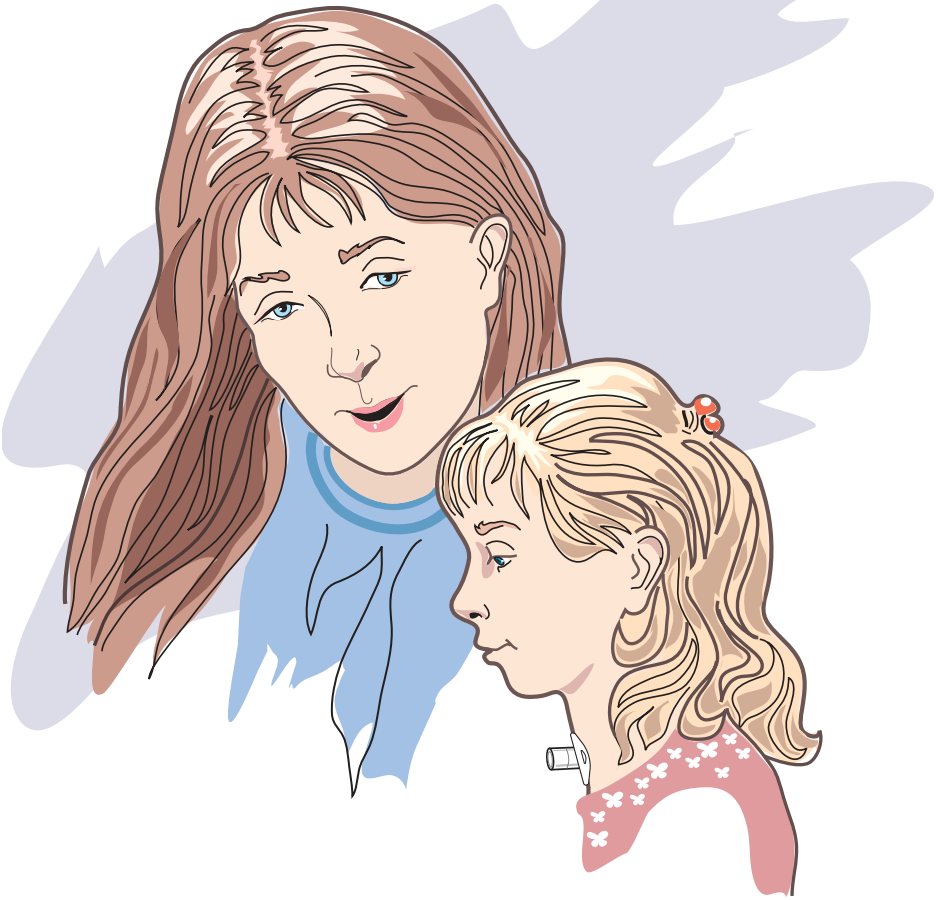
Kimberly-Clark*

Ballard TRACH CARE*

Solutions For The Home Care Patient



YOUR GUIDE TO PROPER CARE

Rx Only

TRACH CARE* HOME CARE GUIDE

Table of Contents

TRACH CARE* HOME CARE GUIDE

Forward

If your child has a tracheostomy, you may have questions and concerns about the suction procedure at home or away from home.

This care guide is intended to serve as a reference for the use of the TRACH CARE* closed suction system. It is not intended as reference for other manufacturer's products. The TRACH CARE* closed suction system can be used whether your child is on a ventilator or not.

This care guide is provided as a supplemental resource only, and is not intended to be a complete textbook on the subject. You should always follow the specific instructions given to you by your doctor, nurse, respiratory therapist, or other health care provider.

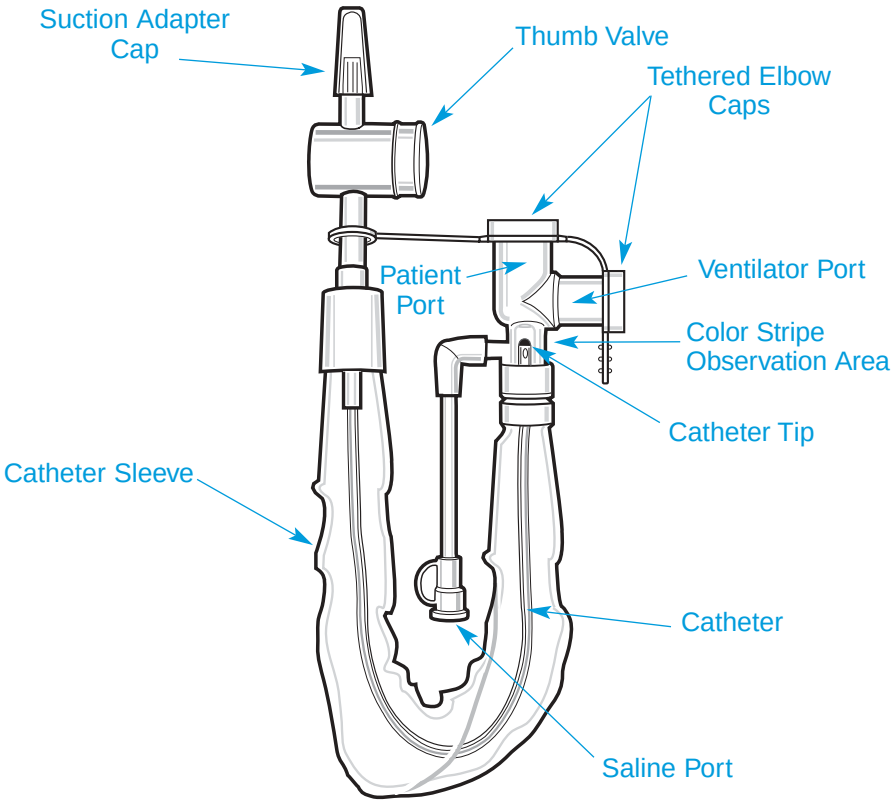
Introduction

TRACH CARE* is a closed suction system. The catheter is enclosed in a plastic sleeve. It attaches between the ventilator circuit and the tracheostomy tube.

Suctioning can be performed quickly and safely if all instructions are followed.

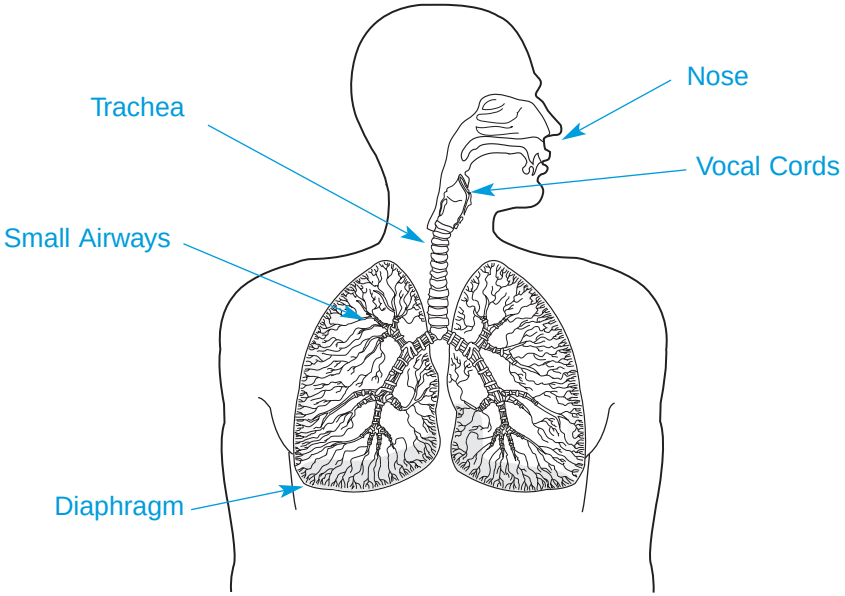
Parts Identification

Parts of the TRACH CARE* closed suction system are shown below:

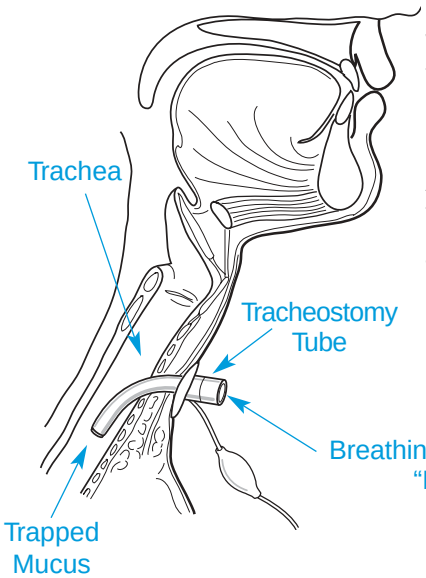


TRACH CARE* HOME CARE GUIDE

Anatomy and Physiology



When we breathe in, the diaphragm goes down and the ribs go out and air flows into the lungs. When we breathe through the nose, the air is filtered, warmed and humidified. The nose filters out dirt, dust, pollen and other things which could be harmful if they get into the smaller airways. Various parts of the respiratory system produce mucus (secretions) which coats the inside of the airways and traps the dust, dirt, and germs.



When a tracheotomy is performed, a tracheostomy tube is placed into the trachea and the patient breathes through the tube (inner cannula) and not through the nose.

Any dust, dirt, pollen or germs are trapped in the mucus below the cuff. This mucus must be removed by suctioning from time to time. This suctioning is performed according to the needs of the patient. Some patients need it more frequently than others.

TRACH CARE* HOME CARE GUIDE

Signs That Suction is Needed

- Blue color of the patient's lips and skin around the mouth means not enough oxygen is getting into the lungs because mucus may be blocking the tracheostomy tube.
- There are gurgling, rattling, or wheezing sounds when the patient breathes in and out.
- The patient is fussy, fidgety, or agitated more than normal.
- The patient is using the neck and chest muscles to breathe (labored breathing).
- The patient's breathing rate increases above normal.
- If on a ventilator, the high pressure alarm may be sounding.

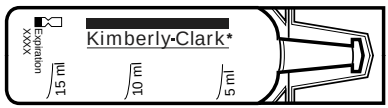
Who Should Suction?

Suction can be performed by anyone who has been properly trained. Many patients learn to suction themselves. Others need help from mom, dad, the school nurse or whoever has been trained to do it safely. Always follow the instructions given to you by your health care provider. Suction can be an important life saving procedure.

Equipment and Supplies

Assemble the required equipment:

- TRACH CARE* closed suction system
- Suction tubing
- Suction machine
- Saline Vials



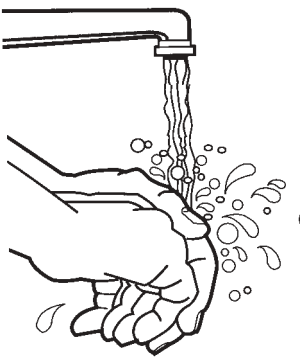
- Clean gloves (if instructed to be used by your Healthcare Provider)
- Tissues

Place to Suction

Suctioning should be done in a quiet place with no distractions. Always follow the instructions given to you by your Healthcare Provider and those given before leaving the hospital. Always have all the required equipment before beginning the suction procedure.

Suction Procedure Step by Step:

1. Wash your hands.

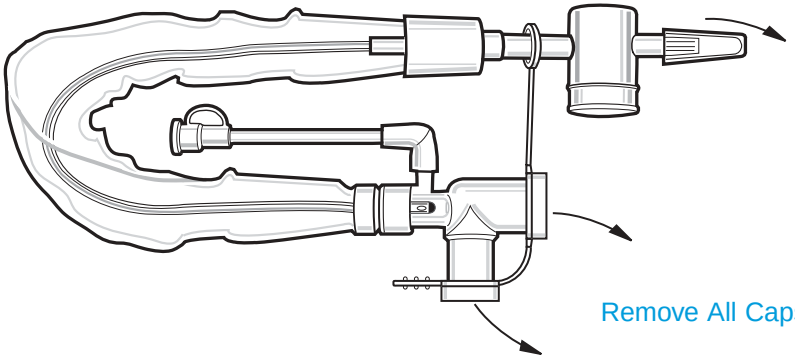


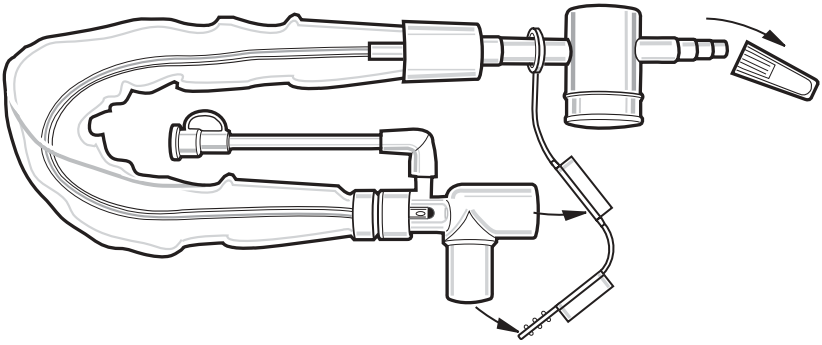
This is extremely important. Do not introduce new germs into the tracheostomy area.

An alcohol or disinfectant foam is an acceptable substitute if soap and water are unavailable. Clean gloves can be used, but are not a substitute for hand washing.

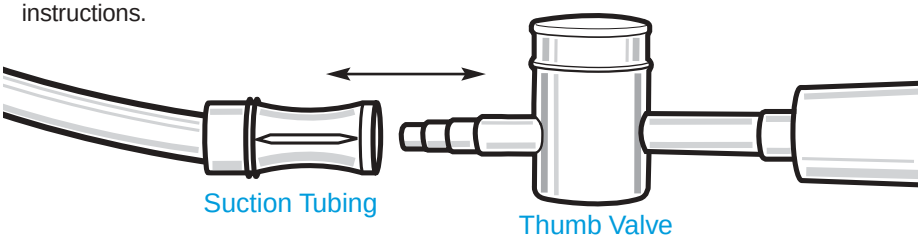
Step by Step - continued

2. Open the package and remove all caps.





3. Connect the thumb valve to the suction tubing, and the other end of the suction tubing to the canister of the suction machine. Always follow your health care provider's instructions.

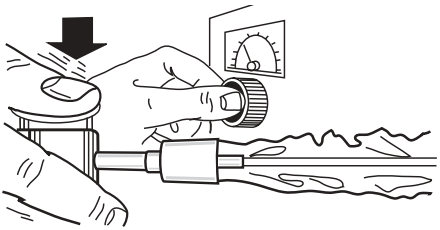


Step by Step - continued

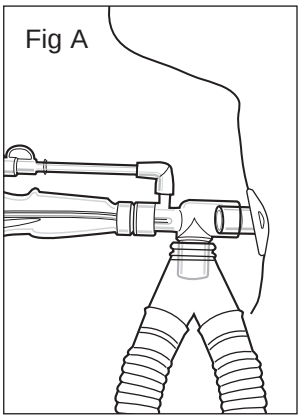
4. Make sure the vacuum setting is correct. The only setting you need to check is the amount of vacuum from the suction machine. It is important to use only the right amount.

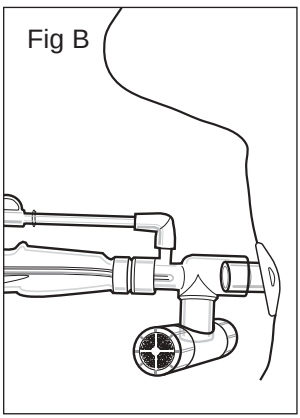
The setting on the suction machine will be set by your health care provider, and probably will **not** need to be changed. If it is changed accidentally, then it should be set as follows:

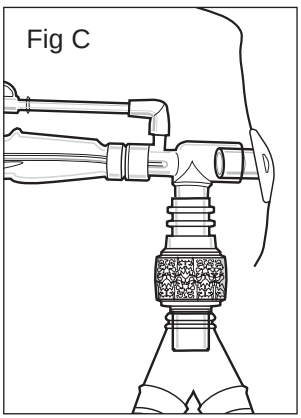
- Turn on the suction machine
- Depress the thumb valve on the TRACH CARE* closed suction system and hold it down
- While holding down the thumb valve, adjust the suction machine to the setting instructed by your health care provider. If that number is unknown, then set it to between 80 and 100 mm/Hg on the dial.



5. Attach the patient port side of the elbow to the inner cannula of the tracheostomy and reconnect the ventilator (see Fig A below). If using only an HME (heat moisture exchanger), reattach it to the other port on the elbow (see Fig B below). If the patient is using both an HME and the ventilator, attach both to the ventilator side of the elbow (see Fig C below).



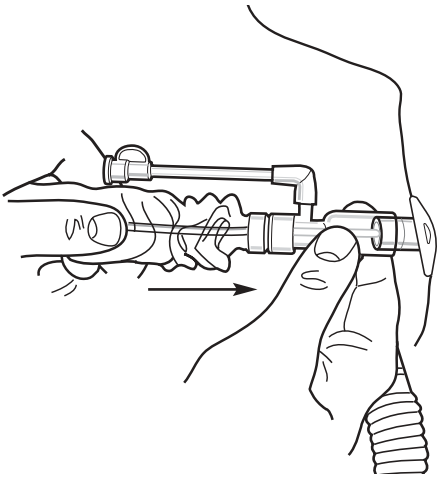




6. If necessary, adjust the ventilator according to the instructions given to you by your health care provider.

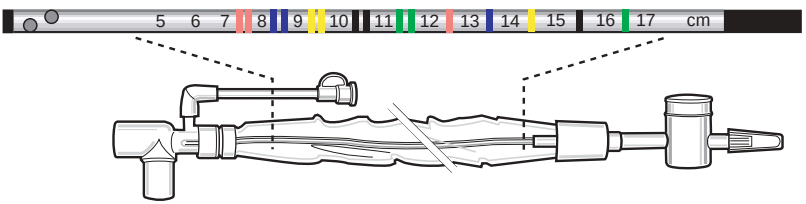
Step by Step - continued

7. If not on ventilatory support, before suctioning, take some deep breaths. If on ventilator, follow the instructions given to you by your health care provider.
8. Support the elbow connector and tracheostomy tube with one hand, and then grasp the catheter through the sleeve and advance the catheter slowly.



9. Continue to insert until the proper color strip or number is seen. Follow the instructions given to you by your health care provider.
10. The suction catheter should not go deeper than slightly beyond the end of the tracheostomy tube. If your health care provider has not given you the reference color stripe, you can determine this yourself as follows:

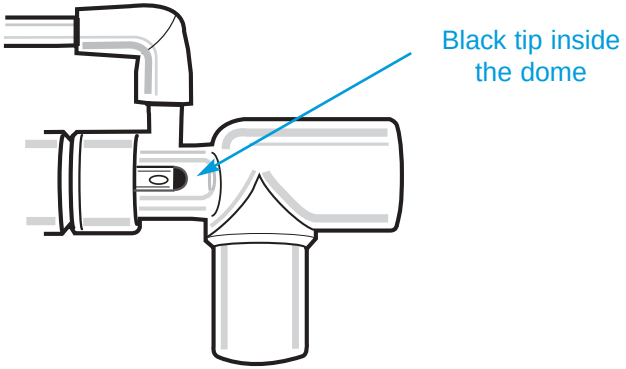
    - Obtain a new tracheostomy tube that is the **same size** as the one in the patient.
    - Attach a new TRACH CARE* closed suction system and advance the catheter until the black tip is just barely visible beyond the tip of the tracheostomy tube.
    - Look at the color stripe or number in the dome.



    - When suctioning, do not advance the catheter further than the color stripe seen in the dome.

Step by Step - continued

11. Depress the thumb valve with one hand, and support the tracheostomy tube with the other hand and pull gently until the black tip is visible in the dome.



12. Repeat steps 8 through 11 as necessary.

Infection Control

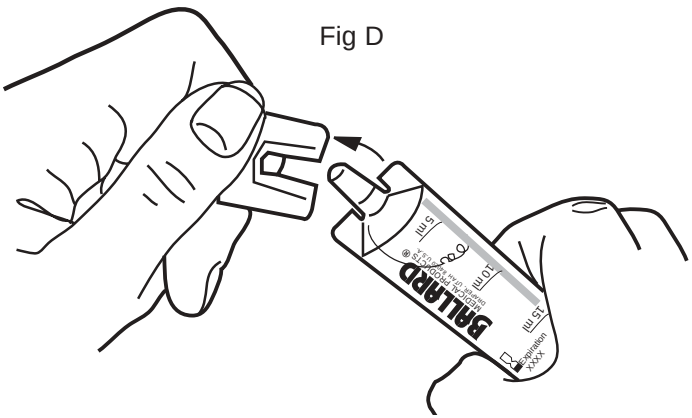
It is important to keep the TRACH CARE* closed suction system clean and rinsed properly to prevent infections. If the patient is on continuous ventilator support, the TRACH CARE* closed suction system can be rinsed in place while still attached to the ventilator circuit.

Cleaning the Catheter

For the patient on the ventilator, follow the steps below:

1. Open the saline vial (see Fig D below):

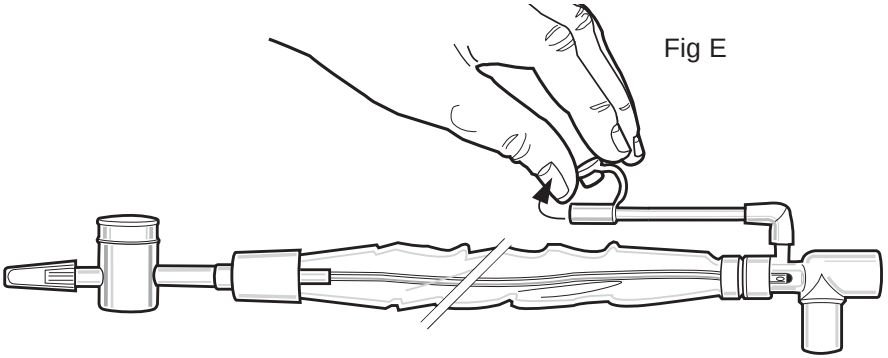
Fig D



Cleaning the Catheter - continued

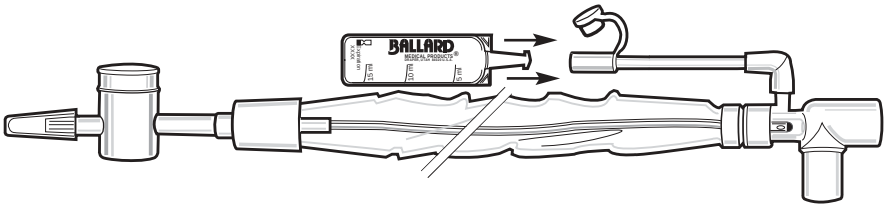
2. Open the cap on the saline port (see Fig E below).

Fig E



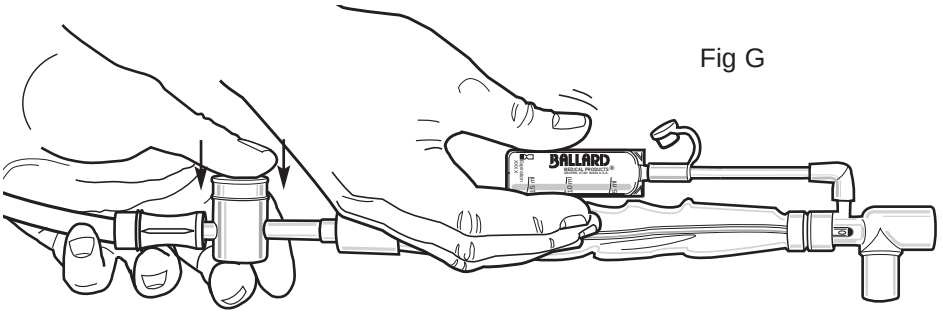
3. Insert saline vial into the saline port (see Fig F below).

Fig F



4. Slowly depress the thumb valve while also squeezing the saline vial (see Fig G below):

Fig G



Cleaning the Catheter - continued

5. Continue to depress and squeeze until all the saline has been rinsed through the catheter. **Note: It is important to rinse completely with all of the saline.**

To rinse the TRACH CARE closed suction system when it is **not** attached to the patient, do the following:

1. Detach the closed suction system from the inner cannula, and reattach the HME. Leave the suction tubing attached to the thumb valve. Do not replace the caps.

2. Lay the TRACH CARE closed suction system on a clean towel.

3. Open and insert the saline vial (see Fig D and Fig F in the previous section).

4. Slowly depress the thumb valve and squeeze the saline vial (see Fig G in the previous section).

5. Continue to depress and squeeze until all the saline has been rinsed through the catheter. **Note: It is important to rinse completely with all of the saline.**

Storage

The TRACH CARE closed suction system may be stored while still attached to the suction tubing, or it may be detached. Always follow the instructions given by your health care provider.

Place the TRACH CARE closed suction system in a clean, dry, dust-proof place as indicated in the instructions given by your health care provider.

TRACH CARE* HOME CARE GUIDE

Glossary

Airway: The term used to describe the air passages.

Apnea: Not breathing.

Aspiration: Inhalation of any foreign matter, such as food, drink, saliva, or stomach contents (as after vomiting) into the airway below the level of the vocal cords.

Catheter: The long thin plastic tube inside the sleeve of the TRACH CARE* closed suction system.

Cuff Deflation: The act of removing air from the cuff of a tracheostomy tube.

Cyanosis: A bluish color present in the skin when oxygen is low.

Diaphragm: A thin, dome-shaped muscle, important in breathing; separates stomach and chest cavities.

Dyspnea: Air hunger, shortness of breath, difficulty breathing.

Humidifier: A device that provides moisture to the air we breathe.

Hypoxia: Low oxygen in the body or blood.

Inner Cannula: The part of the tracheostomy tube that adapts to standard respiratory equipment, such as a ventilator.

Larynx: Voice box.

Lower Airway: That portion of the respiratory tract beginning at the larynx (voice box) and ending at the smallest units in the lungs.

Mucus: The thick fluid that collects in the airway and trachea, also known as secretions.

Pilot Balloon: Plastic sack-like component connected to the inflation line and luer valve of the tracheostomy tube which allows for inflation and deflation of the cuff.

Saline Vial: Contains a mixture of salt and water which is used to rinse the TRACH CARE* closed suction system.

Stenosis: Narrowing of the upper airway caused by scar tissue in the trachea.

Stoma: The name of the hole (opening) through the skin into the trachea.

Suction: Removal of gas or fluid (secretions) with a catheter.

Tachycardia: Fast or rapid heartbeat.

Trachea: The windpipe.

Tracheostomy: An artificial opening in the trachea that facilitates the passage of air and removal of secretions.

Tracheotomy: The name of the medical procedure during which the tracheostomy is made.

Upper Airway: The portion of the respiratory tract beginning at the mouth and nose and ending at the larynx (voice box).

Ventilator: The breathing machine that moves air and oxygen in and out of the lungs, and attaches to the tracheostomy tube and the TRACH CARE* closed suction system.

References:

Sherman, J.M. and S. Davis, *Care of the Child with a Chronic Tracheostomy THIS IS AN OFFICIAL STATEMENT OF THE AMERICAN THORACIC SOCIETY*. Am. J. Respir. Crit. Care Med., 2000. **161**(1): p. 297-308

McInturff, S.L., et al., *AARC Clinical Practice Guideline: Suctioning of the Patient in the Home.* Respiratory Care, 1999. **44**(1): p. 99-104.

Portex, *A Handbook for the Home Care for Your Child with a Tracheostomy.* 2003. found at <http://www.portexusa.com/literature/LT2142_Pedi_trach_guide.pdf>

TRACH CARE* HOME CARE GUIDE

The Concept is Simple. The Results are Extraordinary.

Patients breathing through an artificial airway require the removal of airway secretions and clearance is essential. This process is especially critical in the mechanically ventilated patient but also important to any patient with an artificial airway. A totally, or even partially blocked airway can be a life threatening situation and could lead to several serious physiological abnormalities and even death.

Until the late 1970's, open endotracheal suctioning systems were the only available method. Open suctioning requires the use of a sterile suction kit, sterile water, a manual resuscitator bag, and sterile gloves. A face mask and eye protection are also recommended. Each time a patient is suctioned, a large amount of waste is accumulated due to the disposal, single-use nature of the materials.

Over the past two decades, closed endotracheal suction systems have become common in the care of mechanically ventilated patients. With recent major improvements in reimbursement, patients in the home care environment can now enjoy the many benefits of closed suction systems.
www.kchealthcare.com

Benefits of a Closed Suction System:

Protects the Patient and Caregiver

- Helps reduce the potential risk and spread of infection and contamination entering the airway
- Protects the caregiver from exposure to patients' body fluids

Simple and Easy Procedure

- Simple to attach, suction, clean, and disconnect the catheter
- Easy to read markings for proper depth suctioning

Less Waste

- Reusable up to 24 hrs

Maintains Ventilation for Ventilator-Assisted Patients

- Removes secretions from the airway while maintaining ventilation and oxygen therapy throughout the suctioning procedure

TRACH CARE* HOME CARE GUIDE

Important Telephone Numbers

Use this space to keep all important telephone numbers in one place.

1. Healthcare Provider _____

2. Doctor _____

3. Hospital Emergency Room _____

4. Medical Supply Dealer _____

5. Pharmacist or Drug Store _____

6. Respiratory Therapist _____

7. Home Care Nurse _____

Facts and Important Information:

This space is provided for you to write down important information in one place in case it is needed in an emergency:

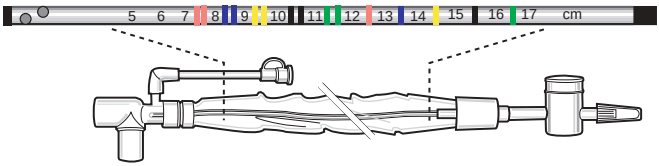
1. The reason for my child's tracheostomy is _____

2. The size of the tracheostomy tube is _____

3. The type of the tracheostomy (brand name) _____

4. The TRACH CARE REF (catalog number) is _____

5. _____is the depth of insertion (write in the color stripe or number).



6. The suction machine pressure should be set at _____

7. Place where extra tracheostomy tubes are kept _____

8. Place where extra TRACH CARE* closed suction systems are kept _____

9. Place where extra saline vials are kept _____

10. The name of the ventilator is _____

Manufactured by Ballard Medical Products, Draper, Utah 84020 USA
Distributed in the U.S. by Kimberly-Clark Global Sales, Inc. Roswell, GA. 30076 USA
Kimberly-Clark N.V., Belgicastraat 13, 1930 Zaventem, Belgium
http://www.kchealthcare.com In USA call 1-800-528-5591;
International call + 1 801 572 6800

R13070 4/05