followed by outcome.

1	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	How to attach and change regulator on a portable unit
2	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	How to turn on/off a regulator
3	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	How to read contents gauge on a regulator
4	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	On our clinic's oxygen tank, which way do you turn the flow regulator knob? 
5	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	How to read and adjust liter flow meter on regulator
6	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	When and how to use back-up system
7	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	When to call for replacement of back-up unit and who to notify in clinic to ensure replacement is ordered
8	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	After turning off tank, do you have to bleed oxygen from the system before putting the oxygen back in storage area?
9	<input type="radio"/> Satisfactory <input type="radio"/> Unsatisfactory	True or False: Always turn your oxygen cylinder on, check for adequate volume and properly prepare your delivery device before delivering oxygen to the patient

## Appendix A:

Laminate and affix the following to your office's oxygen tank: **CUSTOMIZE TO YOUR O2 TANK SET-UP**

### Oxygen tank operation

#### To turn on:

1. Attach oxygen delivery system to tank.
2. Turn key on top of tank in counter clockwise direction to open the flow of oxygen.
3. Read low flow regulator knob; turn in the direction the arrow indicates to increase or open. Many regulators are opposite of sink faucets, and open clockwise instead of counter-clockwise.
4. Attach oxygen delivery system to patient.

#### To turn off:

1. Remove oxygen delivery system from patient.
2. Turn key on top of tank in clockwise direction to shut off flow of oxygen.
3. Turn the "Low Flow" regulator knob to "open" position to bleed oxygen from the system.
4. After bleeding, gently close the "Low Flow" regulator knob.

#### Safety precautions for oxygen use:

- (1) Never use combustibles in the presence of oxygen, including petroleum products, such as Vaseline.
- (2) Do not store oxygen in temperatures over 120 degrees F.
- (3) Never adjust the regulator with your body directly over the tank.
- (4) Connect the tubing to the tank and adjust the regulator before placing the delivery system on the patient's face.
- (5) Do not deliver high concentrations of oxygen to patients with COPD (Chronic Obstructive Pulmonary Disease), as it may reduce their hypoxic drive, which is their only remaining stimulus to breathe.

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