HUNTER NEW ENGLAND
NSW HEALTH

TRACHEOSTOMY CARE

A
SELF-DIRECTED LEARNING PACKAGE

DEVELOPED 2006
(Gai Shylan - ENT CNC)

REVIEWED 2009
John Hunter Hospital Tracheostomy Team

CONTENTS

Page:

HISTORY OF TRACHEOSTOMY

The tracheostomy- a medical procedure in which a tube is inserted through an incision in the windpipe to create an airway-has been performed by physicians for over 5,000 years. When done properly, it can save lives; yet the medical community did not readily accept the tracheostomy.

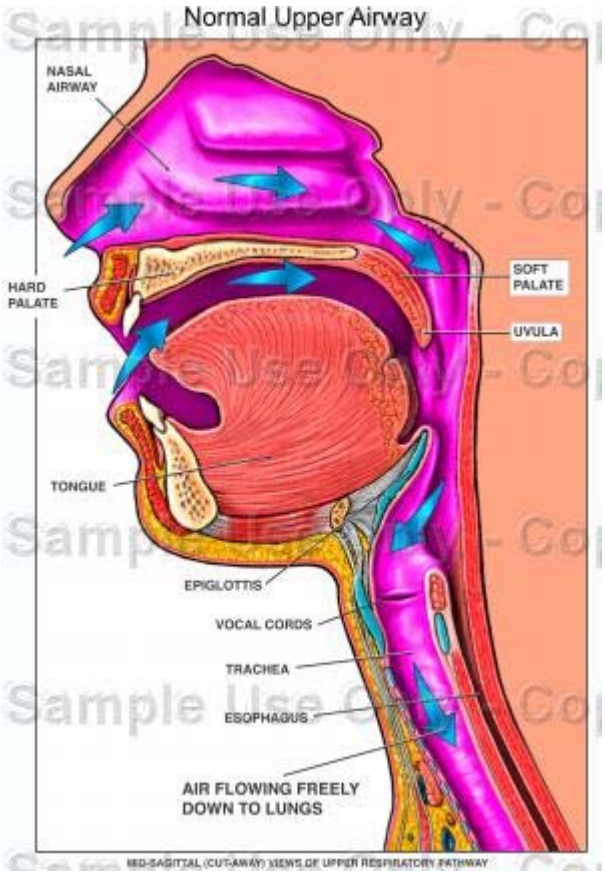
The tracheostomy began as an emergency procedure, used to create an open airway for someone struggling for air. For most of its history, the tracheostomy was performed only as a last resort & mortality rates were very high. Only in the past century has the tracheostomy evolved into a safe & routine medical procedure.

One famous American whose life could have been saved by a tracheostomy was President George Washington. At the end of the 18th century, however, the procedure was still considered too risky. In December of 1799, Washington lay in his bed at Mount Vernon, Virginia, suffering from a septic throat & struggling for air. The youngest of his three doctors, Elisha C.Dick, recommended that a tracheostomy be performed to create an unobstructed airway. The other two physicians vetoed him; they preferred more traditional methods like bleeding. Washington died that night.

In the twentieth century, Chevalier Q. Jackson's (1865-1958) work greatly decreased the dangers associated with the tracheostomy & other developments in medicine reduced the need for the procedure. The development of an antiserum in 1893 decreased the occurrence of diphtheria, which caused a swelling of the throat. After 1913 it was no longer considered a serious threat. Sulfonamides also aided in the treatment of upper respiratory infections. Tracheostomies did regain popularity in the twentieth century as a treatment for respiratory obstruction caused by poliomyelitis, but this was eliminated by Jonas Salk's polio vaccine.

ANATOMY & FUNCTION OF THE UPPER RESPIRATORY TRACT

The major passages & structures of the upper respiratory tract include the nose or nostrils, nasal cavity, mouth, throat (pharynx) & voice box (larynx).



When we breathe in through our nose or mouth, the air is "filtered" through natural lines of defence that protect against illness & irritation of the respiratory tract. Nasal hairs (vibrissae) at the opening of the nostrils trap large particles of dust that may otherwise be inhaled. The entire respiratory system is lined with a mucous membrane that secretes mucous. The mucous traps smaller particles, such as pollen or smoke. Hair like structures called cilia line the mucous membrane & move the particles trapped in the mucous out of the nose.

Inhaled air is moistened, warmed & cleansed by the nasal epithelium (the tissue that lines the nasal cavity), which covers the turbinate bones (conchae) in the nasal cavity. The nasal epithelium has increased blood flow that helps to warm the inhaled air, but also facilitates nosebleeds in some people.

The pharynx is a muscular, funnel shaped tube about 5 inches long that connects the nasal & oral cavities to the larynx. The pharynx houses the tonsils & adenoids, which are lymphatic tissues that guard against infection by releasing white blood cells.

The larynx forms the entrance to the lower respiratory system. With the help of the epiglottis (a leaf shaped flap), the larynx prevents food or liquid from entering the lower respiratory tract while swallowing. Two pairs of strong connective tissue bands that are stretched across the larynx vibrate to produce sounds while talking & singing.

INDICATIONS FOR TRACHEOSTOMY

To bypass possible or actual mechanical obstructions, including:

- Tumours
- Congenital abnormalities
- Inflammation
- Trauma – accidental or surgical
- Foreign bodies
- Vocal cord paralysis

To aid prolonged & assisted ventilation due to:

- Coma
- Neuromuscular diseases
- Chronic obstructive pulmonary disease (COPD)
- Multiple injuries/trauma.

TRACHEOSTOMY TECHNIQUES

There are two techniques used for the formation of a tracheostomy, percutaneous & surgical:

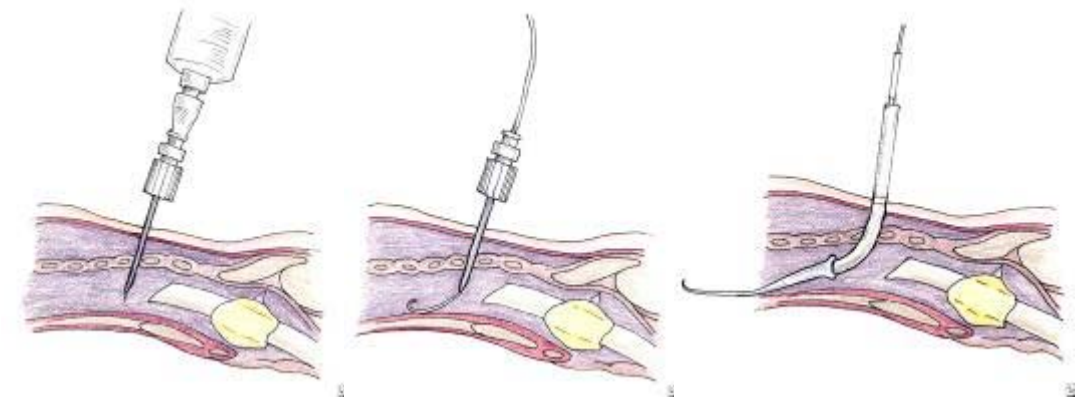
1. **PERCUTANEOUS**:

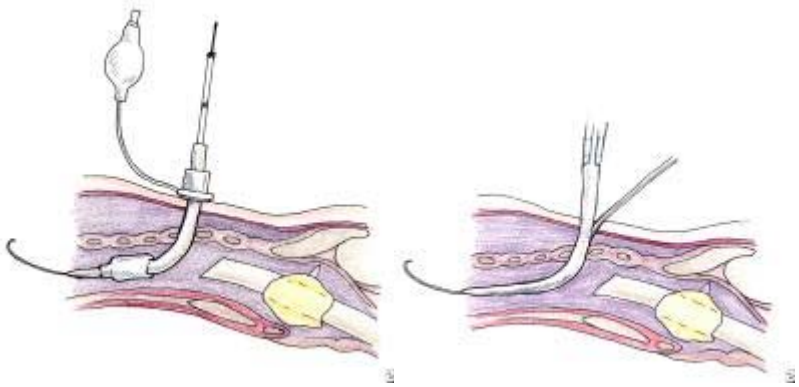
Percutaneous tracheostomy is a minimally invasive alternative to conventional tracheostomy & was first described by Toye & Weinstein in1969.
Percutaneous tracheostomy can be performed by an anaesthetist at the bedside in a controlled environment, such as I.C.U, with the assistance of nursing staff, without the need to transfer the critically patient to the operating theatre.

Technique:

The neck is extended. The thyroid cartilage, cricoid cartilage & 1st 3 tracheal rings are palpated. Cuff of existing tracheal tube is deflated & tube withdrawn under direct laryngoscopy until cuff seen in larynx, and then reinflated, allowing unimpeded passage of guide wire & dilators into the trachea. Bronchoscope may be positioned in endotracheal tube to observe point of entry. A horizontal incision is made at site & blunt dissection carried out with forceps .A needle & cannula is now introduced into midline, either between the 1st & 2nd or 2nd & 3rd tracheal rings until position of needle tip is confirmed by the aspiration of air.

A J-tipped flexible guidewire is threaded through the cannula into the trachea; the stoma is then dilated, using a series of curved tapered dilators starting with the smallest dilator. Trachea is dilated gradually, up to 2 sizes above dilator that fits tracheostomy tube. Now the tracheostomy tube is slid over the snugly fitted dilator. Then dilator, guidewire & guiding catheter are removed leaving the tracheostomy tube in place. Satisfaction is verified by auscultation of the chest.





Complications of percutaneous tracheostomy:

Complications of this technique are uncommon but may include:

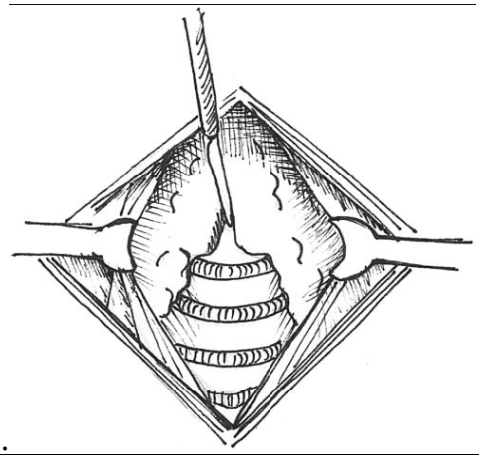
- False passage of tracheostomy tube.
- Pneumothorax.
- Delayed bleeding.
- Puncture of the posterior tracheal wall.
- Premature extubation during the procedure & loss of airway.

2. **SURGICAL**:

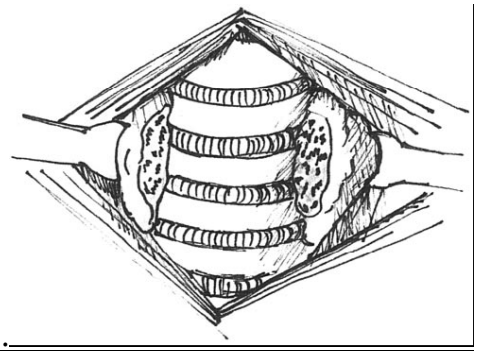
The surgical tracheostomy is usually performed in the operating room, under general anaesthetic, as an elective procedure for either long-term ventilation or for airway protection prior to oral, facial or head & neck surgery.

Technique:

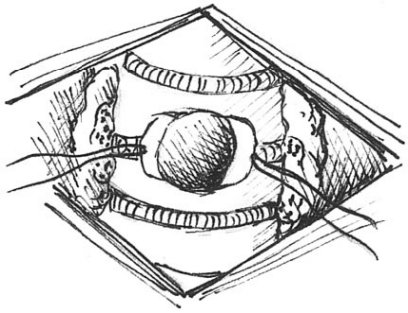
With the patient positioned with the neck hyper extended, the skin area is prepared & an incision is made below the cricoid cartilage. The trachea is located with blunt dissection, bleeding is controlled as necessary, & an incision (one of many types) is made through the 2nd, 3rd or 4th tracheal cartilage. A cuffed tracheostomy tube is inserted through the anterior wall of the trachea as the endotracheal tube is slid above the ostomy site. The tracheostomy tube is gently positioned & ventilation is confirmed through the tube. The tube is then secured & the skin incision loosely sutured or left open.



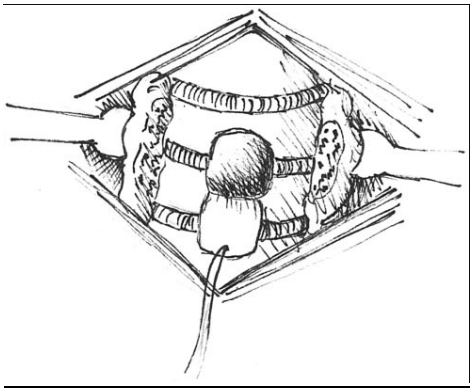
1.



2.



3.



4.

Surgical Complications:

- Bleeding from the operative site.
- Subcutaneous emphysema, mediastinal emphysema & pneumothorax.
- Aspiration of blood in the airway.
- Cardiac arrest secondary to hypoxia, acidosis or sudden electrolyte shifts.

Advantages of percutaneous tracheostomy over surgical tracheostomy:

- It is a relatively simple technique suitable for trained staff in the critical care setting.

- It does not require an operating theatre & the procedure is usually performed under local anaesthetic, sedation & neuromuscular blockade as appropriate.

- Forms a stoma between tracheal rings, resulting in reduced blood loss as there is usually no disruption of blood vessels. The tube is fitted snugly in the stoma thereby minimising any tendency to bleeding after the procedure.

- Infection rates range from 0 to 3.3%, whereas, those for open tracheostomy have been reported as high as 36%

- Stenosis rates range from 0 to 9%. The reported incidence of late complications resulting from open tracheostomy such as tracheal stenosis, tracheomalacia, fistula & scarring varies widely.

- Small & neat stoma of dilatational tracheostomy generally results in a more cosmetic scar.

TYPES OF TRACHEOSTOMY TUBES:

1. **CUFFED**:

Indications for cuffed tubes include:

- To prevent aspiration of blood or serous fluid immediately post-operatively.
- To seal the trachea during mechanical ventilation.
- To prevent aspiration due to laryngeal incompetence.

An inflated cuff permits ventilation by providing a seal in the trachea. All airflow will be via the tracheostomy tube, bypassing the upper airway. Care must be taken not to over inflate the cuff. High volume, low-pressure cuffs (Portex) will minimise trauma to the trachea.

Patients with impaired swallowing are at high risk of aspiration. A tracheostomy tube with a cuff reduces the likelihood of any aspirate entering the lungs. However, inflated cuffs may impair swallowing because the cuff may press against the oesophagus. The cuff also reduces laryngeal elevation & anchors the larynx.

The cuff must be deflated for 10 minutes per shift to prevent tracheal damage.

Patients can be extremely sensitive to changes in cuff pressure. A little coughing is not unusual during procedure. Take care to explain the procedure to the patient & inflate/deflate the cuff slowly.

Speaking valves are NOT to be used with a cuffed tracheostomy tube!
Unless directed by the tracheostomy team

TO DEFLATE CUFF:

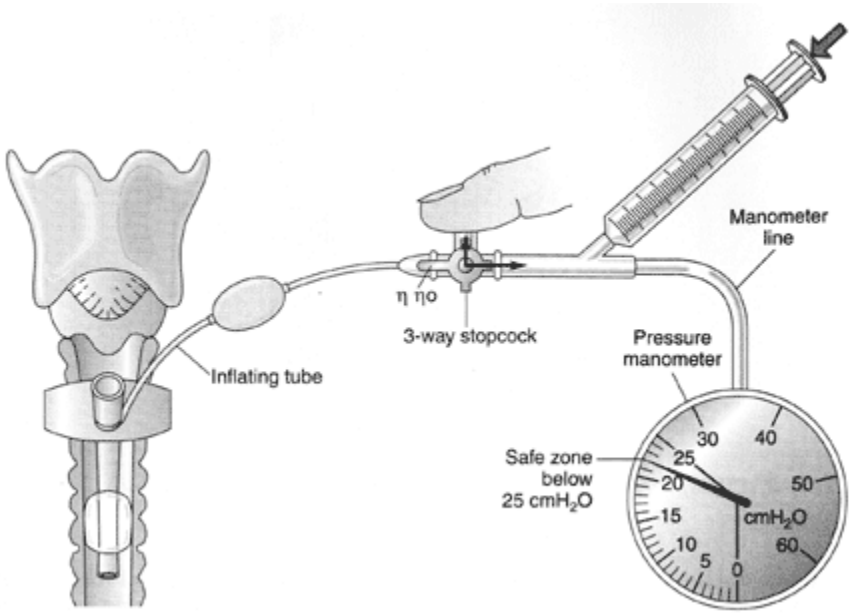
- 2 nurses are required to deflate the cuff. The first, using a syringe, slowly aspirate air from the air inlet port. The second nurse is to suction, to prevent aspiration of any secretions that may have pooled above the cuff.

- Once deflated, expiratory noises may be heard as air passes up around the tube. Reassure the patient that these are normal & will settle.

- To reinflate the cuff, gently replace the same amount of air that was withdrawn when deflating the cuff using a 10ml syringe.

- Check the inflated cuff pressure by attaching manometer to inflation port. If cuff is over inflated i.e.: measures more than 25cm H2O gently deflate cuff. If needed, air may be released by pressing the button, until the lowest possible cuff pressure is reached.

It is important that the intra-cuff pressure in the expiratory phase is below 25cm H20



2. **UNCUFFED, UNFENESTRATED TRACHEOSTOMY TUBES**:

An uncuffed tube may be selected when ventilation is no longer required or the patient is no longer at risk of aspiration.

3. **FENESTRATED TRACHEOSTOMY TUBES**:

A fenestrated tube allows air to flow through the tube as well as around the tube to the larynx & oro-pharynx. This may be used as an aid to weaning or vocalisation. All Portex fenestrated tubes come with a fenestrated inner cannula (RED) & a non-fenestrated (CLEAR). Care must be taken to remove the RED inner cannula & replace with the CLEAR inner cannula prior to suctioning to prevent the suction catheter becoming caught in the fenestrations, otherwise the fenestrated inner cannula is to be left in place at all times.

Speaking valves may be used safely with a fenestrated tube.

4. **LONGSHANK TRACHEOSTOMY TUBES**:
…or Extra Horizontal Length Tracheostomy Tubes:

These tubes are designed for the patient with a "bull neck". The adjustable flange & extra length on the horizontal axis allows airway accessibility in the anatomically large patient. The tube also features a radiopaque line to facilitate confirmation of proper placement.
These tubes **DO NOT** have an inner cannula…therefore extra care must be taken to prevent the formation of mucous plugs, which can be potentially life threatening. Patients should be adequately humidified to minimise encrustation of the tracheostomy tube lumen & prevent mucosal damage. The patency of the lumen **MUST** be assured by regular suctioning.

5. **<u>SHILEY TRACHEOSTOMY TUBES</u>**:

John Hunter Hospital uses Portex (brand) adult tracheostomy tubes….however, Shiley (brand) tracheostomy tubes are used in other areas. The tubes look slightly different, however the principles of care are the same.

Shiley disposable inner cannulas 'clip' lock into position

Shiley permanent inner cannulas 'twist' lock into position

NURSING CARE OF THE TRACHEOSTOMISED PATIENT

1. **HUMIDIFICATION**:

The nasopharynx provides a natural humidification mechanism during respiration. This has been bypassed when a tracheostomy is in place, therefore secretions nay become tenacious & difficult to expectorate or suction.
It is essential to replace this humidification to prevent the formation of potentially life threatening mucous plugs.

Nebulising:

Regular normal saline nebulisers are recommended to reduce the tenacity of secretions.

Thermovents :(Swedish noses)

These assist humidification by trapping the patient's own exhaled water vapour in the coils at each end; this then humidifies the air as the patient inhales. (There is no need to moisten the coils as this happens naturally.) It is essential that a thermovent be worn AT ALL TIMES.

The HME needs to be changed if it becomes soaked or filled with sputum, otherwise the work of breathing may escalate & the patient may actually deteriorate.

The importance of humidification cannot be overemphasised!

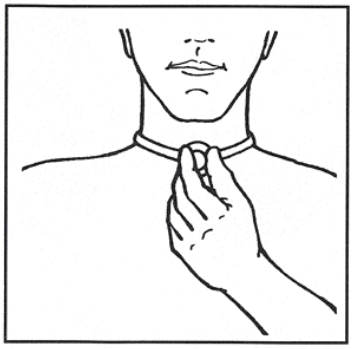
Thermovent (Swedish nose)

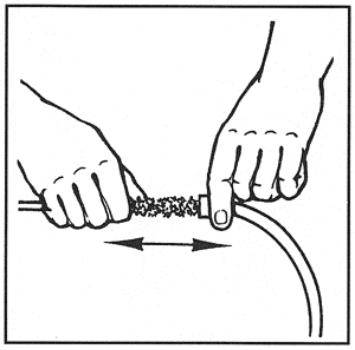
2. **INNER CANNULA CARE**:

Secretions can collect & dry out on the inner cannula lumen of the tracheostomy tube. Use of a tube with an inner cannula means the inner cannula can be removed & replaced to prevent tube occlusion. The ability to change the inner cannula in the event of tube blockage can avoid the trauma of a complete tube change.
The inner cannula should be checked at the beginning of each shift & at least every 2 hours…or immediately if the patient is showing signs of respiratory distress.
A spare inner cannula of the same size & type should be kept in an airtight container at the bedside at all times.

Cleaning of inner cannula:

- Wash hands & apply gloves.
- Remove the inner cannula by gently pulling the 'ring pull'.
- Clean inner cannula with warm tap water & pipe cleaners.
- Shake excess water from inner cannula & place in airtight container at bedside.
- Replace with inner cannula from airtight container at bedside.





3. **SUCTIONING**:

At best, suctioning is an uncomfortable procedure & is usually frightening for the patient.

It is essential to remember several things when suctioning:

- A tracheostomy is an open surgical wound & universal precautions must be observed.
- A clear explanation of the procedure & reassurance will help to decrease patient anxiety.
- Partial occlusion of the airway by the suction catheter, combined with aspiration of air from the lung while using an open suction system, can result in severe hypoxia, cardiac arrhythmia & even cardiac arrest.
- Suctioning procedures must NEVER exceed 15 seconds, even if no visible signs of distress are observed.
- The upper airway is lined with delicate tissue & care must be taken to avoid damage to these tissues during suctioning. For this reason, suction is applied intermittently only & with catheter rotation to avoid trauma to the mucosal walls of the trachea & bronchi.
- Suction is ONLY applied during catheter withdrawal in order to decrease the volume of air removed from the lungs & decreases the hypoxic effect & trauma to the airway.
- The O.D. of the suction catheter should be ½ the I.D. of the tracheostomy tube to avoid obstruction of the airflow around the catheter during the procedure. When a closed system is used the atmosphere will be oxygen enriched or will be supplied by the ventilator.

CORRECT SUCTION CATHETER TO TUBE SIZE

TRACHEOSTOMY TUBE SIZES	I.D. INNER CANNULA	SUCTION CATHETER SIZE	O.D. SUCTION CATHETER
3.0 PED (I.D.3mm)	N/A	FG - 6	2mm
4.0 PED (I.D. 4mm)	N/A	FG - 8	2.6mm
5.0 PED (I.D. 5mm)	N/A	FG - 8	2.6mm
6.0 (I.D. 6mm)	5.0mm	FG - 10	3.3mm
7.0 (I.D. 7mm)	5.5mm	FG – 10	3.3mm
8.0 (I.D. 8mm)	6.5mm	FG - 12	4mm
9.0 (I.D. 9mm)	7.5mm	FG - 14	4.5mm
10.0 (I.D.10mm)	8.5mm	FG - 14	4.5mm

KEY: I.D. – inner diameter
O.D. – outer diameter
FG – French gauge

SUCTIONING PROCEDURE:

- Explain the procedure to the patient.
- Wash hands & put on gloves.
- Using a non-touch technique, connect the suction catheter to the suction tubing.
- Remove HME.
- Instruct patient to take several breaths.
- Without applying suction, gently insert the suction catheter into the tube. Suction is only applied during catheter withdrawal to decrease the hypoxic effect of suctioning.
- If resistance is felt, withdraw the catheter slightly before applying suction.
- Rotate the catheter during withdrawal to avoid trauma to the mucosal walls of trachea & bronchi.
- Repeat as necessary, allowing the patient to take deep breaths between suctioning.
- Remove the catheter & dispose of in contaminated waste bag. Put tip of suction tubing into water to clear the tubing of secretions.
- Reapply HME.

RECORD & REPORT

- The colour, consistency & quantity of secretions.
- The frequency of suctioning required.
- Condition of the stoma.
- The patient's tolerance of the procedure.

4. **TRACHEOSTOMY DRESSINGS**:

- Tracheostomy dressings are NOT to be attended for the first 24hours.
- Always use Normal Saline soaked sterile gauze rather than cotton wool, to clean the stoma, to prevent the aspiration of lint.
- Check the skin integrity around the stoma.
- Ensure the stoma is free of crusts.
- While changing the tracheostomy ties, 1 nurse is to hold the tube in place, while the other nurse removes & replaces the ties.
- Generally speaking, dressings are not needed under a tracheostomy tube. However, if secretions are excessive or the stoma site is becoming macerated, sof-wick or allevyn are suitable to use.

5. **SPEAKING VALVES**:

Speaking valves may be used to help the patient achieve voice once the acute stage of their illness has passed.
They are a one-way valve, which opens on inspiration & allows air to enter the lungs. On expiration the valve closes, forcing expired air upwards around the tracheostomy tube & through the vocal cords to create sound. It is therefore very important to ensure that the cuff is **FULLY DEFLATED** before applying speaking valve.
In some cases, it may be necessary to change to a smaller size uncuffed or fenestrated tube to allow greater airflow around the tube.

REMOVE THE SPEAKING VALVE DURING NEBULISER THERAPY

AS SOME MEDICATIONS

MAY CAUSE THE ONE-WAY VALVE TO STICK.

When removed they should always be replaced by a Swedish nose to provide humidification.

SPEAKING VALVES ARE TO BE REMOVED WHEN PATIENT IS

SLEEPING IN CASE OF BLOCKAGE

CLEANING OF SPEAKING VALVES

- Swish in warm soapy water
- Rinse thoroughly in warm running water
- Allow to dry naturally, before storing in airtight container

6. **TUBE CHANGES**:

- Routine tube changes are NOT attended for the first 5 days, when a tract has usually formed.

- **Tube changes are to be attended by experienced clinicians only.**

- Routinely, tube changes are attended monthly, unless otherwise indicated.

7. **DECANNULATION**:

- The Tracheostomy Team will determine the decannulation procedure in consultation with the treating team.
- Once decannulated the stoma should be dressed with an airtight dressing.
- A 10 x 10cm adaptic is folded into quarters & then placed over the stoma. Cover this with post-op op-site & sleek to ensure airtight seal.
- Dressing to be changed as needed.
- Dressing to remain in place until NO air leak is present via the stoma.
- Encourage the patient to apply light pressure over the stoma site when speaking or coughing. This will encourage air & sputum up to the mouth, rather than through the stoma, therefore reducing the time required for the stoma to close.

8. **BEDSIDE EQUIPMENT**:

- Nebuliser (including tracheostomy mask, bowl & tubing) unless warmed humidifier available.
- N/Saline for nebuliser.
- Spare inner cannula (correct type & size)
- Gloves.
- Suction catheters (size 12 or 14 for adults).
- Yankeur sucker.
- Cuff manometer (if cuffed tube insitu).
- Tracheal dilators.
- 10ml syringe (non-Luer lock).
- 1 x spare tracheostomy tube of the same size & type as insitu.
- 1 x spare tracheostomy tube 1 size smaller (but same type) as insitu.
- Airtight container (for spare inner cannula)
- Water for cleaning suction tubing (non-sterile)
- Yellow contaminated waste bag.
- Suction canister (with liner in place), tubing & high wall suction.
- Sofwick or allevyn dressings.
- Velcro tracheostomy ties.

Ensure wall suction is ALWAYS in working order

**** IT IS THE RESPONSIBILITY OF THE NURSE LOOKING AFTER THE***

TRACHEOSTOMISED PATIENT

TO ENSURE BEDSIDE EQUPMENT IS STOCKED & READILY

AVAILABLE

AT THE BEGINNING OF EACH SHIFT *

9. **DISCHARGE REQUIREMENTS**:

- Tracheostomy tube in place must not have a cuff. Patient MUST progress to a non-cuffed or fenestrated tube to be suitable for discharge from hospital.
- A referral must be made to the E.N.T. Clinical Nurse Consultant before discharge.
- The patient must have a nebuliser at home before discharge is allowed.
- Community Nurse Referral is recommended.
- Tracheostomised patients must be assessed as to determine their suction requirements after discharge.
- Each patient & their carer must be competent with their tracheostomy care.
- Prior to discharged each patient will be supplied with:

    1. 2 spare tubes of the same size & type as the tube insitu.
    2. 2 x spare corresponding inner cannulas.
    3. 2 x speaking valves
    4. Pipe cleaners.
    5. 5 x Velcro neckties.
    6. Thermovents
    7. Tracheostomy nebuliser mask.
    8. Contact details for the E.N.T. C.N.C.
    9. A personalised information package re-tracheostomy care.
    10. Clinic appointments for follow up with the E.N.T. C.N.C.

DEALING WITH EMERGENCIES

***NOTE:** if the tracheostomy tube is sutured into place, the integrity of the sutures needs to be checked daily.

1. ACUTE DYSPONEA

…is most commonly caused by a partial or complete blockage of the tracheostomy tube by retained secretions…to unblock the tube

1. ASK THE PATIENT TO COUGH:
A strong cough might be all that is needed to expel secretions.

2. REMOVE THE INNER CANNULA:
Removing the inner cannula will automatically remove any secretions blocking the tube.
The outer tube remains patent, allowing the patient to breath freely.
Clean & replace the inner cannula.

3. SUCTION:
If coughing or changing the inner cannula didn't work, the secretions may be lower in the patient's airway. Suctioning may remove these.

***It is possible that the tracheostomy tube may have become displaced.*
Stay with the patient until help arrives.

*** Prepare for change of tracheostomy tube. ***

2. IF THE TRACHEOSTOMY TUBE FALLS OUT

DON'T PANIC!

(Once the tracheostomy tube has been in place for about 5 days, the tract has been well formed & will not close immediately.)

1. Reassure the patient.
2. Call for medical help.
3. Ask the patient to breath normally through their stoma until the doctor arrives.
4. The stay suture (if present) or tracheal dilator may be used to help keep the stoma open if necessary.
5. Stay with the patient & observe Sa02.
6. Prepare for insertion of new tracheostomy tube.
7. Once replaced, secure the new tracheostomy tube & check its position by observing the patients respirations.

3. RESUSITATION VIA A TRACHEOSTOMY TUBE

IN THE EVENT OF A CARDIOPULMONARY ARREST, TREAT TRACHEOSTOMY PATIENTS AS ANY OTHER

…PLUS…

STEP 1

EXPOSE THE PATIENTS NECK

Remove any clothing covering the tracheostomy tube.
DO NOT remove the tracheostomy

STEP 2

CHECK THE INNER CANNULA IS PATENT
To check inner cannula: Wearing a non-sterile glove, remove inner cannula. If clean, reinsert & lock into place.

STEP 3

VENTILATE
By using the ambu-bag directly to the tracheostomy tube.

REFERENCES:

- www.tracheostomy.com/resources/articles
- Tracheostomy Care Guidelines
  St. James Hospital/Royal Victoria Eye & Ear Hospital
  Ireland
  Tracheostomy Care Working Group, October 2000.
- Sims Portex Inc.
  Tracheostomy Care Handbook.
- www.surgical-tutor.org.uk
- www.healthatoz.com
- www.entlink.net
- www.frca.co.uk
- Australian Nursing Journal
  Tracheostomy - A Guide to Nursing Care
  Maureen Edgtton-Winn & Kylie Wright
  Clinical Update 88
  November 2005
- Nursing Standard
  Tracheostomy Care
  July 5/Vol 14/No 42/2000
- Tracheostomy and its Variants
  Dr. Praveen Kumar Neema
  Dr. Sethuraman Manikandan
  Indian Journal of Anaesthesia
  2005; 49 (4): 323-327
- www.nda.ox.ac.uk
  World Anaesthesia
  Issue 15 (2002) Article 16
- www.anna.asn.au
- www.tracheostomy.com

TRACHEOSTOMY CARE

SELF – DIRECTED LEARNING PACKAGE

1. Name 3 indications for a tracheostomy.

   ……

   ……

   ……

2. Name 3 advantages of the percutaneous tracheostomy technique.

   ……

   ……

   ……

3. Name 3 complications from a surgical tracheostomy insertion technique.

   ……

   ……

   ……

4. Name 3 indications for cuffed tracheostomy tubes.

   ……

   ……

   ……

5. Why is it necessary to deflate the cuff? How often should this be done & for how long?

   ……

   ……

……

6. Why is it necessary for 2 nurses to be present while deflating the cuff?

……

……

……

7. What is an indication that a patient may be suitable for an uncuffed tracheostomy tube?

……..

……..

……..

8. Why do 2 different inner cannulas come with every fenestrated tracheostomy tube? Why must they be changed prior to suctioning?

……

……

……

9. Why must extra care be taken with longshank tracheostomy tubes?

……

……

……

10. Explain the importance of humidification in tracheostomy care.

……

……

……

11. Name 2 types of humidification used routinely.

……

……

12. Why is it necessary to check the inner cannula at the beginning of each shift?

……

……

……

13. Name 3 things important to remember when suctioning a tracheostomy.

……

……

……

14. When is it NOT suitable to apply a speaking valve to a tracheostomy tube?

……

……

15. Why is it necessary to remove a speaking valve when giving nebuliser therapy or when patient is sleeping?

……

……
……

16. Why is it necessary for 2 nurses to change the tracheostomy ties?

……

……

……....

17. Is cleaning the stoma with N/S soaked cotton wool the correct procedure? If not, why? What should be used instead?

……

……

18. Why are routine tube changes not attended for the first 5 days after insertion?

……

……

19. What type of dressing should be applied to stoma after decannulation?

……

……

……

20. Name 10 things, which must be kept at the bedside of a patient with a tracheostomy.

……

……

……

……

……

**** Once completed, please return to Gai Shylan (ENT.CNC. ENT clinic South Block, Royal Newcastle Centre) Your Resource Package will be returned to you.***