TRACHEOSTOMY

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History of Tracheostomy:

- Vesalius 1514 – 1564
- Heroldt & Rafn 1796
- Bretonneau 1826
- Trendelenberg 1896
- Chevalier Jackson 1904

Tracheostomy: Timing

- “The time to do a tracheostomy is when you first think of it.”
- “If you think of doing a tracheostomy, first consider the possibility of intubation.”

Indications for Tracheostomy:

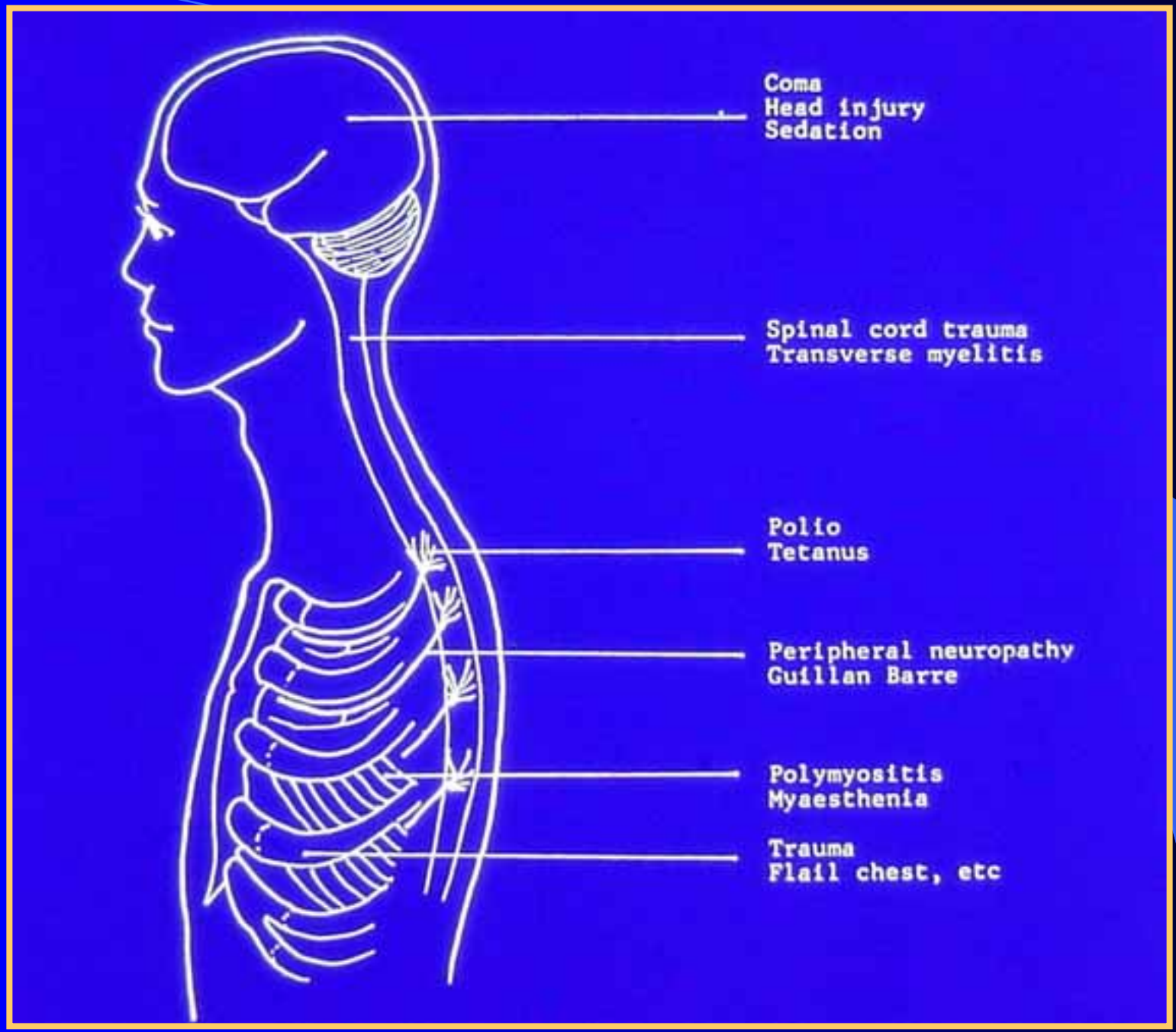
- Respiratory obstruction
- Pulmonary disease
- Failure of ventilatory mechanism
- Radical head and neck surgery

Respiratory Obstruction:

- Congenital
- Traumatic
- Infective
- Tumour
- Neural

Indications: Pulmonary Disease

- Allows access to bronchial secretions
- Permits positive pressure ventilation
- Protects against respiratory aspiration

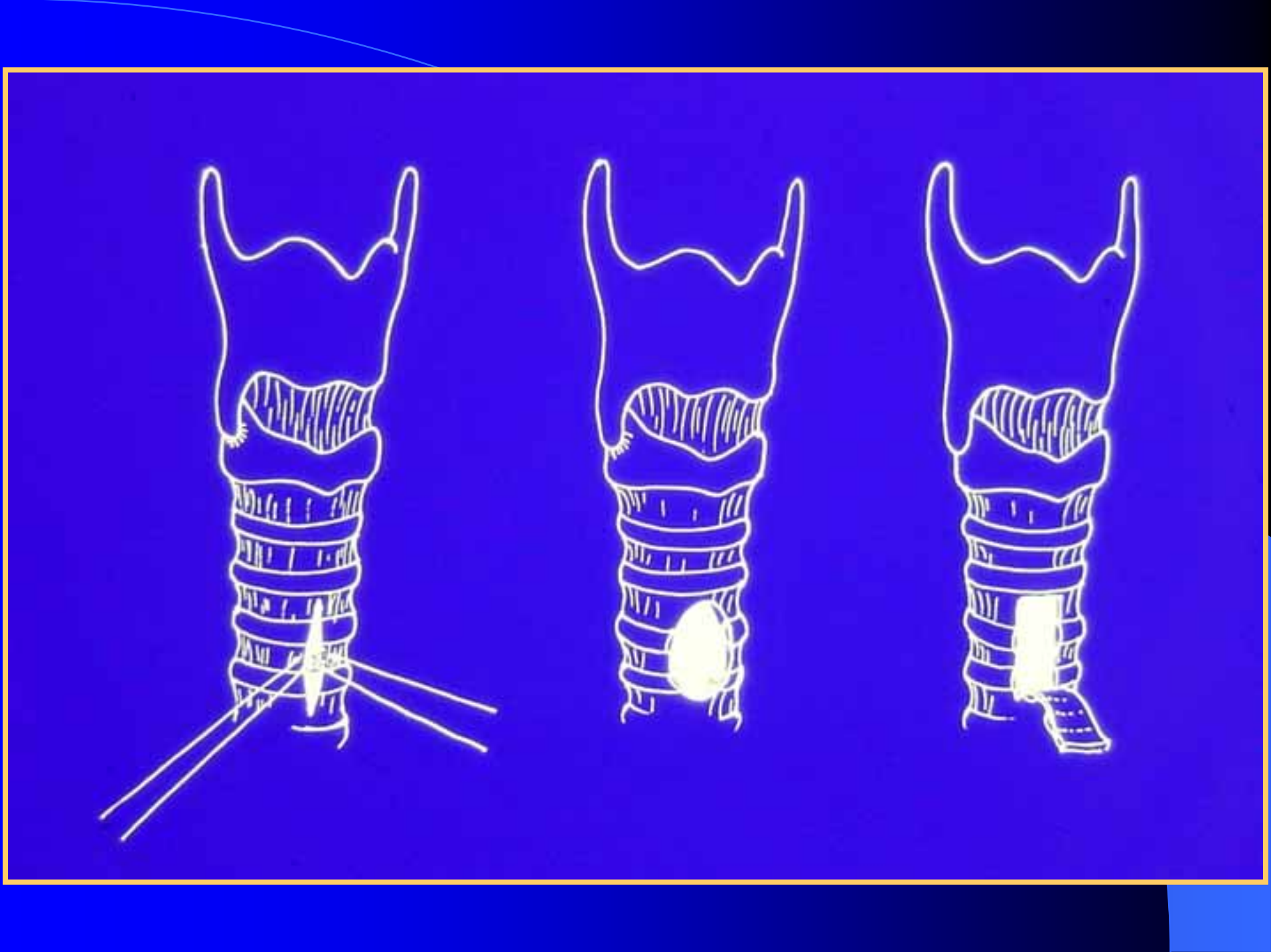

Coma
Head injury
Sedation
Spinal cord trauma
Transverse myelitis
Polio
Tetanus
Peripheral neuropathy
Guillan Barre
Polymyositis
Myaesthenia
Trauma
Flail chest, etc

Tracheostomy: Points of technique

- Don’t over extend the neck
- Transverse incision – influences lie of tube.
- Divide the thyroid isthmus if necessary.
- In difficult cases search for trachea by needle aspiration.
- Inject local anaesthetic into trachea prior to incision.
- Stabilise trachea with cricoid hook

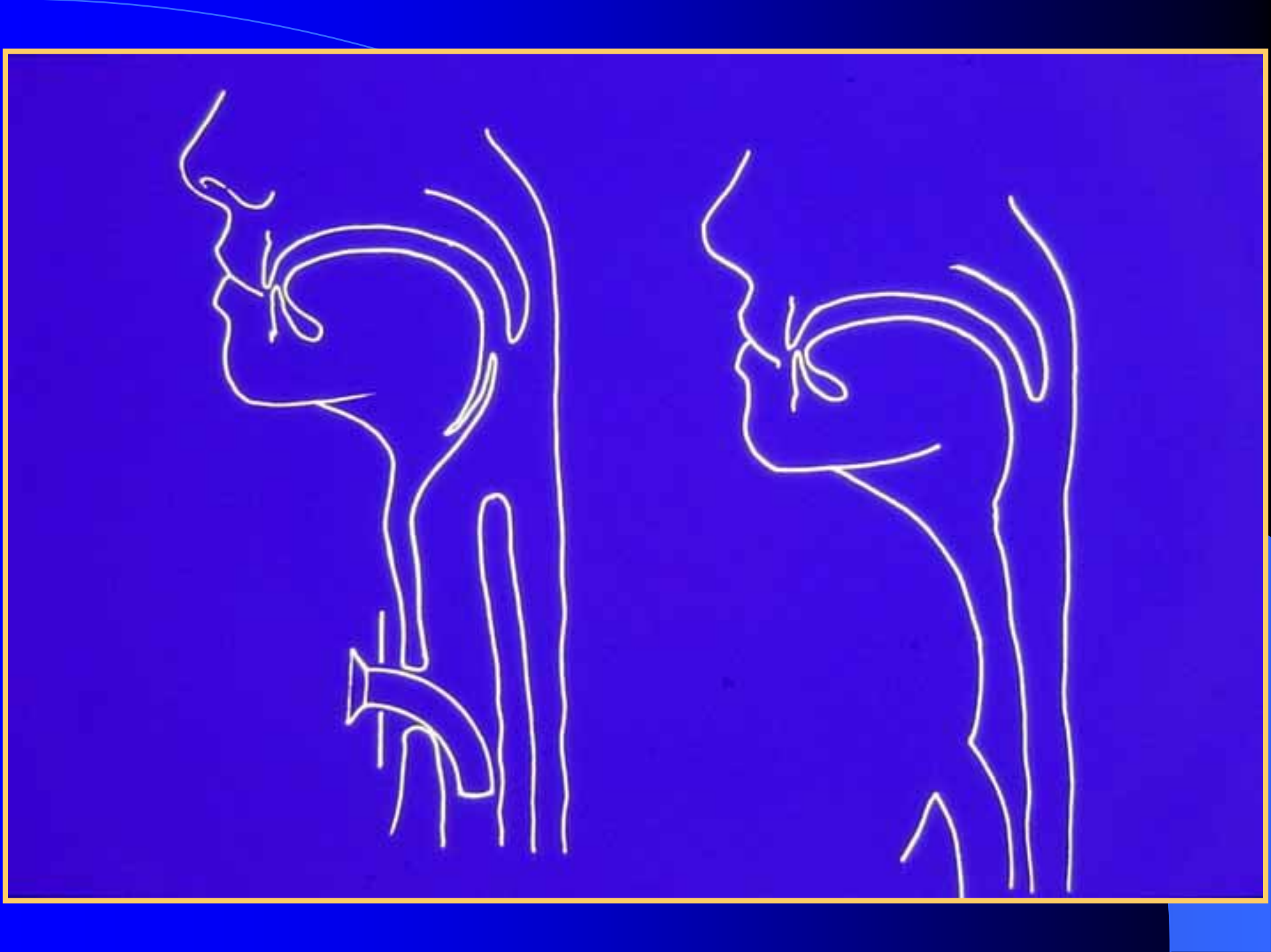
Tracheostomy : The Tracheotomy

- Not too high Not too low
- 2nd to 3rd or 3rd to 4th rings
- Never excise tissue in a child
- Vertical slit : use stay sutures
- Round fenestration
- Bjork flap - should be formally closed



Tracheostomy : Postop Care

- Suction
- Humifidication
- Communication
- Emergency equipment
- Constant nursing care



Complications:

- ADULTS: 1.6% mortality

  48% Complications

- CHILDREN: 5.5% mortality

  36% complications

Complications

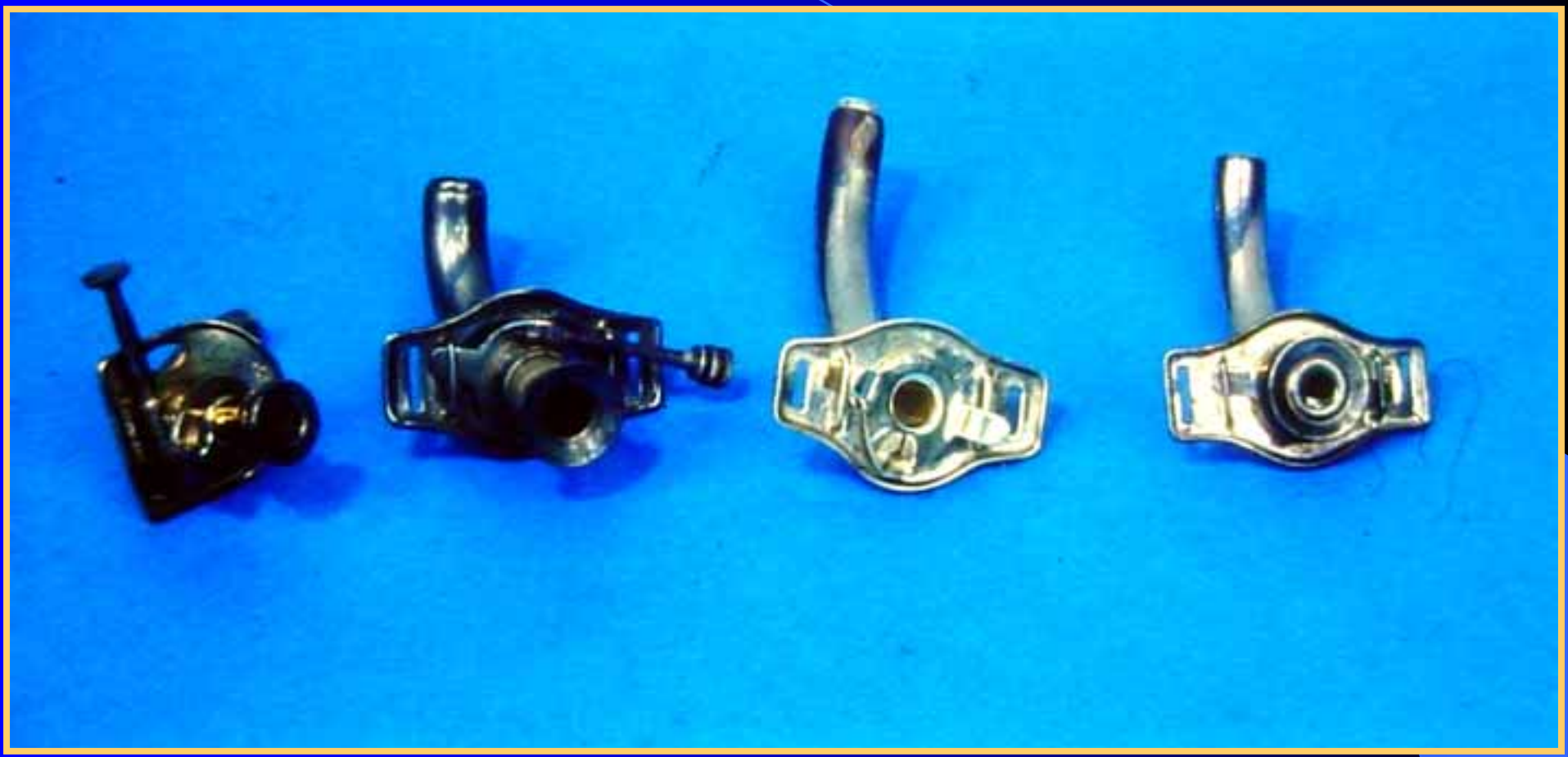
- Bleeding
- Tube problems
- Apnoea
- Pneumothorax
- Surgical emphysema
- Wound infection
- Tracheal stenosis
- Tracheo eosophageal fistula (TOF)
- Persistant stoma

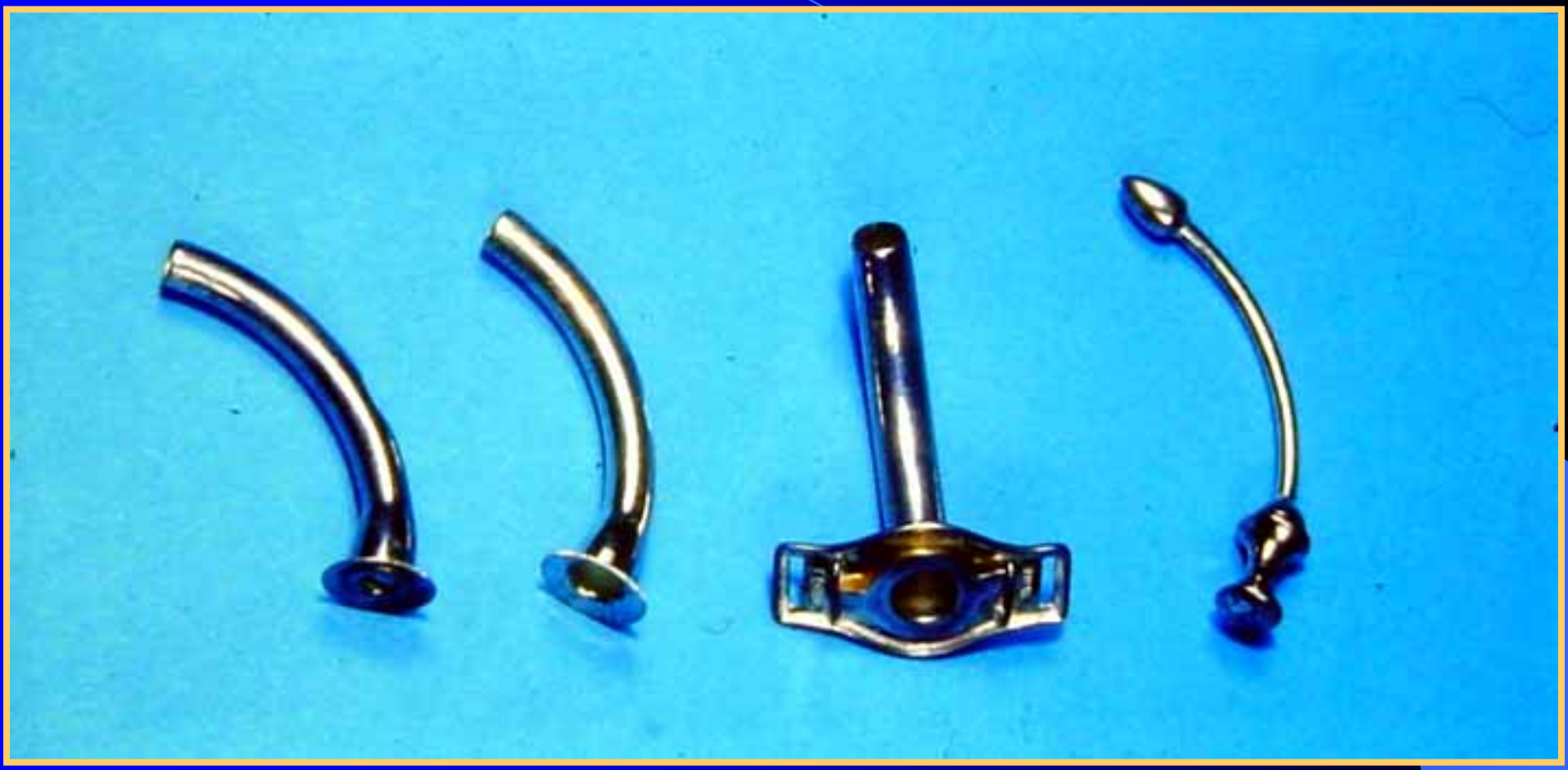
Complications: Bleeding

- Operative: Thyroid isthmus
  Great vessels
  Anterior jugular veins
  Inferior thyroid veins
- Delayed: Persistent stomal edge oozing
  Endo bronchial erosion
  Tracheo-innominate erosion

Complications: Tube Problems

- Obstruction
- Displacement
- Position of tube in trachea
- Suprastomal indentation





Complictions :Stenosis

Pressure effects

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Ischaemia - infection

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Inflammatory response

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Mucosal ulceration

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Exposure of cartilage

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Granulation tissue formation

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Healing by fibrosis - Stenosis

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