

# Understanding Tracheostomy Care

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HEALTH

## Inside this guide:

This guide will help you learn how to take care of your tracheostomy (trach). It is important to ask questions. You will be given time to learn. Working with the healthcare team, you will be able to show you are skilled and able!

### **This booklet will answer some of the questions you may have:**

How does a tracheostomy (trach) work?.....	3
What are parts of a trach tube? .....	4
How do I suction the trach? .....	5
How do I take care of the area around the stoma (trach opening)? .....	6
What do I need to know to change a trach? .....	8
What is a resuscitation (breathing) bag? .....	9
What is an oximeter? .....	9
How do I work with oxygen? .....	9
What is humidity used for? .....	9
What is a ventilator (breathing machine)?.....	10
How do I use a speaking valve? .....	10
How do I troubleshoot breathing problems? .....	12
What do I need to know for breathing emergencies? .....	13
What should be in a Go bag? .....	15
When do I call the doctor?.....	16

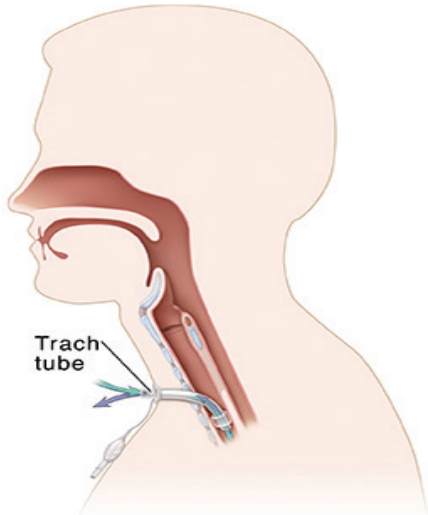
**Use the white space on each page to add your own notes.**

# How does a tracheostomy (trach) work?

## What is a tracheostomy?

A tracheostomy is an opening created for air to flow into the lungs. Reasons to have a trach can include:

- Use of a long-term ventilator (machine to help with breathing)
- Blocked airway because of an accident, paralysis, surgery, or other problem
- Frequent need to suction (clear the airway)
- Blockage of airway during sleep, known as sleep apnea



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A tracheostomy creates a shorter path to the lungs by an opening in the neck into the windpipe (trachea).

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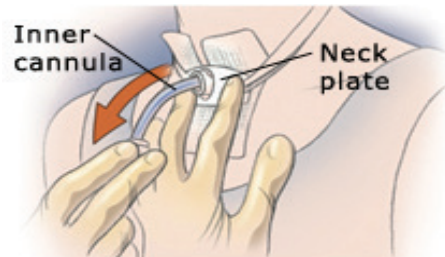
## What are parts of a trach tube?

Trachs may be made up of 3 parts:

- Inner cannula (tube)
  - o This part may be replaced or removed for cleaning.
  - o You may be told how to clean it or if it should be discarded.
  - o You will be told if you should change it and how often:\_\_\_\_\_.

- Outer cannula
  - o This should not be removed.
  - o A cuff on the outside is inflated to block air around the tube. Air or sterile water may be added to the small tube called a pilot balloon.
  - o You will be told how much air or sterile water to fill the pilot tube.

- Obturator
  - o Helps with placing the trach. Keep this nearby in case the trach tube comes out.



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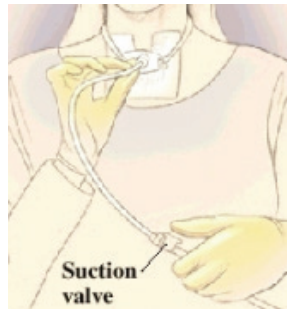
**Use the notes section** to write down the type and size of trach and any other helpful care facts you want to remember such as name, size, (cuffed or non-cuffed), (water or air-filled), (fenestrated or non-fenestrated).

## How do I suction the trach?

It is not always possible to cough out secretions from a trach. In the hospital, suctioning is done by staff using a sterile technique. When you learn, and while you are at home, you will use a clean technique.

### Supplies you will need include:

- Suction machine
- Suction catheter and packaged gloves
- Suction connecting tubing
- Saline drops, if needed



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### Steps you will use for suctioning:

1. Wash your hands and apply gloves
2. Connect suction catheter to suction tubing and tuck under arm (be careful to not let the catheter slip out)
3. Advance suction catheter (without applying suction) into trach till patient starts coughing. Maximum length of catheter advancement 20 cm.
4. Apply suction and rotate catheter slowly while withdrawing catheter (approx. 15-20 seconds) completely
5. Apply oxygen to allow breathing to recover
6. Repeat above until clear
  - a. If secretions are thick, use saline drops
7. Apply oxygen source and ensure comfort
8. Rinse suction catheter with sterile water
9. Place suction catheter in clean package at bedside
10. Rinse connecting tubing
11. Wash your hands

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## How do I take care of the area around the stoma (trach opening)?

Keep skin clean and dry. Do skin cares every 12 hours and as needed. Trach ties hold the tube in place. Ties should not be too tight or too loose.



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### Trach care supplies needed:

- Sterile cotton-tipped applicators
- Sterile water, gloves
- Normal saline vials (pink jets or bullets)
- Hydrogen peroxide, if applicable
- Suction equipment
- Trach ties
- Medicine cup or small container
- Trach dressing, if applicable
- Skin barrier, if applicable

## Cleaning around the trach:

1. Wash hands and apply gloves.
2. Suction trach if needed.
3. Fill medicine cup or container with sterile water (if peroxide used, use a half water and half peroxide mix).
4. Place sterile, cotton-tipped applicators in sterile water.
5. Clean trach plate with moistened cotton-tipped applicators.
6. Clean skin under the trach plate with moistened cotton-tipped applicators. Be careful when cleaning under trach by using cotton-tipped applicators by rolling between your fingers. Always move away from the trach opening.
7. Dry the area with sterile cotton-tipped applicators or 4X4 sponge.
8. Use a skin barrier if there is redness or open areas.

## Changing Trach Ties:

Trach ties should be changed as needed if wet or soiled.

- Take off trach tie only 1 side at a time.
- Secure trach tube by holding lightly with your finger. Be careful not to plug the trach.
- Re-attach clean trach tie.
- Move to the other side and repeat.

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## What do I need to know to change a trach?

The trach tube is changed for cleaning or if there are problems breathing. Change the trach at least 1 time every 3 months **if you have been taught to do so**. Depending on your care provider's advice, it may be changed more often. If you have not had enough training or you are not comfortable changing the trach, please go to your health care provider for trach changes.

Have all emergency supplies (including resuscitation bag and mask), obturator, syringe, new trach and a smaller trach ready. It is a good idea to have a second person available whenever you change the trach.

Try to change the trach tube in a quiet place where you will not be disturbed. Do the trach change with one of your support persons. Wash your hands. Apply gloves if used.

1. Have supplies, emergency equipment, and helper ready.
2. Check new trach by making sure cuff inflates properly if a cuffed trach is used.
3. Suction if needed. Allow to recover.
4. Remove trach dressing.
5. Check the skin around the stoma for any redness, swelling, cuts, or bruises.
6. Prepare new trach by putting trach ties on 1 side. If you have an inner cannula, remove inner cannula and place obturator.
7. Remove tie on 1 side and hold in place.
8. Deflate cuff (if there is a cuff) by removing air or sterile water with syringe.
9. Remove old trach tube.
10. Put in new trach tube. Remove obturator if present. If there is an inner cannula, place it at this time. If you have a cuff, re-inflate cuff with sterile water or air if advised. Secure trach.



## What is a resuscitation (breathing) bag?

A resuscitation bag helps supply oxygen into the lungs. A resuscitation bag is used to assist breathing. A mask is attached when someone does not have a trach or if attempts to clear a trach do not work.

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## What is an oximeter?

A device that measures the oxygen level is called an oximeter. This may be connected to a finger. You may notice a red light on the tip. Your healthcare provider will tell you what this number should be.

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## How do I work with oxygen?

Oxygen is dangerous around sources of fire. **Do not smoke or allow smoking** in your home. Do not have any open flames such as burning candles. Do not cook while wearing your oxygen. Oxygen tanks and concentrators should be handled with caution. Use the prescribed dose of oxygen. Be aware of risk of falls from oxygen tubing.

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## What is humidity used for?

The airway must be kept moist at all times. Humidity may be applied to the trach and can be used with or without oxygen. A heat moisture exchanger, called an HME or nose, helps to keep the airway from becoming too dry and protects food or water from entering from the outside into the trach during bathing. Change as needed or as advised by your equipment provider.

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## What is a ventilator (breathing machine)?

Some people will need a machine to help with breathing. Your healthcare team will help you and your loved ones adjust to it and use it safely. Home ventilators are usually small and portable. Most types can be attached to wheelchairs. They can also be set up by the bed for use when sleeping. A ventilator works by pushing air (and extra oxygen, if needed) into the lungs. Ventilators can deliver various types of breaths. Some people may only need it at certain times, such as when sleeping.

## How do I use a speaking valve?

With a trach, air does not flow near the vocal cords. Some trachs can be adapted later with a valve to allow for speech. The speaking valve is called Passy-Muir or PMV.



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## Important things to know

- **Do Not use the speaking valve with the cuff inflated.** You will not be able to breathe.
- Always remove the speaking valve when doing a nebulizer treatment. The medication will cause the valve to stick.
- When you are finished with the speaking valve, re-inflate cuff if it was inflated before. Return to oxygen or HME (nose) you were using before using speaking valve.

Here are steps to use the valve:

1. Suction trach if needed.
2. Deflate the cuff on the trach tube if there is one.
3. Apply speaking valve to trach.
4. Apply humidity or oxygen, if needed.

Clean the valve when finished. Swish the valve in fragrance-free soap and warm (not hot) water. Rinse thoroughly with warm water. Allow the speaking valve to air dry thoroughly before placing it in the storage container.

- **Do not** apply heat to dry the valve.
- **Do not** use hot water, peroxide, bleach, vinegar, alcohol, brushes or cotton tipped applicators to clean the valve.

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## How do I troubleshoot breathing problems?

Problem:	Actions:
Wheezing, coughing	Trach may need to be suctioned; Use nebulizer or inhaler as you have been advised.
Trach ties become loose	Check tightness of tie. Keep two fingers width space under ties or holder. Replace as needed.
Mucous build-up, mucous that is thick, smelly, yellow, or green	Suction, check temperature for sign of infection, use saline if needed, and inner cannula or trach tube may need to be changed.
Shortness of breath	Check all oxygen connections if oxygen is being used.



**An oxygen source and breathing bag should be near at all times.** It is best to have it connected and ready to use. Use breathing bag if having a hard time breathing (such as seeing pulling in between ribs or neck).

1. First, you must determine that the airway is clear.
2. Is air flowing in and out?
  - a. If no, make sure the tubing, bag, and flowmeter are connected. Turn on the oxygen tank to 10-15 LPM and attach the resuscitation bag to the trach. The reservoir must be inflating or extended. Attempt to give rescue breaths. Give 1 breath every 5 seconds.
3. Try to give a breath by squeezing the bag, if you cannot get air in or see chest rise, try suction. If unable to suction, you may give saline drops to loosen secretions.
4. Try again to give a breath. If you still cannot get air in, change the inner cannula if present.
  - a. If that does not help, change to a new, same size trach.
  - b. If unable to place the same size trach, then place one size smaller.
  - c. Hold the trach tube in place. Secure with a tie when able.
5. Try to give a breath. If still unable to give a breath, you should remove the trach tube, cover stoma with a cloth with one hand and place a mask on the bag, apply to face, covering the nose & mouth. Make sure you have a good seal. Begin giving breaths with the mask and bag.
6. **If no response or gray, blue, or pale color you need to get help and call 911. Start CPR if no pulse.**



## When do I call the doctor?

Call your healthcare provider right away for any of the following:

- Shortness of breath, wheezing, or coughing not controlled by breathing treatments or suctioning
- Red, painful, or bleeding stoma
- Swelling around the trach tube
- Fever of 100.4°F (38°C) or higher, or as directed by your healthcare provider
- Yellow, smelly, bloody, or thick mucus
- Coughing up blood
- Vomiting that doesn't go away

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If there are problems with breathing, start the trouble-shooting you have learned and **have someone call 911 right away.**

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