

Home Tracheostomy Care

Information for Patients and Families

Respiratory Services

This booklet tells you about your tracheostomy and how to care for it at home. This booklet also gives you helpful tips and reminders so move from hospital to home is as easy as possible. Your respiratory therapist will help you to understand the information and how to do the care.

- Take your time.
- Write down any questions you might have.
- Talk to us about your concerns and ask questions.

We are here to help you and your family.

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Words to Know

Artificial Nose (Artificial sounds like <i>art-eh-fish-all</i>)	A heat and moisture exchanger that attaches to the tracheostomy tube and used to warm and moisten the air you breathe in
Aspiration (sounds like <i>ass-per-ray-shun</i>)	When foods or liquids accidentally go down the trachea into the lungs, rather than down the esophagus into the stomach
Chest Percussion (Percussion sounds like <i>per-ka-shun</i>)	Using cupped hands to clap the chest wall with a regular rhythm
Chest Vibration (Vibration sounds like <i>vi-bray-shun</i>)	Using an electronic vibrator to vibrate or shake the chest wall, or when another person uses both hands to vibrate the chest wall when you breathe out
Cuff	The balloon at the end of some tracheostomy tubes When blown up or inflated, the cuff seals the trachea
Epiglottis (sounds like <i>ep-ee-glot-tis</i>)	A flap in your windpipe that closes when you swallow to prevent food from entering your lungs
Esophagus (sounds like <i>ee-sof-fuh-gus</i>)	A hollow tube that connects your mouth and throat to your stomach Your ‘food tube’
Fenestrated Tracheostomy Tube (Fenestrated sounds like <i>fen-uh-tray-ted</i>)	‘Fenestrated’ means having an opening or window A tracheostomy tube with a window in the tube. When you cover the outside opening, air moves through this window to your vocal cords so you can talk
Heat Moisture Exchanger	A device that attaches to your tracheostomy tube to help warm and moisten the air you breathe Also called an ‘artificial nose’
Humidistat (sounds like <i>hue-mid-iss-stat</i>)	A device that monitors and controls the amount of moisture in the air

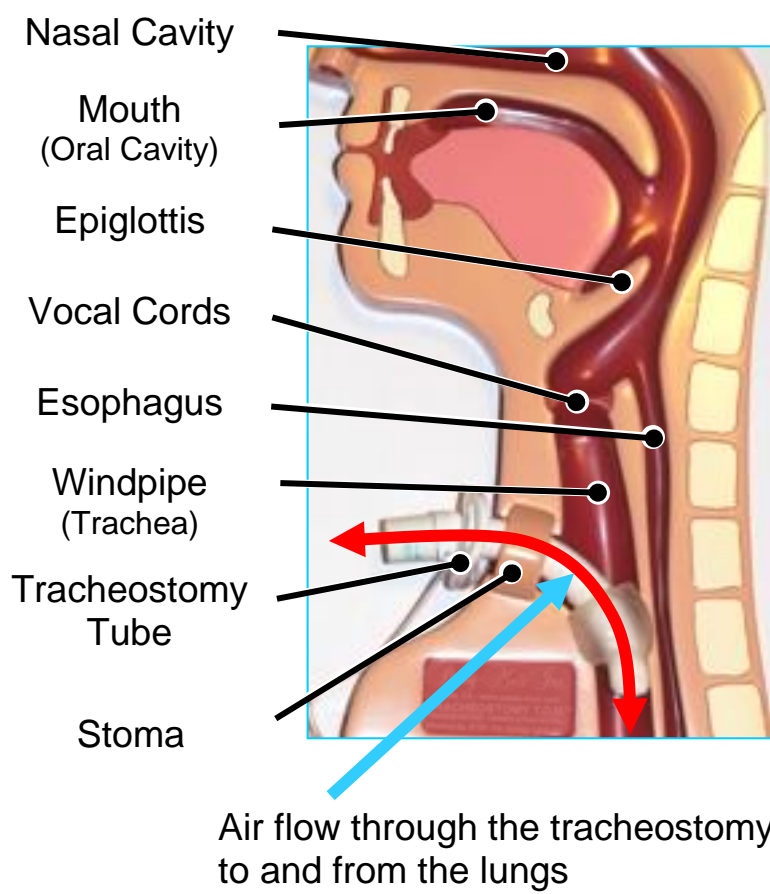
Inner Cannula (Cannula sounds <i>can-you-la</i>)	The removable inner tube of your tracheostomy tube.
Mucus	Produced by your windpipe. Normally thin in consistency and white or clear in colour
Nebulizer	A machine that takes a liquid such as sterile salt water and turns it into a mist so you can breathe it in Sometimes medication is added to the liquid
Obturator (sounds like <i>ob-tour-ate-or</i>)	A hard, rigid tool used to guide the tracheostomy tube into the stoma
Outer Cannula	The outer part of the tracheostomy tube that stays in the trachea
Pilot Balloon	A small balloon connected to the cuff of a cuffed tracheostomy The cuff is inflated or deflated when the pilot balloon is
Stoma (sounds like <i>stow-ma</i>)	The hole made in the neck that the tracheostomy tube goes through
Trachea (sounds like <i>tray-key-yah</i>)	Commonly called the windpipe How air gets in and out the lungs
Tracheostomy (sounds like <i>tray-key-oss-toe-me</i>)	When an opening is made through the skin of the neck and into the windpipe
Tracheostomy Tube	A hollow, plastic tube placed in the opening of the windpipe to keep it open Also called a 'Trach Tube' (<i>trayke</i>)

Your Breathing

Knowing how you breathe will help you understand your tracheostomy.

Air comes into your lungs when you breathe. Usually air enters your lungs through your nose and mouth, travels down the windpipe (trachea) to your lungs. Air is warmed, cleaned, and moistened as it travels from your nose to your lungs. Your lungs are the organs for breathing.

When you swallow, a small flap (called the epiglottis) closes over the trachea so that food goes into the food tube (called the esophagus) rather than the trachea, like a flapper valve.



Breathing with a Tracheostomy Tube

An opening is made through the skin of your neck into your trachea to help you breathe. This opening is called a stoma.

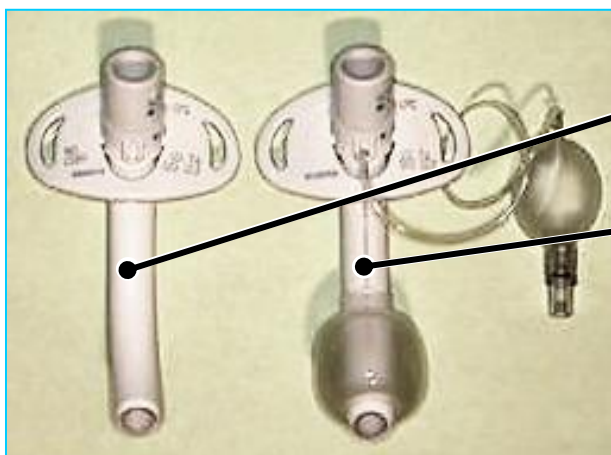
A tube, called a tracheostomy tube is placed into this opening. (You will hear us refer to this as your 'trach' tube which sounds like *tray-k*.) The tracheostomy tube allows you to breathe in air directly into your trachea instead of through your mouth and nose.

There are many reasons why a person needs a tracheostomy tube. Your doctor would have explained why one is necessary for you. If you are not sure as to why you have one, ask us.

Because the air goes straight into your trachea, your nose can no longer clean, warm, and moisten the air you breathe. Your stoma is located below your vocal cords, so you might only be able to talk by covering the opening of your tracheostomy tube.

You might find you need to be very careful swallowing, to keep food from going into your lungs.

We will talk more about all of these things later in this book.



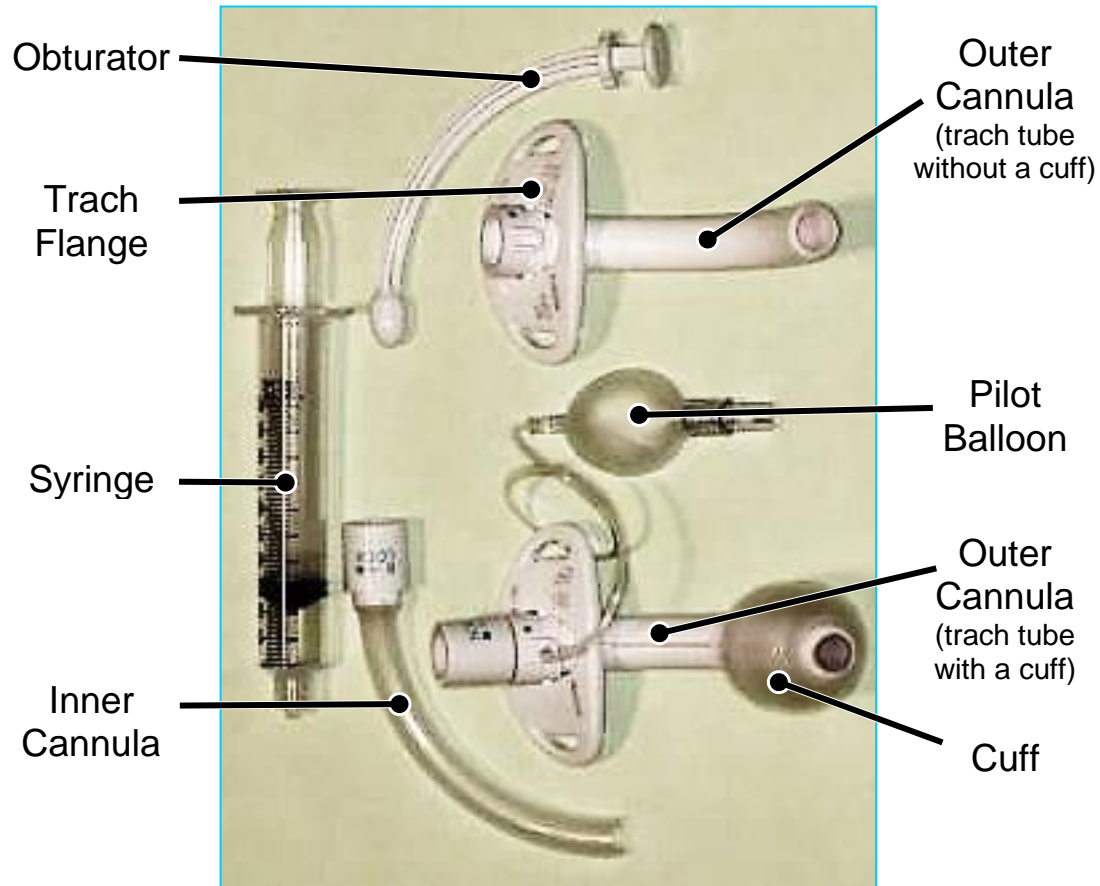
Tracheostomy tube without a cuff

Tracheostomy tube with a cuff

Your Tracheostomy Tube

Before caring for your tracheostomy tube, you need to learn more about the tube, how it goes together, and how it works.

The different parts of a tracheostomy tube are:



The **outer cannula** fits into the trachea and keeps the trachea and stoma open while it heals.

The **trach flange** or tracheostomy flange is a plate attached to the outer cannula. It has holes on either side. You attach ties to the tracheostomy flange. The ties are tied around your neck. This keeps the tube from falling out.

The **inner cannula** locks into the outer cannula and can be removed and cleaned frequently. Some people have to clean the inner cannula often to clear it of mucous. (There is more than one type of inner cannula. Make sure you know which one you are using.)

The **obturator** is used only when the entire tracheostomy tube is changed. It acts as a guide when the outer cannula is inserted through the stoma into the trachea.

The **cuff** wraps around the end of the outer cannula. When inflated, it forms a seal between the tracheostomy tube and the sides of the trachea. The cuff prevents air from entering or escaping around the tube to the mouth and nose.

To inflate the cuff, air is injected into the **pilot balloon** using a **syringe**.

Getting Ready to Go Home

Even though you might not be going home right away, we want you to think about going home now. You need to learn how to care for your tracheostomy tube while you are in the hospital so that you are comfortable caring for yourself at home.

We provide you with a number of education sessions while in the hospital.

Have a family member or friend join you for the education sessions. It is handy to have someone else who knows what to do, especially if you need help, are sick, or in case you have a problem.

Bring this booklet to every education session. Feel free to write notes in this booklet.

Ask lots of questions. Your respiratory therapist, nurses and doctors are your resource. We want to make sure you understand how to take care of a tracheostomy tube properly.

Get as much practice as you can so that you are comfortable doing your tracheostomy care. The more practice you have, the more confident you are. The more confident you are, the easier it should be for you at home.

Before you go home, we give you some supplies to get you started with your tracheostomy care. You will need to buy additional supplies.

You will need to rent a portable suction machine. We help arrange for this.

Supplies

Item	Where to buy
<input type="checkbox"/> Inhalation saline (in pink vials)	Medical supply store
<input type="checkbox"/> Reusable or Disposable (red rubber) suction catheters	Medical supply store
<input type="checkbox"/> Extra tracheostomy tubes (1 same size and 1 smaller)	Medical supply store
<input type="checkbox"/> Tracheostomy ties or holders	Medical supply store
<input type="checkbox"/> Pre-cut tracheostomy dressings	Medical supply store
<input type="checkbox"/> Water-soluble lubricant (such as KY Jelly)	Pharmacy
<input type="checkbox"/> Disposable gloves	Pharmacy
<input type="checkbox"/> Tracheostomy brush <u>or</u> Cotton-tipped swabs (such as Q-tips)	Medical supply store or Pharmacy
<input type="checkbox"/> Box of facial tissue	Pharmacy or grocery store
<input type="checkbox"/> Hydrogen peroxide	Pharmacy
<input type="checkbox"/> Sterile salt water (saline)	Can be made at home (Page 46) or bought at a pharmacy
<input type="checkbox"/> Sterile water	Can be made at home (Page 46) or bought at a pharmacy
<input type="checkbox"/> Vinegar	Grocery store
<input type="checkbox"/> Mirror	Pharmacy or department store
<input type="checkbox"/> Scissors	Pharmacy or department store
<input type="checkbox"/> 2 dishwasher-safe, containers (stainless or glass)	Grocery store

Note: For a list of suggested medical supply stores, see Page 48.

Equipment

- ☐ Humidifier
- ☐ *Portable suction machine (fully charged)*
- ☐ *Manual breathing bag (if ordered by doctor)*
– called a resuscitation bag

Emergency Equipment

Any items on the Supply and Equipment Lists in *Italic* are Emergency Equipment.

Keep these emergency supplies in a clearly labelled bag.

Keep Emergency Bag in full view at all times.

Check your Emergency Supplies and Equipment every day to make sure you have everything you need and the equipment is working properly.

Make sure everyone in your home knows where your supplies are kept.

Living with a Tracheostomy

Living with a tracheostomy can affect your lifestyle. It can mean that activities and choices you might have previously enjoyed you have to do differently or can no longer do.

You will need to think about your daily lifestyle and look at how to plan your tracheostomy care into your day. It is possible to adapt your daily living so you are not restricted by the tracheostomy.

Rest and sleep

Recovery from this surgery usually takes 3 to 6 weeks.

However, everyone recovers at their own rate. When you get home, you might be surprised how tired you are. This is normal.

Rest is important to your recovery.

- Plan to rest twice a day for the first week at home. Then rest at least once a day until you feel fully recovered. Your rest time should be between 30 and 60 minutes. Sleep or just rest quietly.
- Try to get at least 8 hours of sleep each night. It might take you a couple of nights to adjust to sleeping with the tracheostomy.

Bathing

When you wash your face or take a bath, be careful not to splash water into your tracheostomy tube.

When taking a shower, you must keep the water from getting into the tracheostomy tube and stoma.

- Point the shower head at your lower chest.
- Loosely tie a scarf, thin cloth, or baby bib around your neck to cover your tracheostomy tube and stoma. You can also buy a 'shower shield' from any medical supply store.

Take extra care to cover your tracheostomy tube when you use powders or any kind of sprays around your face and neck.

For men, take care to cover your tracheostomy tube when shaving.

Clothing

Protect your tracheostomy from getting such things as hair, dust, or food in it. Cover your tracheostomy with a loose scarf.

On the other hand, **do not** block your tracheostomy tube with clothing. It is best not to wear a turtle neck, crew neck or any other top that tightly covers your tracheostomy. Choose v-neck tops and leave shirt collars open at the neck.

Another thing to think about is the type of fabric you wear. Choose materials that are lint-free and do not have loose fibres that you could accidentally breathe in.

Physical activity and exercise

For the first few days at home, do the same amount of activity you were doing in the hospital. Gradually increase your daily activities. Remember to do your deep breathing and coughing exercises each day.

Take short walks each day. Gradually increase how far you walk. Remember – The air you breathe in will not be warmed or filtered by your nose or mouth. If it is cold or windy outside, wear a scarf or handkerchief loosely over your tracheostomy tube. You can also use an 'artificial nose' (called a Heat Moisture Exchanger – page 22).

Cold air, dust, or dirt can irritate your windpipe and lungs.

During the first 3 to 4 weeks at home, **do not** lift anything heavy, or pull or push heavy objects. 'Heavy' means anything that weighs more than 4.5 kilograms (10 pounds).



A 4 litre milk jug weighs 4 kg (9 pounds)

Stop and rest if you feel very tired, have pain, or feel short of breath during an activity. You might be trying to do too much. Contact your family doctor if you do not feel you are recovering or you are having trouble increasing your activity.

You might be able to return to work within 4 weeks but it depends on how you feel and the type of work you do. Talk to your doctor about a return-to-work plan.

Within 4 to 6 weeks, you should feel well enough to return to your regular exercise routine or sports. However, you should not do any contact sports. You do not want your tube moving or falling out.

You cannot go swimming – you will drown!

Getting out

Once you start to feel better and have more energy, try taking short trips to a friend's home or to the store.

Pollution and smoke can irritate your airways and increase your mucus. Try not to go to places where it is very smoky. Stay indoors on days when the air pollution index is high.

Try not to have close contact with animals that have fine hair. You don't want to inhale the hair.

If you are going to be away from your home, make yourself a travel kit. Include emergency supplies in case you need to change your tube and travel supplies you would need for simple care.

Travel Kit

Italic items are Emergency Supplies

- | | |
|---|--|
| <input type="checkbox"/> 2 <i>spare tracheostomy tubes</i>
(1 same size and 1 smaller) | <input type="checkbox"/> <i>Disposable gloves</i> |
| <input type="checkbox"/> Pre-cut tracheostomy dressings | <input type="checkbox"/> <i>Suction catheter</i> |
| <input type="checkbox"/> Tracheostomy ties | <input type="checkbox"/> Sterile saline (salt water) |
| <input type="checkbox"/> Trach care cleaning kit | <input type="checkbox"/> Tissues |
| <input type="checkbox"/> Water-soluble lubricant | <input type="checkbox"/> Cell phone (fully charged) |
| <input type="checkbox"/> Portable suction machine | <input type="checkbox"/> Emergency contact details |

If ordered by your doctor, also include:

- | | |
|---|--|
| <input type="checkbox"/> Manual Resuscitation bag | <input type="checkbox"/> Breathing medications |
|---|--|

When travelling, it is also a good idea to bring along with you:

- ☐ A list of all your medications
- ☐ A brief review of your medical history
- ☐ Your most up-to-date advance care plan*

*Information on advance care planning can be found in 'My Voice – Expressing My Wishes for Future Health Care Treatment' Advance Care Planning Guide by the B.C Ministry of Health. To get it online, go to [HealthLinkBC.ca](https://www.healthlinkbc.ca) and search 'Advance Care Planning'.

Staying healthy

To help reduce the chances of getting an infection, wash your hands often.

In addition to rest and sleep, good nutrition speeds healing.

- Eat regular meals. You might find it easier to eat 5 to 6 smaller meals a day to start with.
- Aim for 7 to 10 servings of fruit and vegetables each day (a serving is ½ cup).
- Include protein such as meat, cheese, beans, tofu, and eggs in at least two meals each day.
- You may find it hard to swallow or chew at first. Try not to eat tough fibre or dry foods initially (such as tough meat, corn, nuts, popcorn, crackers, and fruit skins). See the 'Swallowing and Speaking' section (Page 39).

Because your nose and mouth are not being used to filter the air you breathe, you are more likely to catch a cold, a virus, or the flu.

- Try not to be around people who are sick or have an illness that you could catch.
- Ask people who are sick to not visit you until they are feeling better.
- Ask anyone who has a cold, including care workers, to wear a mask when near you.
- Get the influenza shot (the 'flu' shot) every autumn.
- During flu season:
 - Do not go into crowded places such as restaurants or shopping malls. (Flu season is from late October to February or March.)
 - If you need to see your doctor, call ahead. Make a plan so that you are not waiting in the waiting room.
 - Keep at least 3 feet away from other people.
 - Get the influenza vaccination every year from your doctor or pharmacist.

When you get sick

If your illness affects your airways, you can produce more mucus, making it harder to breathe. Keep your suction equipment close by.

Drink more water and other liquids, especially if you have a fever, are throwing up (vomiting), or have loose bowel movements (diarrhea).

If you are throwing up, make sure you cover the tracheostomy tube with one of these:

- a towel
- a shower shield
- a Heat Moisture Exchanger (page 22)

Suction yourself right away if you think any vomit could have entered your airway.

Emotions

It is common for a person to go through a number of different emotions when dealing with something like a tracheostomy. At times you might feel worried, nervous, sad, stressed, or angry. Take time to talk to your doctor, nurse, respiratory therapist, or other health professional about any worries or concerns you might have about living with your tracheostomy.

Many people find it helpful to talk with another person who has a tracheostomy. You might want to join a tracheostomy support group. Ask your doctor about any support groups near where you live. It is important for you to explore your feelings and identify what makes you feel better. If you feel you would like help working through your feelings and challenges of coping with a tracheostomy, arrange to see a counsellor or a social worker for support.

Caring for Your Tracheostomy Tube

While in the hospital, we teach you and/or someone you live with how to:

- A. Clean your tracheostomy tube and inner cannula
- B. Clear mucus from your lungs
- C. Care for your stoma
- D. Change the tracheostomy ties

We help you practice each of these so that you can do them on your own.

Comparing care in the hospital to care at home

In the hospital, there is a risk of exposing patients to 'superbugs' or harmful bacteria. Because of this we use what is called 'sterile technique' to care for your tracheostomy tube.

Sterile technique is when all supplies have been sterilized to remove all germs. The supplies are sealed in packages to keep them from getting germs on them. We wear sterile gloves to protect you from any germs we could have on our hands. We follow a specific process to help prevent harmful germs from getting into your tracheostomy when we clean it.

At home, you are surrounded by your own 'normal' or community germs. Because of this, you do not need to use sterile technique. Instead, it is quite safe for you to just keep everything clean. We call this way of cleaning – 'clean technique'.

The keys to clean technique:

- Always wash your hands with soap and water for 45 seconds:
 - before and after caring for your tracheostomy and stoma
 - before and after suctioning
 - before and after changing your ties
- Use soap and water to scrub the equipment.
- Keep work surfaces clean. Remember, you will remove many but not all germs.
- Use gloves if you expect to contact blood or body fluids. Even if you choose to wear disposable gloves, always wash your hands.



Every morning and/or evening, we suggest you do all of these at the same time:

- Clean your inner cannula.
- Care for your stoma.

With practice, it will take less than 10 minutes.

A. Cleaning your tracheostomy tube and inner cannula

Once a day, clean the inner cannula of your tracheostomy tube. If needed, clean it more often to keep it clean and free of mucus.

Supplies for cleaning

- ☐ 2 stainless or glass containers - one for cleaning and one for rinsing
- ☐ Hydrogen peroxide
- ☐ Sterile water or sterile saline (salt water)
Can be made at home using the recipes on Page 46 or bought at a pharmacy
- ☐ Tracheostomy brush
- ☐ Disposable gloves



Steps for cleaning your tracheostomy tube and inner cannula

1. Clean your work area and set up your supplies.
2. Wash your hands for at least 45 seconds.
3. Pour ½ cup of sterile water/saline and ½ cup Hydrogen Peroxide into the one stainless/glass container.
4. Pour sterile water/saline into the other stainless/glass container.
5. Cough or suction if needed. This clears the airway of mucus.

6. Loosen the inner cannula. Hold the outer cannula with one hand. With the other hand, turn the inner cannula to your right to unlock.



7. Remove the inner cannula by steadily pulling it down and towards your chest until it is out. **



8. Place the inner cannula in the peroxide solution.

9. Use a tracheostomy brush to gently clean inside the inner cannula and remove mucous and dried mucus.



10. Once clean, place the inner cannula in the bowl of plain sterile water/saline. Rinse well.



11. Shake off any excess water.
Do not dry it with a cloth. Moisture makes the inner cannula easier to slide back in.

12. Put the inner cannula back in the tracheostomy tube, using an arching motion. Keep the curved portion facing downward.



13. Lock the inner cannula in place. It is locked when the blue dots line up.



14. Wash the containers well. Leave them to air dry in a clean place. If you used a tracheostomy brush, soak it in the peroxide solution, rinse with sterile water, and leave to dry. Throw away pipe cleaners.

15. Wash your hands for at least 45 seconds.

** After your first tracheostomy tube change, you will have a spare inner cannula. Once you remove your inner cannula (Step 7), put your spare inner cannula in right away (Steps 12 and 13). Clean the cannula you just took out (Steps 8 to 11). This one is now your spare inner cannula. Keep the spare cannula in a sealed container. Switch to the clean spare inner cannula each day.

B. Clearing mucus from your lungs

You must keep your airway clear of mucus.

You do this by:

- Keeping the air you breathe moist
- Keeping your mucus thin
- Coughing to clear mucus
- Suctioning when coughing is not enough to clear the mucus

Keeping air moist

Normally, the air we breathe is moistened by going through the nose and mouth. Since breathing through your tracheostomy bypasses your nose and mouth, air now has to be moistened another way.

- Keep the relative humidity of your home around 40 to 60%. To measure the humidity of your home, use a humidistat.
- Use a cool mist humidifier by your bedside at night.
- Use a Heat Moisture Exchanger or 'artificial nose'.
- Grow houseplants. They increase the humidity in the air.



Heat Moisture Exchanger

Keeping your mucus thin

When your mucus is thin, it is easier for you to cough it out and you won't need to suction yourself. Dry, unfiltered air going into your lungs can cause mucus to become thick and form plugs. Mucus plugs can block the smaller airways in your lungs, making it hard to breathe. Also, mucus plugs attract germs which can cause an infection. An infection produces more mucus.

- Drink 6 to 8 glasses of water each day, unless you have been told to limit the amount of fluid you drink.
- Keep your mouth moist. Rinse your mouth with water or salt water.
- Sleep in a cool room. Cool temperatures can keep airways open and moist.
- For thick secretions, give yourself a nebulizer treatment using sterile salt water 4 times a day (see the next page). If you have medication for breathing, it can be added to the water.
- Talk to your doctor about adding medication to the nebulizer treatment to help open up your airways.
- Ask your respiratory therapist about using a tracheostomy mask or 'T-piece' with a humidifier.

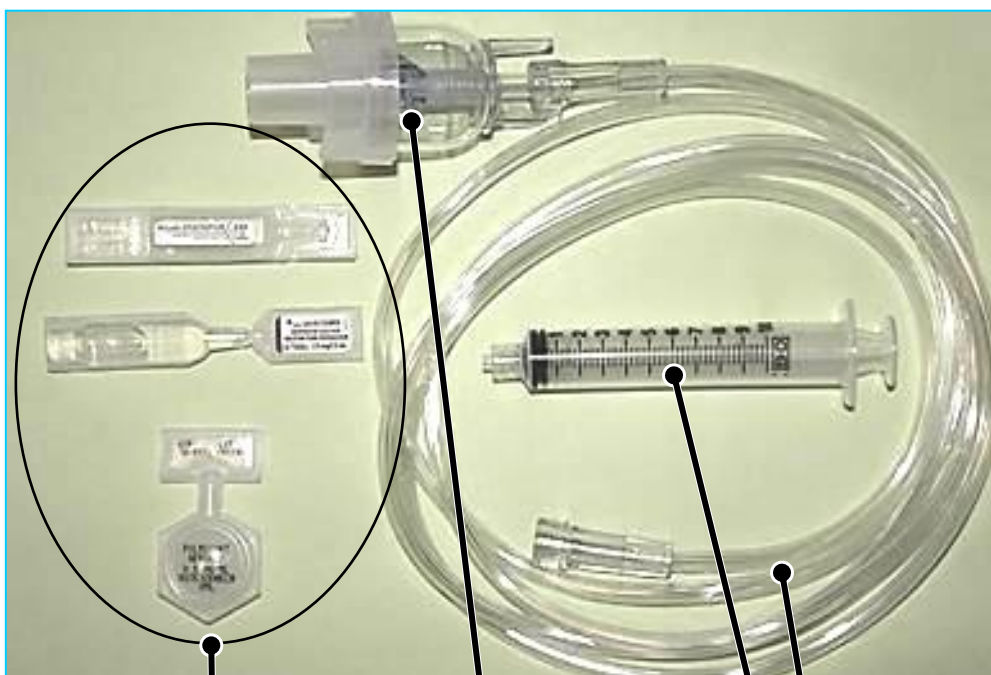
If you are still having mucus plugs after the doing the above steps, ask your respiratory therapist about putting a small amount of sterile salt water into your tracheostomy tube before suctioning (called 'instilling', Page 31).

Nebulizer treatment

A nebulizer produces a mist that you then breathe in. Medication can be added to the nebulizer.

Supplies for a nebulizer treatment

- ☐ 10 mL syringe
- ☐ Sterile saline
- ☐ Small volume nebulizer
- ☐ Oxygen tubing
- ☐ Nebulizer machine (compressor)
- ☐ Tracheostomy mask (when breathing through tracheostomy tube) or face mask (when your tracheostomy tube is corked)
- ☐ Breathing medication (if you use breathing medication)



Breathing Medications

Small Volume Nebulizer

Oxygen Tubing
10 mL Syringe



Face Mask



Tracheostomy Mask

Steps for a nebulizer treatment

1. Connect one end of the oxygen tubing to the small volume nebulizer.
2. Connect the other end of the oxygen tubing to the nebulizer machine.
3. Open the small volume nebulizer.
4. a) For a sterile water treatment:
 - Fill the 10 mL syringe with 5 mL of sterile water.
 - Empty the 5 mL of sterile water into the small volume nebulizer.
- b) For a breathing medication treatment:
 - Follow the steps for sterile water treatment.
 - Add the medication into the small volume nebulizer.
5. Close the small volume nebulizer.
6. Connect the small volume nebulizer to the:
 - **tracheostomy mask** if you are breathing through your tracheostomy tube
 - **face mask** if your tracheostomy tube is corked and you are breathing through your mouth and nose

7. Turn on the nebulizer machine.
8. Breathe in slow deep breaths through your mouth and out slowly through your nose. Once the small volume nebulizer is empty, the treatment is complete.
9. Turn off the nebulizer machine.
10. Wash the small volume nebulizer with soap and water.
11. Leave to air dry.

Coughing to clear mucus

If you can give a good strong cough, it is much better for you than suctioning.

1. Lean slightly forward.
2. Support yourself if you need to by leaning on a table or counter.
3. Cover your tracheostomy tube with a facial tissue.
4. Take in the biggest breath you can.
5. Cough into a tissue.

You might have to cough several times before you can cough all the mucus out of your airways.

If you find it hard to cough strong enough to clear your mucus, you might need to see a respiratory therapist or a physiotherapist.

A physiotherapist will assess your needs and teach you the best ways to manage your secretions. Therapy can include:

- Treatment on your chest to help move the mucus (chest percussion or chest vibration)
- Learning different positions to lay or sit in that use gravity to help the mucus clear out of your lungs.
- Learning how to do ‘pursed-lip breathing’ (where you learn to deep breathe, hold your breath for 5 to 10 seconds, and then breathe out through pursed-lips).
- Learning how to cough or ‘huff’ to help clear the mucus.
- Learning breathing techniques to remove mucus (called the ‘Active Cycle of Breathing’).

Suctioning - when coughing is not enough

If you are having trouble breathing and cannot cough out the mucus, you can suction yourself. Only suction yourself when you really need it. If you suction yourself often, it can irritate the walls of your airways.

Supplies for suctioning

- ☐ Suction machine
- ☐ Disposable or reusable suction catheters
(‘red rubber catheters’)
See the Tracheostomy Care Checklist (Page 49)
for the size you need.
- ☐ 2 stainless or glass containers
- one for cleaning and one for rinsing
- ☐ Sterile water
- ☐ Vinegar
- ☐ Mirror
- ☐ Disposable gloves
- ☐ A clean facecloth
(Keep one to use only for your tracheostomy care)

If your secretions are too thick to suction, try putting a small amount of sterile saline into your tracheostomy tube before suctioning called ‘instilling’ (Page 31).

To instill, you will also need:

- ☐ A 10 mL syringe
- ☐ Sterile saline

Steps for suctioning

1. Wash your hands for at least 45 seconds.
2. Put on a pair of clean disposable gloves.
3. Sit comfortably in front of a mirror.
4. Pour $\frac{1}{2}$ cup of sterile water into 1 container
5. Pour $\frac{1}{4}$ cup vinegar (to clean suction catheter) and 1 cup sterile water into the other container (to rinse and/or moisten suction catheter).
6. Turn on the suction machine.
7. Connect the 'red rubber catheter' to suction tubing.
If you are instilling sterile salt water, do it at this point.
(See the steps for instilling - Page 31).
8. To moisten the catheter, dip it into the container with sterile water.
9. Keeping your thumb off the side opening in the catheter, slowly insert the catheter into your tracheostomy tube as far as the respiratory therapist has shown you.
10. Cough. This helps loosen the mucus.
11. To suck out the mucus, place your thumb over the side opening in the catheter.



12. Slowly pull out the catheter, rotating the catheter as you pull it out.



Rotate the catheter as you pull it out

13. Take a moment to catch your breath.
14. Rinse catheter and suction tubing of mucus by sucking up some sterile water.
15. Suction again if you need to.
16. Once finished, clean the red rubber catheter (Page 31).
17. Wash the containers well.
Leave them to air dry in a clean place.
18. Wash your hands for at least 45 seconds.

Steps for instilling

1. Place the tip of the 10 mL syringe into the sterile salt water.
2. Pull back the plunger to the 3 to 5 mL mark to suck up the sterile salt water.
3. Place the tip of the syringe in the opening of your tracheostomy tube.
4. Slowly press the plunger to instill the sterile salt water down into your windpipe while you breathe in.
5. This might cause you to cough.
6. Suction.
7. Repeat these steps until you can breathe easily, can cough out the mucus, or can suction out the mucus.

To clean the red rubber catheters

1. Suck up sterile water to clean the inside of the catheter.
2. Wipe the outside of the catheter with a clean face cloth.
3. Soak the catheter in the vinegar and sterile water for 1 hour.
4. Rinse the catheter with sterile water.
5. Shake off any excess water. **Do not dry it with a cloth.**
6. Place catheter in clean container and cover with clean towel.
7. Replace the catheter with a new one every week.

To clean the Suction Tubing and Machine

Always rinse the tubing after each time you use it by sucking sterile water through it until it is free of mucus.

You must clean the suction machine regularly.



Once a day (or more often if needed)

- Empty the suction bottle.
- Clean the bottle with soap and water.

Once every other day

- Make a solution of vinegar and water in a clean container large enough to hold both the tubing and bottle (1 part vinegar to 4 parts water).
- Soak the suction tubing and suction bottle for 30 minutes.
- Rinse well with tap water.
- Let everything air dry.

Once a month

- Replace the suction tubing with new tubing.
- Throw out the used suction tubing in the regular garbage.

C. Care for your stoma

Once a day, clean the stoma and skin around the outer cannula. If needed, clean it more often to keep it clean and dry.

Tracheostomy dressings are not needed, but might prevent skin irritation and keep your clothing dry.

Supplies for cleaning

- ☐ A mirror
- ☐ Clean gauze
- ☐ Sterile water (sterile salt water if your skin is red or sore)
- ☐ Cotton tipped swabs
- ☐ Pre-cut tracheostomy dressings (if you are using them)
- ☐ Disposable gloves (if you want to use them)

Steps for cleaning around your stoma

1. Choose a comfortable position sitting in front of a mirror.
2. Remove the old dressing, if you have one.
3. Wash your hands for at least 45 seconds.
4. Wet the gauze with sterile water.
Gently clean the outer cannula, flange, and skin around it.



Caring for Your Tracheostomy Tube

5. Use cotton-tipped swabs for the 'hard to get' areas, such as under the flange.

To clean around the bottom part of the stoma, insert a clean swab (or gauze) between the skin and trach flange. Aim toward the middle of the cannula. Sweep to the left.

Do the same with a second clean swab (or gauze) and sweep to the right.

Now repeat these steps to clean around the top part of the stoma.

6. Look closely at your stoma site for signs of infection.
7. Use a cotton-tipped swab to put on ointment (if you are using ointment).
8. Put on a new pre-cut dressing. Insert the dressing below the flange so that the open end is up towards your head.



Call your doctor if you notice any of these signs of infection

- Red, inflamed skin around your stoma
- Bleeding of the skin around the stoma or from the stoma
- More mucus than normal
- Mucus changes colour, especially from clear to yellow, to green, or to brown
- Mucus has a bad smell
- Chills and a fever over 38.5°C (101.3°F), using an ear or mouth thermometer

D. Changing the tracheostomy ties

If you use cotton ties, remove and replace your tracheostomy ties every day.

If you have pre-made tracheostomy ties/holders, remove and replace the holders every 6 weeks.

No matter which type of ties you use, replace them more often if they become wet or dirty.

Supplies for changing ties

- ☐ Tracheostomy ties or pre-made holders
- ☐ Mirror
- ☐ Scissors
- ☐ Pre-cut tracheostomy dressing (if you use one)
- ☐ Someone to help you

Steps for changing the tracheostomy ties

1. Wash your hands for at least 45 seconds.
2. Measure a length of twill tie. Make it long enough to go around your neck 2 ½ times.
3. Cut both ends on an angle.
4. Remove your tracheostomy dressing, if you have one.
5. Have someone hold your tracheostomy by gently holding the bottom of the flange against your neck (It is possible to cough out the tracheostomy tube.)
6. Cut and remove the old tracheostomy ties.
7. Thread one end of the tie through the opening on the one side of the flange.
8. Pull the two ends of the tracheostomy tie together so the ends are even.
9. Wrap both tie ends around your neck.
10. Thread the end of the tie closest to your neck through the opening on the flange.
11. Adjust the fit of the ties by making sure you can fit 2 fingers in between the ties and your neck.
12. Tie both ends together on the side of your neck using a firm knot.

Do not tie a bow. It could come undone.

Tying on the side of the neck with space to fit 2 fingers between the ties and your neck



Steps for changing pre-made holders

1. Wash your hands for at least 45 seconds.
2. Remove your tracheostomy dressing, if you have one.
3. Have someone hold your tracheostomy by gently holding the bottom of the flange against your neck. (It is possible to cough out the tracheostomy tube.)
4. Remove the pre-made holder.
5. Thread the 'hook' end of the tie through the opening on one side of the flange.
6. Attach the 'hook' fastener to the fuzzy side of the holder.
7. Wrap the holder around the back of your neck.
8. Thread the other 'hook' end through the other opening in the flange and attach.
9. Adjust the fit of the holder so you can fit 2 fingers in between the holder and your neck.

Threading a pre-made tie through opening in flange



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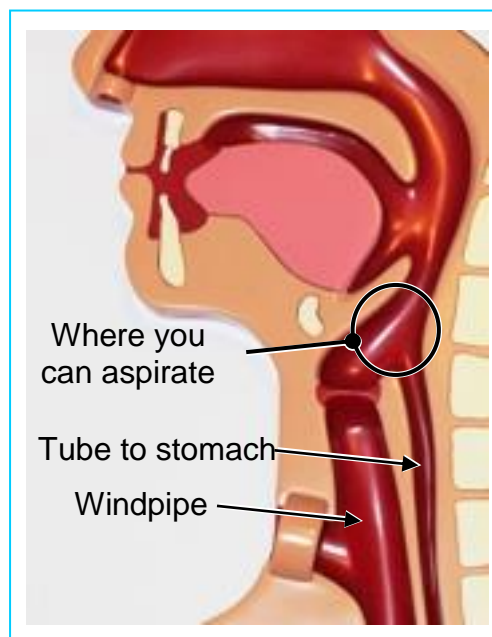
Swallowing and Speaking

Swallowing

You might find it hard to swallow food and liquids, especially at first. If your doctor says you can, you might want to take pain medication about 30 minutes before you eat. Do this only until the difficulty swallowing goes away. Talk to your doctor about what pain medication will work best for you.

Swallow carefully. It is possible for you to accidentally breathe in food or liquids, instead of them going into your stomach.

When this happens, it is called 'aspiration' (sounds like *ass-pier-aye-shun*)



Tips for swallowing

- Try not to eat tough fibre foods until you find swallowing easier. Tough fibre foods include tough meat, corn, nuts, popcorn, and fruit skins.
- Sit upright to eat.
- Eat slowly.
- Chew your food well.
- When you swallow, focus on your swallowing.

Contact your doctor right away if you notice food particles or coloured liquids (similar to what you have been drinking) when you cough or suction. It means you might have aspirated and could get an infection in your lungs.

Speaking

Normally, we speak by moving air through our vocal cords in our windpipe as we breathe out. Your tracheostomy is located below your vocal cords. Most of the air you breathe out goes through your tracheostomy. If your tube does not have a cuff, your cuff is deflated, or you have a fenestrated tube, some air can pass around your tube through your vocal cords. How much you can speak depends on how much air goes through your vocal cords.

We know speaking is important. There are a few ways to be able to speak again.

Examples include:

- Speaking around the tube (You must be taught how to do this safely.) When the tube does not have a cuff, when the cuff is deflated, or when the tube is fenestrated, you can take a deep breath, plug the tube, and try to speak while breathing out.
- Using a one-way speaking valve. The valve is placed on the end of your tracheostomy tube, allowing air in but not out. This forces air to go out around the tube and up through the vocal cords.
- Using a hand-held electronic speech device. The device is placed on the neck, vibrating when activated, allowing words to be mouthed.

A speech language pathologist works with you to determine which option is best for you. A speech language pathologist should come to see you before you leave the hospital. If you haven't had a visit yet, ask your doctor, nurse, or respiratory therapist to arrange for you to see one.

Emergency Situations

In this section, we identify the steps to take in different situations. Make sure everyone knows where you keep your supplies and equipment.

What if you are having hard time breathing?

There are several actions you can take. As you get to know yourself, you will know which works for you.

- Take a few deep breaths followed by a ‘huff’ or a really strong coughs to loosen up your mucus.
- Suction if coughing does not ease your breathing
- Replace your inner cannula with a clean one.
- Your mucus might be too thick to cough up or suction up. Try instilling sterile salt water into your tube to help loosen up these thick mucus (Page 31)

If you regularly have difficulty breathing, read the section on how to increase the moisture in the air and keep your mucus thin. (Pages 22 and 23)

Contact your doctor right away if your breathing does not get better with coughing, suctioning, or changing your inner cannula.

You might need medication (such as salbutamol or ipratropium bromide) to help relax the muscles in your airways to make it easier to breathe.

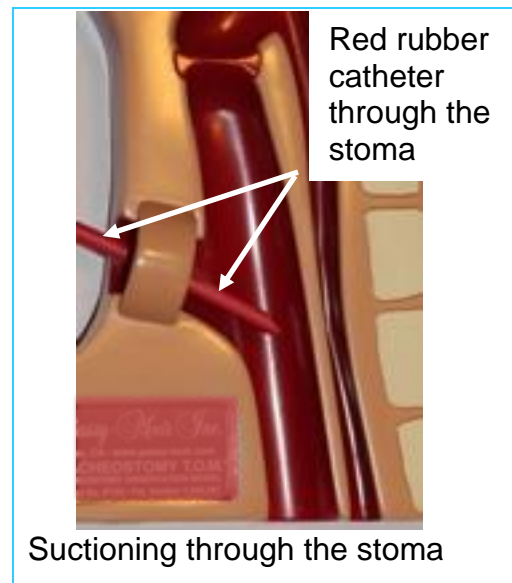
You might have an infection. Arrange to see your family doctor as soon as possible.

What if your tracheostomy tube gets plugged with mucus?

This can be very scary. Try to stay calm.

Follow these steps. If one action does not work, go to the next step.

- Try to cough really hard.
- Unlock the inner cannula and pull it out, replace inner cannula with a clean one.
- If this does not work then suction yourself.
- If you cannot get the suction catheter to go in the 4 to 5 inches, instill sterile salt water, and suction.
- If you are still having trouble breathing:
 - Cut the ties.
 - Take out your tracheostomy tube.
 - Cough hard.
 - Suction through the stoma.
- Call 9-1-1 right away if all of these actions fail to clear your airway.



What if your tracheostomy tube comes out of the stoma?

Once your tube has been in place for about 5 days, the hole is well formed and will not suddenly close.

If your tube is still tied around your neck:

1. Stay calm. Your stoma will stay open.
2. Slightly tilt your head back to make the stoma hole larger.
3. Cut the ties or undo one side of the pre-made holder.
4. Insert the tracheostomy tube back into the stoma. Use the same motion you use to insert your inner cannula.

Or have someone else who knows how to care for your tracheostomy tube try to put the tube back in place.

5. Hold the tube in place.
6. Get help to make and attach new ties.

If you cannot get the tube back in:

1. Have someone call 9-1-1 right away.
If you are alone, dial 9-1-1 using a landline.
Leave the phone off the hook.
2. Try to insert the small-sized tracheostomy tube (from your emergency bag) into your stoma.
3. If you cannot get any tracheostomy tube in, insert a red rubber suction catheter into your stoma.
4. Hold it in place. You can breathe through the catheter until emergency personnel arrive.

If your tube is not attached to your ties:

1. Stay calm. Your stoma will stay open.
2. Open your Emergency Supply Bag and get:
 - A new tracheostomy tube (one the same size and one a size smaller)
 - The obturator (from your last tracheostomy change, or from a new tracheostomy tube package)
 - Water-soluble lubricant
 - Tracheostomy tie or pre-made holder
3. Insert the obturator into the new tracheostomy tube.
4. Lubricate the end with the water-soluble lubricant.
5. Insert the new tracheostomy tube into the stoma, using the same arching motion as you would your inner cannula.
6. Pull the obturator out.
7. Insert the inner cannula and lock it in place.
8. Get help to make and attach new ties.



If you cannot get the tube back in:

1. Have someone call 9-1-1 right away.
 - If you are alone, dial 9-1-1 using a landline.
 - Leave the phone off the hook.
2. Try to insert the small-sized tracheostomy tube into your stoma.
3. If the tracheostomy tube will not go in, insert a red rubber suction catheter into your stoma.
4. Hold it in place. You can breathe through the catheter until emergency personnel arrive.

What if you get a chest infection?

When you have a tracheostomy, you have a greater chance of getting a chest infection which could lead to pneumonia.

You have a greater chance of an infection if:

- You accidentally breathing in liquid (aspirating).
- You cannot cough strong enough to remove mucus.
- You had a lung problem before your tracheostomy.

You could have a chest infection if you notice:

- You are coughing more than usual.
- You feel short of breath and it is either new for you or it is more than usual.
- You are breathing faster than you normally do when you are resting.
- Your heart is beating faster than it normally does when you are resting.
- You have more mucus than normal and have to clear your tube more often.
- Your mucus is yellow, green, brown, or has an odour.
- You have chills and a fever over 38.5°C (101.3°F), using an ear or mouth thermometer.
- The skin below your finger nails, the end of your nose, and/or around your mouth looks slightly blue.

A chest infection must be treated as soon as possible.

Contact your doctor right away.

Recipes

Recipe for Sterile Water

- Place distilled water in a clean pot.
- Boil the distilled water in a covered pot for 15 minutes.
- Let it cool in same pot.

This is to make sure the sterile water stays sterile and free from bacteria.

Recipe for Sterile Salt Water (Saline)

- Pour 4 cups of distilled water into a clean pot.
- Boil the distilled water in a covered pot for 15 minutes.
- While the distilled water is coming to a boil, boil some water in a kettle.
- Add 1 ½ teaspoons of salt to the now sterile water in the pot.
- Pour some boiling water from the kettle over a spoon.
- Use the spoon to stir and dissolve the salt in the sterile water.
- Let it cool in same pot.

This is to make sure the sterile water stays sterile and free from bacteria.

Storing Sterile Water and Sterile Salt Water

- Place clean glass jars (like those used for canning) and their tops in a large clean pot.
- Cover the jars with water.
- Heat water to boiling.
- Set the ends of a pair of tongs into the water.
- Boil for 15 minutes.
- Using the pair of now sterile tongs, carefully remove jars from water. Pour out any water in the jars
- Place the jars right side up on a clean towel to cool.
- Set the tong ends back in the sterile water.
- Leave the lids in the boiled water until you are ready to close the jars.
- Carefully pour the sterile water or sterile salt water into jar.
- Use the tongs to remove the jar lids from the boiled water and place on the jars.
- Tighten the lids.

Sterile water and sterile salt water can be stored in refrigerator for up to 3 days. Throw out any unused water at the end of 3 days and make a new batch.

Suggested Medical Supply Stores

MedPro Respiratory

Unit #1, 20133 - 102 Avenue
Langley, B.C. V1M 4B4
Telephone: 604-526-0208
Fax: 604-521-9286

Regency Medical

4437 Canada Way
Burnaby, B.C. V5G 1J3
Telephone: 604-434-1383
Fax: 604-435-8150

VitalAire Healthcare

Unit #201 9087B - 198 Street
Langley, B.C. V1M 3B1
Telephone: 1-800-637-0202
Fax: 1-866-812-0202

Westcare Medical

Unit #108, 17 Fawcett Road
Coquitlam B.C. V3K 6V2
Telephone: 604-540-8288
Fax: 604-540-8245

Tracheostomy Care Checklist

Tracheostomy type and size: _____

Suction catheter size:
(red rubber catheter) _____

Every morning or evening

- Clean the inner cannula.
- Clean the stoma and skin around outer cannula.
- Change your cotton tracheostomy ties.

At least once a day

- Empty the suction bottle (if used).
- Do your deep breathing and coughing exercises (at least for the first month at home).

At least once every other day

- Soak the suction tubing and bottle in a vinegar solution.

At least once a month

- Replace the suction tubing with new tubing.

Every 6 weeks

- Change your pre-made tracheostomy ties.
- Make an appointment to get tube changed.

Important Phone Numbers

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This information does not replace the advice given to you by your healthcare provider.

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