

# Caring for a Tracheostomy

## A Patient and Caregiver Guide



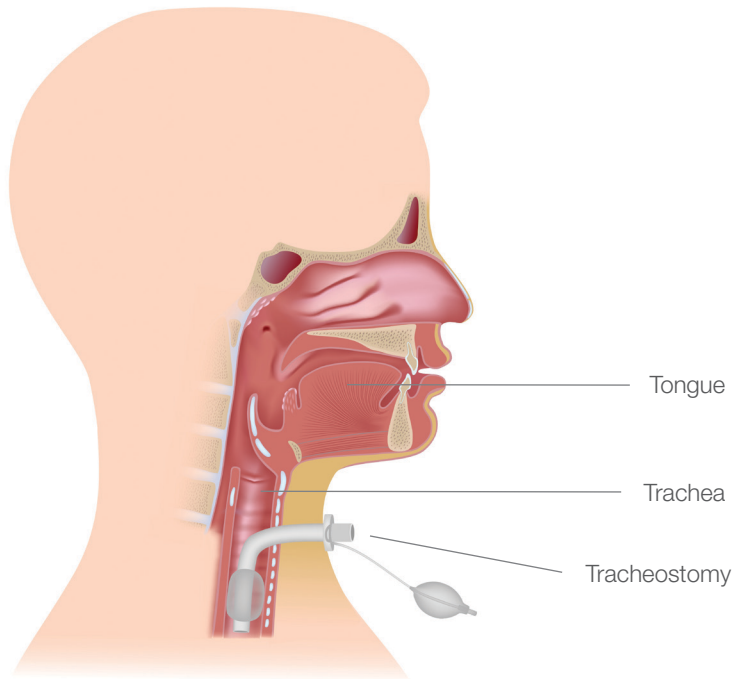
The Respiratory Medicine Service provides inpatient and outpatient care on acute and chronic respiratory diseases.

Apart from treating conditions, we also provide diagnostic services in the form of pulmonary function tests, bronchoprovocation tests, methacholine challenge test, cardiopulmonary exercise testing, sleep study, flexible bronchoscopy and thoracocentesis and pleural biopsy. Therapeutic services in the form of intensive care, non-invasive ventilation, vaccination (pneumococcal and influenza), smoking cessation, chest tube insertion and pleurodesis are also offered to patients.

Our multi-disciplinary care team comprises of Sleep and Respiratory Medicine specialist physician, Ear, Nose & Throat (ENT) surgeon, Dental specialist, CPAP counsellor, psychologist, dietitian, case manager and Sleep Laboratory technician to provide holistic and continuous care to patients with sleep-related disorders.

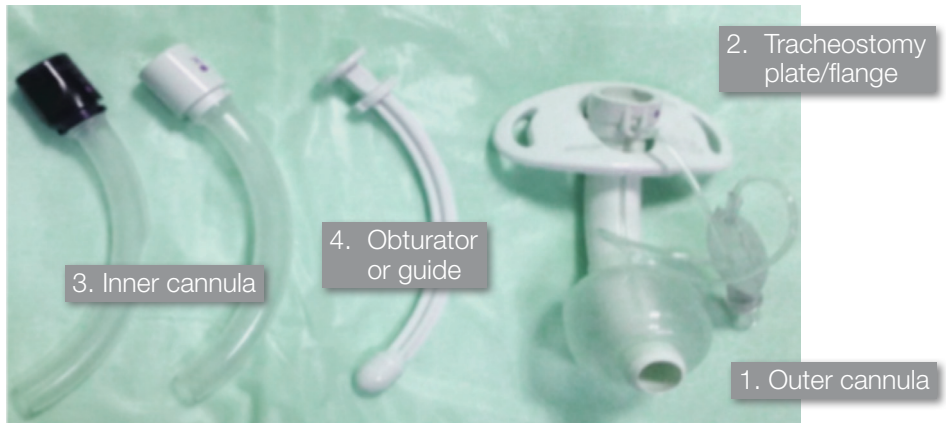
# What is a tracheostomy?

A tracheostomy is an opening made at the trachea or windpipe to help an individual breathe better. The opening is known as a “stoma” and a tube (tracheostomy or trach tube) is placed into this opening. A tracheostomy tube helps an individual to breathe into the windpipe directly instead of through the mouth and nose.



# The tracheostomy tube

The different parts of a tracheostomy tube include:



The outer cannula (1) fits into the trachea to maintain the opening as you heal. The tracheostomy plate (2) is a flat plastic hinge attached to the outer cannula with holes on either side that you can tie around your neck to prevent the tube from falling out.

The inner cannula (3) locks the outer cannula, but can be removed for cleaning. Cleaning the inner cannula helps to remove the mucus from your airway.

You may have more than one inner cannula. Please check with a healthcare staff if you are unsure what you should be using.

The obturator (4) is used when a new tracheostomy tube is used. It acts as a guide when the outer cannula is inserted into the trachea and reduces irritation to the trachea wall.

# Caring for your tracheostomy tube

## Cleaning the inner cannula

If your tracheostomy tube has an inner cannula, it is important to remove and clean it at least once every six hours, or as needed.

### You will need:

- A packet of gauze
- Cooled boiled water
- Disposable plastic gloves (a few pairs)
- Mirror (optional if you are cleaning your own)
- Waste bag

**1** Wash your hands with soap and water.



**2** Put on a clean pair of disposable plastic gloves.



**3** Twist the inner cannula in an anti-clockwise direction to unlock as you hold onto the plate.



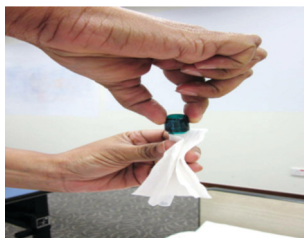
**4** Gently pull out and in a downward direction to remove the inner cannula.



- 5** Rinse the inner cannula with cooled boiled water.



- 6** Dry the inner cannula with sterile gauze.



- 7** Insert a clean inner cannula into the tracheostomy tube in a clockwise direction until the two blue dots line up.



- 8** Dispose used items in a waste bag and wash your hands.



**CAUTION:**

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If you are unable to remove the inner cannula, please contact a ward nurse or GP immediately.

## Changing your dressing

You will need a cup of cooled boiled water or 20ml of normal saline 0.9% ampoule and the following:



Tracheostomy tube holder  
(Velcro strap)



Clean plate/bowl



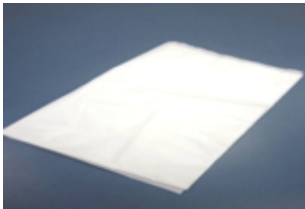
Cotton swabs



1-inch micropore tape



Packet of gauze



Waste bag



Disposal plastic gloves

## Procedure

- 1 Wipe and clean the surface of the table with soap and water. Get ready the items from the earlier page.



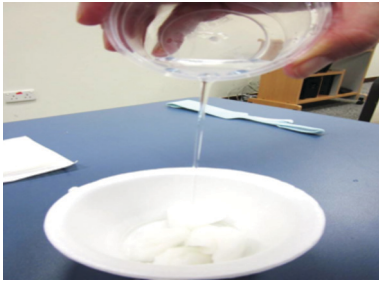
- 2 Wash your hands with soap and water.



- 3 Open and drop the cotton swabs into the plate/bowl.



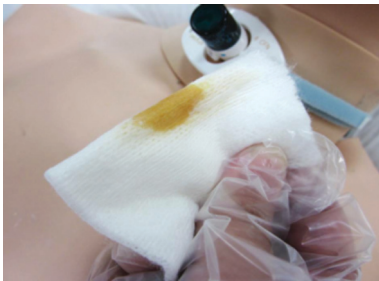
- 4** Pour normal saline 0.9% solution or cooled boiled water onto the cotton swabs.



- 5** Remove your 'old' dressing.



- 6** Observe the tracheostoma site for any redness or discharges/ signs of swelling or bleeding. Contact us if you do.



- 7** Put on a new pair of gloves.



- 8** Squeeze and flatten the cotton swabs.



- 9** Clean the tracheostoma with the cotton swabs.



- 10** Clean the plate of the tracheostomy tube.



- 11** Dry the tracheostoma site with a gauze.



- 12** Fold the gauze into half.



- 13** Place the folded gauze at the tracheostoma site.



- 14** Secure the folded gauze with micropore tape.



## Changing the tracheostomy ties

- 1 Thread the clean velcro through and into the plate of the tracheostomy tube.



- 2 Allow a finger spacing between your neck and the strap before securing the strap.



- 3 Remove soiled or dirty velcro.



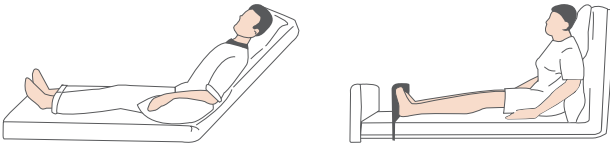
## Clearing secretions from your lungs

Suctioning can remove the secretions or mucus from your tracheostomy tube and maintain an open airway. Use the suction only when necessary. Please ensure that you (or your caregiver) know how to use the suction machine.

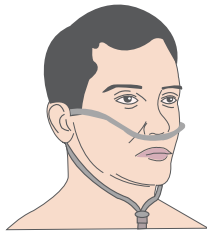
# When do I use the suction?

- You feel a build-up of secretions that cannot be removed by coughing
- You experience breathlessness

## Preparation



Position yourself in a comfortable position

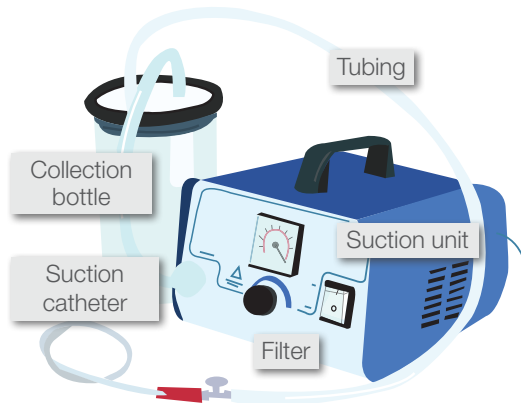


Supplementary oxygen (if prescribed by your doctor)

## Other Equipment

- a) Suction catheter
- b) Water container
- c) Disposable plastic gloves

## Home suction kit



## Procedure



- Wash your hands and put on a pair of clean, disposable gloves.



- Pull a short length of catheter out of the packet and attach it to the suction tubing. Adjust the suction pressure to 100-120mmHg.



- Insert the catheter into the tracheostomy tube gently about four inches until you feel some resistance, or until the patient coughs.



- Apply suction as you withdraw the catheter. DO NOT suction for more than 10 seconds at a time.
- Get the patient to cough. If it still sounds moist, continue the suctioning.
- Wrap the catheter in its wrapper and discard after use.
- Wash your hands.

## Speaking or communicating with the tracheostomy tube

Speech is an important part of us and it is produced when air moves through the vocal chords in our windpipe as we breathe in/out. Your tracheostomy is located below the vocal chords. Some air may pass through the tracheostomy tube and your vocal chords. How much you can speak depends on how much air reaches your vocal chords.

## Communicating verbally

(Requires training from a speech therapist)

|                                           |                                                                                                                                                                      |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Finger occlusion</b>                   | Take a deep breath and plug your tracheostomy tube as you attempt to speak while you breathe out. If your tracheostomy tube has a cuff, deflate it before you speak. |
| <b>Fenestrated tracheostomy tube</b>      | A tracheostomy tube that has an additional hole to allow more air to pass through your vocal chords.                                                                 |
| <b>Electrolarynx or artificial larynx</b> | A hand-held electronic speech device placed on the neck that vibrates when activated or when you speak.                                                              |
| <b>Talking tracheostomy tube</b>          | Speech is obtained through a line tubing directly above the cuff. An outside air source forces air through the vocal chords in this method.                          |
| <b>Speaking valve</b>                     | A one-way valve that allows air in but not out. It is placed on the end of your tracheostomy tube.                                                                   |

A speaking valve should be removed:

- If you cannot breathe
- When you are asleep (unless otherwise advised by your speech therapist)

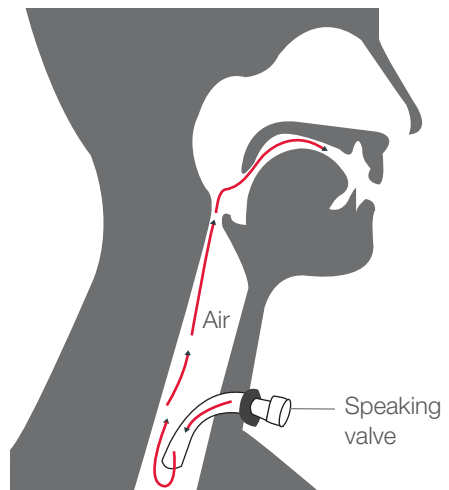
Clean the speaking valve with mild soapy water and rinse thoroughly with sterile water. Allow it to dry naturally.

Do not discard it even when you change the tracheostomy tube.

## How do I put on a speaking valve?

Deflate the cuff on your tracheostomy tube and place the speaking valve as shown in the image. Ensure fenestrated inner cannula is used when using the speaking valve.

If you feel short of breath or uncomfortable, remove the speaking valve and consult your speech therapist.



## Communicating non-verbally

These include:

- Using technology to spell words quickly (e.g. through the iPhone/iPad apps)
- Technological devices to store relevant pictures in an iPhone or iPad to communicate with a person with aphasia
- Spelling out with a pen and paper, or with an alphabet board
- Using a picture communication board to allow a person with aphasia to point to relevant pictures

Such methods of communication are tailored specifically to individual patients. Your speech therapist will explore options with you to determine the best method.

# Eating and drinking with a tracheostomy tube

People with tracheostomies may sometimes develop dysphagia. Dysphagia is a swallowing difficulty that is caused by stroke, progressive neurological diseases (e.g. dementia and Parkinson's disease), head and neck cancer and respiratory disease (e.g. chronic obstructive pulmonary disease).

It can also cause chest infections and pneumonia if food and/or drink enters the trachea (windpipe) and causes an aspiration. Dysphagia may cause dehydration, malnutrition, depression and a deterioration to one's quality of life.

## Safe eating tips

- Sit upright to eat
- Eat slowly
- Chew your food well
- Focus on your swallowing. Take the next spoonful only after you have swallowed
- Do not talk and eat at the same time
- Ensure liquids do not dribble down your chin/neck towards the tracheostomy tube
- Stop feeding if you feel short of breath or any breathing discomfort
- Remain seated for about 30 minutes after a meal



If you experience problems, avoid food with seeds and ground meats like a hamburger. Remember that liquids are harder to swallow than food in gel form.

## NOTE:

- Discontinue feeding if cough worsens during meal times. Alert your speech therapist
- If traces of food or liquids are found in your cough secretions, inform your doctor immediately
- Do not ignore dysphagia! The correct swallowing technique will allow you to enjoy oral feeding without affecting your pulmonary health

# Modifying daily activities

*(Tips for everyday living)*



## DOS

- Use a humidifier to moisten the air around you. Keep your humidifier clean
- Eat a balanced diet and drink plenty of fluids. Drink eight cups of water a day unless your doctor informs you otherwise. Get plenty of rest and stay away from people who have a cold or flu
- Protect your stoma from extreme temperatures (e.g. very hot or freezing) and heavy pollution. Use a dressing, crocheted bib or clothing to protect your stoma. Make sure you can breathe through this covering. You can buy stoma coverings at medical supply stores
- In the shower, keep your showerhead low or wear a special shower shield to prevent water from entering your lungs. Protective shower guards can be purchased at medical supply stores
- Do not let anything enter your new airway. These include cotton swabs, tissues, shaving cream, hair, powders, and aerosols. When you are outdoors, take care not to let insects, leaves, and other things enter your tracheostomy tube
- Pay special attention to your nose and mouth. Good oral hygiene can help to stimulate better taste buds
- Pay attention to the type and amount of mucus coming through your stoma. Report any changes to your doctor
- Inform your doctor of any medications you are taking. Some drugs may dry the secretions
- Men need to be careful when they shave as hair clippings can enter the stoma site



## **DON'TS**

- Avoid dusty or smoky places
- Do not do vigorous exercises that involve the neck
- Do not shower without a shield/bib
- Do not swim

## **When to see the doctor**

- Your mucus increases
- The colour of your mucus changes
- Your mucus becomes thicker
- You have a fever of 38°C or higher
- You cannot breathe
- Your secretions are bloody
- Swelling/bleeding/redness of the stoma site

If your tracheostomy tube dislocates or gets blocked, please dial 995 for an ambulance or visit the nearest Emergency Department.

## **Tips to unblock the tracheostomy tube:**

- Remove the inner cannula
- Check the cannula for secretions or crust. Rinse off any crust or secretions with cool water or with a brush
- Remove the plug by suctioning
- If this does not work, proceed to the nearest Emergency Department or dial 995 for an ambulance
- Attempt to unblock the tube by coughing if possible

# Returning home

Ensure you have these items before your discharge.

- Brand: \_\_\_\_\_  
Size: \_\_\_\_\_
- Cuffed OR Cuffless  
\_\_\_\_\_
- Fenestrated OR Non-fenestrated  
\_\_\_\_\_
- Suction catheters: Size \_\_\_\_\_
- Suction machine with extension tubing arranged
- Normal saline or sterile water (optional)
- Tracheostomy pipe cleaners/brush
- Oxygen (optional)
- Tracheostomy ties
- Disposable gloves
- 4 inch x 4 inch gauze dressings (NO cotton fillers)
- Humidifier (optional)
- Speaking valve or communication aid



## For more information

### Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

General enquiries: 6716 2000 Fax: 6716 5500

[www.juronghealth.com.sg](http://www.juronghealth.com.sg)

### Clinical and appointment line hours (closed on Sundays and public holidays)

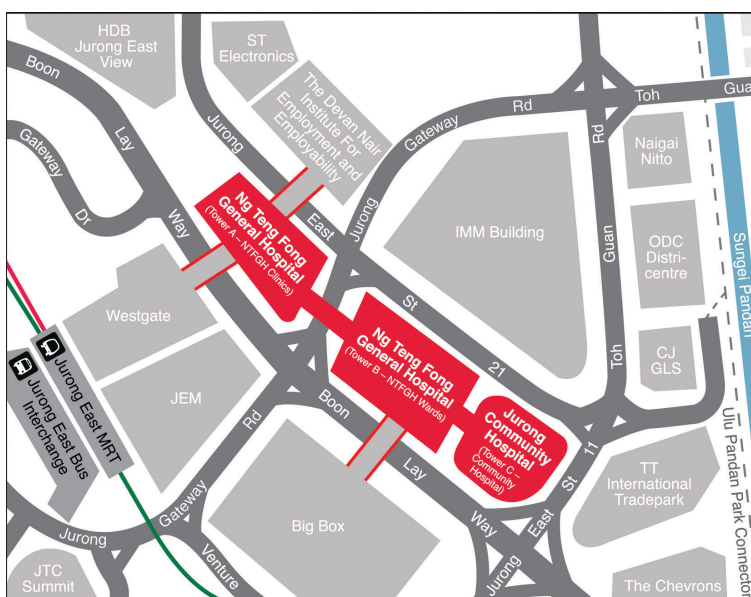
For appointments, please call 6716 2222

Monday - Friday 8.00am - 5.30pm, Saturday 8.00am - 12.30pm

For dental appointments, please call 6716 2233

Monday - Thursday 8.00am - 5.30pm, Friday 8.00am - 5.00pm

## Getting there



### By train

Jurong East MRT Station

### By bus

#### From Jurong East Bus Interchange

SBS 51, 52, 66, 78, 79, 97, 97e, 98, 98M, 105, 143, 143M, 160, 183, 197, 333, 334, 335, 506

#### Along Boon Lay Way

SBS 99, Private bus service 625

### Disclaimer:

The information in this brochure is meant for educational purposes and should not be used as substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition.