



**RankenJordan.**  
PEDIATRIC BRIDGE HOSPITAL

# Tracheostomy Humidification (Not on Ventilator)

## Why Does My Child Need Humidity?

When your child has a trach tube, they breathe all their air in and out through this artificial tube that bypasses their upper airway. Without some sort of humidification, the air entering the trach tube is not properly warmed prior to reaching the lower airways. This causes the air to dry out the mucus which could cause a plug in the trach tube.

### High Humidity Direct Connect (HHDC)

Care tips for HHDC:

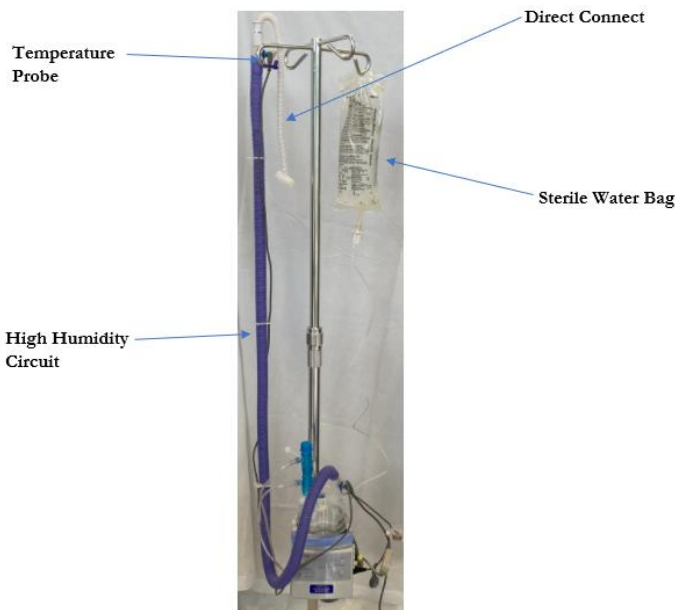
- ✓ Make sure the HHDC is not pulling on the trach. You may need to support the circuit using various clamps or holders.
- ✓ Check the level of sterile water in the humidifier chamber and water bag often to make sure it does not run out of water. Hot, dry air will cause the mucus to thicken causing trach plugging.
- ✓ Check the tubing to make sure that it is warm to the touch (should be between 33-38 deg C) and you can see condensation droplets inside the tubing.
- ✓ Quick changes in temperature (fan blowing on the temp probe) may cause excessive “rainout.” If this happens, drain circuit and reposition fan or adjust temperature in room.



Temperature Probe

“Pigtail Connector”

Blue Topper Cap

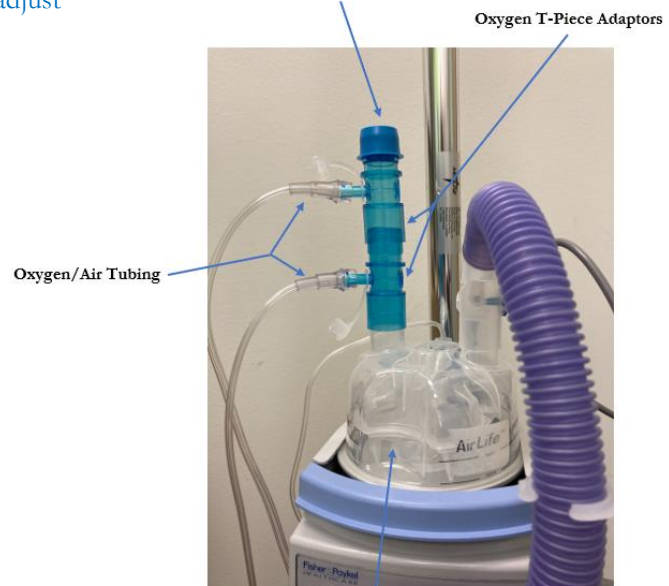


Temperature Probe

Direct Connect

Sterile Water Bag

High Humidity Circuit



Oxygen T-Piece Adaptors

Oxygen/Air Tubing

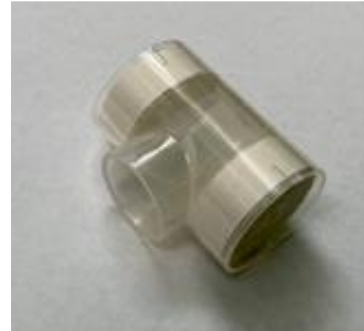
Water Chamber

## Heat Moisture Exchanger (HME)

An HME or Heat Moisture Exchanger is a disposable small filter that fits over the trach opening or inline suction catheter. The HME helps heat and provide humidity to the airway on a short-term basis.

### Care tips for HME:

- ✓ One-use-only product. If HME becomes wet or plugged with secretions, throw away and replace with a new one.
- ✓ Exchange daily
- ✓ HME's are to be used while your child is awake and does not have many secretions. Use HHDC while asleep or when secretions become too thick.



HME

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## Capping

A cap is a small plastic cover that is placed on the end of a trach tube. Capping is a physician's order and is only placed on your child if they can breathe without distress through their nose and mouth. When your child is "capped," humidification is achieved by your child's own body (nose and mouth). Capping is normally done as a trial for decannulation (removal of trach tube) but may also be used if the child only needs to use a breathing machine for sleep at night.

### How do I know if my child's trach can be capped?

The airway needs to be checked by an ENT (Ear, Nose, and Throat) Physician to confirm the airway is clear of obstructions. This may require a bronchoscopy procedure, which is a special camera used to inspect the airway.

After the evaluation, the medical team and respiratory therapist will do a capping trial to make sure that your child is able to breathe appropriately through their nose or mouth.

