



# TRACHEOSTOMY

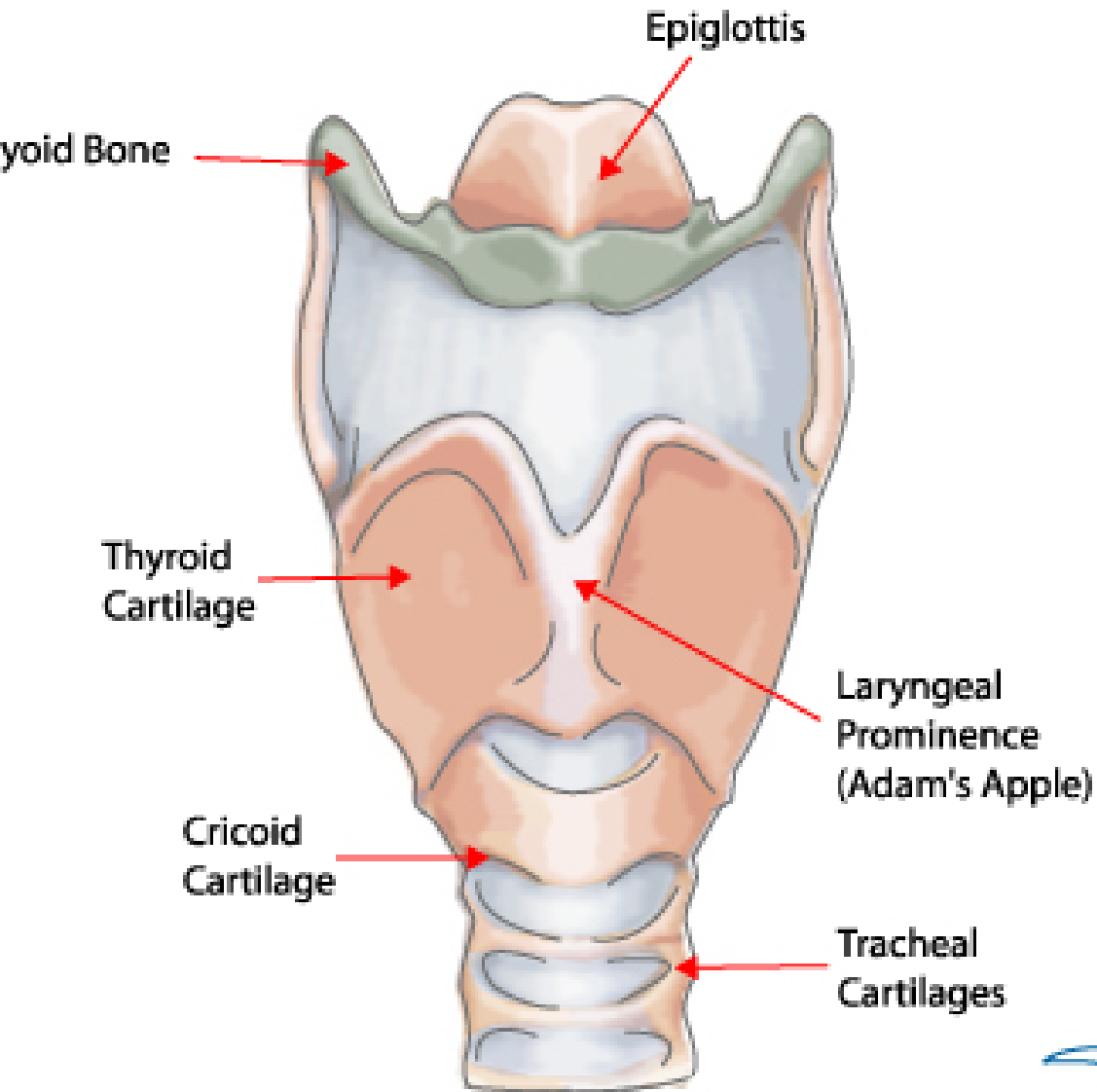
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# Larynx



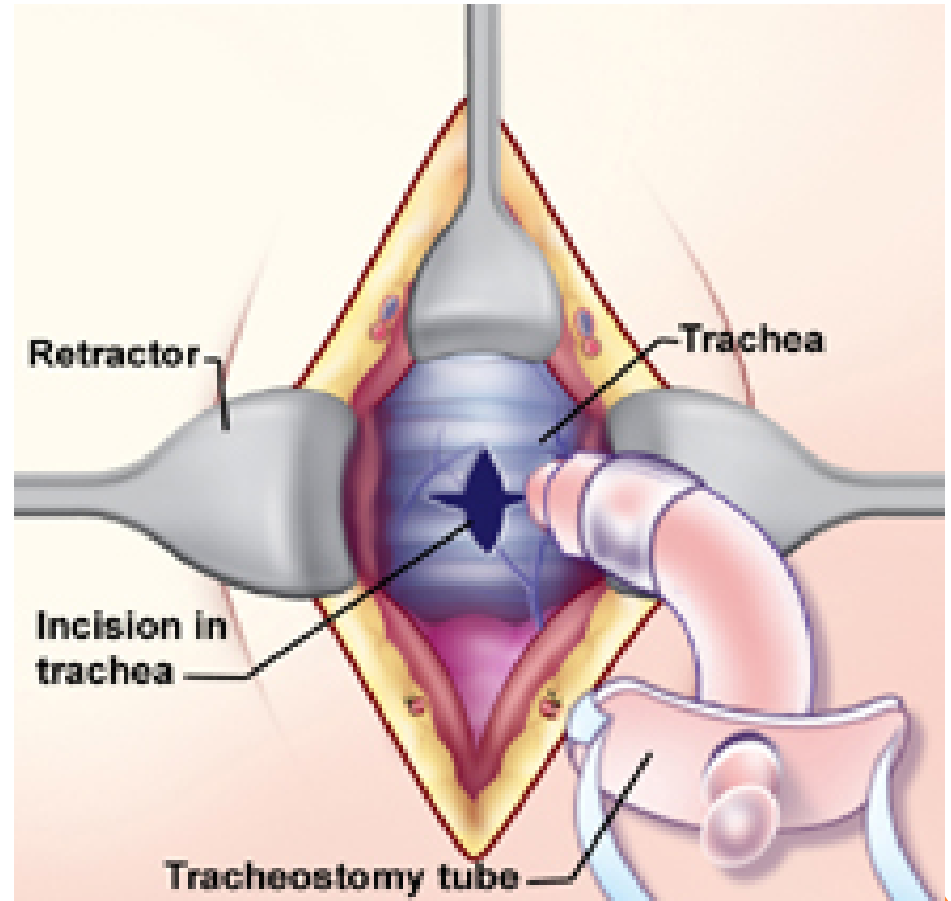
## INTRODUCTION

Tracheostomy is creating an airway access in the cervical trachea to facilitate breathing. It may be temporary or permanent.



# INDICATIONS

- Bypass upper airway obstruction
- Facilitate bronchial toileting/oxygen administration
- Prevent aspiration from pharynx /GIT
- facilitate weaning from positive pressure ventilation/sedation
- Facilitate long term airway management



# PROCEDURE

## Surgical Tracheostomy

- Patient is supine with head extension and under GA
- Incision 2-3 cm from 2<sup>nd</sup> tracheal ring down
- Thyroid isthmus is divided if needed
- A hole is made between the 3<sup>rd</sup> and 4<sup>th</sup> tracheal ring
- Tracheostomy tube is inserted

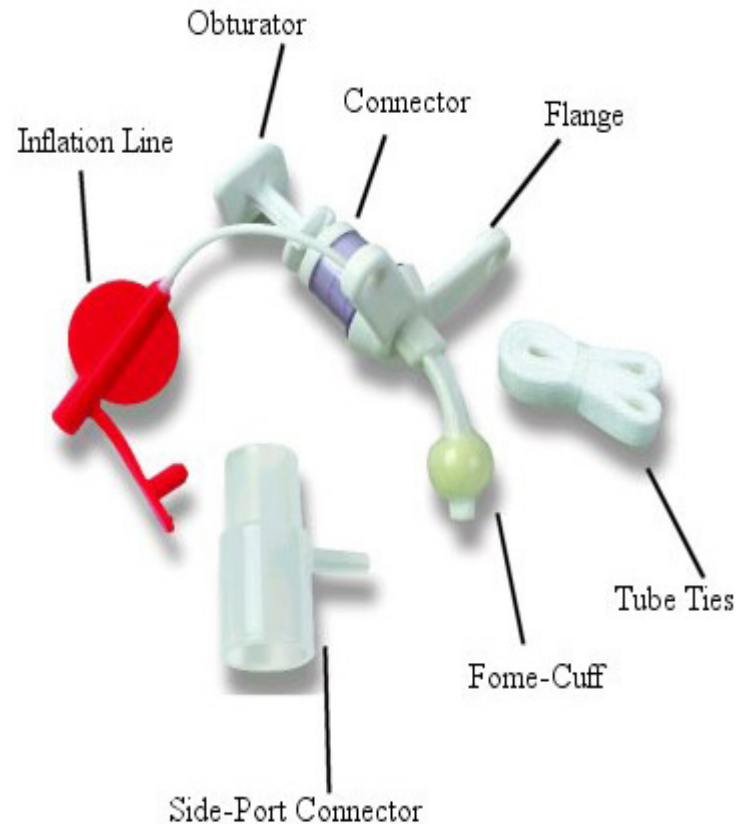
## Percutaneous Tracheostomy

- Performed using guide wires / dilators
- Guide wire is placed between the 1<sup>st</sup> and 2<sup>nd</sup> tracheal rings
- Dilators are used to increase hole size
- Can be performed either blindly or with the aid of bronchoscope



# TYPES OF TRACHEOSTOMY TUBES

- Can be made of plastic, metal or silicone
- Can be cuffed, uncuffed, fenestrated
- Parts :
  1. Outer tube
  2. Inner tube
  3. obturator





# METAL TRACHEOSTOMY TUBES





## PERCUTANEOUS TRACHEOSTOMY KIT



# COMPLICATIONS

## Immediate

- Haemorrhage
- Hypoxia
- Damaged to recurrent laryngeal nerve
- Damage to oesophagus
- Pneumothorax
- Subcutaneous emphysema

## Subsequent

- Tube obstruction / displacement
- Infection
- Tracheal stenosis
- Tracheomalacia
- Aspiration and pneumonia
- Fistula formation





# PATIENT CARE

## Short Term Tracheostomy

- Reassurance and support
- Meticulous care towards hygiene / asepsis
- Suctioning
- Speaking / swallowing
- Removal – as the pt improves the trachea can be plugged for longer duration each day so long as pt can tolerate it

## Long Term Tracheostomy

- Educate pt / relatives
- Hygiene / asepsis
- Humidification
- Management regarding speaking / eating



# REFERENCES

- Delaney A, Bagshaw SM, Nalos M; Percutaneous dilatational tracheostomy verses surgical tracheostomy in critically ill pt. 2006
- Durbin CG Jr; Techniques for performing tracheostomy. 2005
- Epstein SK; Late complications of tracheostomy. 2005
- Anaesthesia UK: percutaneous tracheostomy{ internet reading}

