

Best Practice Guidelines

Cleaning of CPAP and other devices used to administer supplemental oxygen

More people are using oxygen therapy and CPAP which permits them to lead active lives. People with sleep apnea as well as asthma, emphysema, chronic bronchitis, lung cancer, cystic fibrosis and congestive heart failure may use oxygen therapy and CPAP in the home setting. Keeping CPAP and other equipment clean is essential to maintaining health. Moisture is present in CPAP equipment and oxygen masks from water supplies, body humidity, or other body fluids such as saliva. Bacteria can grow and build up in this moisture and ultimately lead to infections, especially in airway passages and lungs. Therefore cleaning and disinfection should be done regularly and diligently.

Daily cleaning will remove dirt and oils. It is also important to wash your hands prior to handling equipment to prevent the transfer of bacteria to clean equipment.

Procedures:

These are general care procedures and recommendations. You should also refer to the information from the equipment supplier to set up a protocol for equipment cleaning and maintenance.

CPAP Equipment

Nasal, full mask or pillows:

-To wash (daily):

- ❖ Use a mild, non-lotion detergent. Do not use soap or strong dish washing detergents and avoid those with perfumes or dyes. Ivory Clear, Palmolive, and Dial Anti-bacteria have been recommended by some companies.
- ❖ Be sure to rinse warm soapy water through the inside of tubing. Rinse with warm water and allow to air dry.
- ❖ Do not wipe down parts with alcohol as this can cause skin irritation and breakdown of plastics.

-To disinfect (weekly):

- ❖ Mix ½ oz (1 tablespoon) of a disinfectant solution such as Control III with 2 quarts water or use one part white vinegar and 3 to 4 parts water in a plastic container. This solution can be reused for up to 14 days unless it becomes visibly dirty.
- ❖ If using Control III solution, soak for 10 minutes; otherwise soak for 30 to 45 minutes.
- ❖ Rinse well with warm water and allow to air dry.
- ❖ Tubing should be hung to dry so it will drain.

- **Drying hints:** Hang tubing away from direct sunlight as this will cause the tubing to become yellow, brittle and crack over a period of time. Do not attach wet tubing to the CPAP unit to blow-dry it as the moisture from the tubing can drain back into the machine. Moisture in the unit can cause sudden pressure increases and short circuits.

CPAP unit:

1. Unplug before cleaning
2. Never immerse in water
3. Using a cloth slightly dampened with water and mild dish detergent, wipe the outside of the unit.
4. Using a cloth dampened with water only, wipe the unit again
5. Use a dry cloth to wipe the unit and let it air dry.
6. Make sure the unit is thoroughly dry before plugging it in.

Humidifier:

-Wash (daily):

- ❖ Empty any remaining water after each use
- ❖ Never immerse the entire CPAP unit in water
- ❖ Wash your hands
- ❖ Immerse only the humidifier in warm, soapy water.
- ❖ Fill the humidifier with the soapy water and shake the humidifier vigorously
- ❖ Rinse with clear water and allow to dry

-Disinfect (weekly):

- ❖ Mix disinfecting solution as above and soak humidifier in the solution for 10 minutes if using Control III or 30 minutes if using a vinegar solution.
- ❖ Remove the humidifier and shake out the excess solution
- ❖ Rinse with distilled water
- ❖ Allow to air dry

CPAP Equipment Cleaning and Disinfecting Schedule:

Equipment	Cleaning frequency	Instructions	Disinfecting frequency
Non-disposable filters	Weekly	Mild soapy water, rinse, air dry	Not required
Disposable filters	Change as needed, 1 to 2 months	Do not wash	Not required
Hose (without humidifier)	Monthly	Mild soapy water, rinse, air dry	Not required
Hose (with humidifier)	Weekly	Mild soapy water, rinse, air dry	Once a week
Mask/nasal pillows	Daily	Mild soapy water, rinse, air dry	Once a week
Headgear	As needed	Hand wash - mild soapy water, rinse, air dry	Not required
Humidifier	Daily	Empty water daily. Mild soapy water, rinse well, air dry	Once a week
CPAP Unit	As needed	Dust with damp cloth, no detergents or sprays	Not required

Home Oxygen Equipment

Oxygen Delivery Devices

There are three types of devices commonly used for the delivery of oxygen.

1. Nasal Cannula - a two-pronged device inserted in the nostril that is connected to tubing carrying oxygen
2. Oxygen Mask – these are used most often when high flow oxygen is required or when a person’s nose is irritated or congested.
3. Transtracheal – requires the insertion of a small flexible catheter in the trachea or windpipe

Cleaning

1. Nasal Cannula: wash nasal prongs with a liquid soap and thoroughly rinse them once or twice a week. Replace them every two weeks. When someone has a cold, these should be replaced as soon as the cold symptoms have passed.
2. Mask: wash daily with warm soapy water and rinse thoroughly. Allow to air dry. Replace mask every month, more often if needed.
3. Transtracheal oxygen: the inner cannula tube should be cleaned two to three times each day, more if needed.
 1. Wash your hands and use gloves when cleaning someone else’s equipment.
 2. Place 1/2 strength peroxide solution in a bowl and sterile salt water in a second bowl.
 3. Remove the inner cannula while holding the neck plate of the trach still.
 4. Place inner cannula in peroxide solution and soak until crusts are softened or removed.
 5. Use a small brush or pipe cleaner to clean the inside, outside and creases of the tube.
 6. Do not use scouring powder or Brillo-type pads.
 7. Look inside the inner cannula to make sure it is clean and clear of mucus.
 8. Rinse tube in saline or sterile salt water.

9. Re-insert it while holding the neck plate of the trach still.
10. Turn the inner cannula until it locks into position.
11. Double check that it is locked in place by pulling forward gently on the inner cannula.
4. Humidifier bottle: wash with soap and water and rinse thoroughly between each refill. Air dry the bottle before filling with sterile or distilled water. Once every three days, soak for 30 minutes in a mixture containing one part white vinegar and 3 parts water. Rinse under cold water, allow to air dry.
5. Suction catheter: suction up a small amount of water to clean after each use. This prevents putting bacteria into the tracheostomy. Clean or change tubing daily.
 1. Wash the suction catheter with soap and water using a bulb syringe to force soapy water and then, rinse water through the catheter.
 2. Rinse catheter in sterile water. Air dry
6. Suction canister: discard contents into toilet at least once daily. Wash with warm soapy water and rinse thoroughly. Allow to air dry.

Nebulizers

- ❖ If disposable, replace every two weeks.
- ❖ After each treatment, disassemble nebulizer. Wash the “T” piece and mouth piece with warm soapy water (may put a small splash of bleach in water also) and rinse under cold water. Allow to air dry.
- ❖ Replace tubing every two weeks. Wipe tubing with a clean, damp cloth if it is soiled. Do not attempt to soak or clean tubing.

Inhalers

- ❖ After each use, wipe the inhaler with a clean, damp cloth. Warm soapy water with a splash of bleach can be used.
- ❖ Replace the cap if it becomes damaged.

General tips:

- Dish soap can be used to make the soapy water mixture.
- Do not dry with towel as towels can leave a fiber residue which can be inhaled. Air dry instead.
- Check equipment for residue build-up such as from lotions or ointments and remove with a clean, damp cloth if needed.