Management of the tracheostomy patient with breathing difficulties - Patent upper airway

**Call for airway expert help** (Anaesthetic / Critical Care / ENT)

*Look, listen & feel at the mouth and tracheostomy*

A Mapleson C system ("Waters circuit") may help assessment if available

Use **waveform capnography** when available: exhaled carbon dioxide indicates a patent or partially patent airway

**Is the patient breathing?**

- **Yes**
  - **Apply high flow oxygen to BOTH the face and the tracheostomy**
  - **Assess tracheostomy patency**

- **No**
  - **Call Resuscitation Team CPR if no pulse / signs of life**

**Remove speaking valve or cap** (if present)

Remove **inner tube**

Some inner tubes need re-inserting to connect to breathing circuits

**Can you pass a suction catheter?**

- **Yes**
  - The tracheostomy tube is patent
  - Perform tracheal suction
  - Consider partial obstruction
  - Ventilate (via tracheostomy) if not breathing
  - Continue ABCDE assessment

- **No**
  - Deflate the cuff (if present)
  - **Look, listen & feel at the mouth and tracheostomy**
  - Use waveform capnography or Mapleson C ("Waters circuit")

**Is the patient stable or improving?**

- **Yes**
  - **Tracheostomy tube partially obstructed or displaced**
  - Continue ABCDE assessment

- **No**
  - **REMOVE THE TRACHEOSTOMY TUBE**
  - **Look, listen & feel at the mouth and tracheostomy. Ensure oxygen re-applied to face and stoma**
  - Use waveform capnography or Mapleson C ("Waters circuit") if available

**Is the patient breathing?**

- **Yes**
  - **Continue ABCDE assessment. Support ventilation if hypoxic**

- **No**
  - **Call Resuscitation team CPR if no pulse / signs of life**

**Primary emergency oxygenation**

- **Standard ORAL airway manoeuvres**
  - Cover the stoma (swabs / hand) and use:
    - Bag-valve-mask
    - Oral or nasal airway adjuncts
    - Supraglottic airway device e.g. LMA

- **Tracheostomy STOMA** ventilation
  - Paediatric face mask applied to stoma
  - LMA applied to stoma

**Secondary emergency oxygenation**

- **Attempt ORAL intubation**
  - Prepare for difficult intubation
  - Uncut tube, advanced beyond stoma

- **Attempt intubation of STOMA**
  - Small tracheostomy tube / 6.0 cuffed ETT
  - Consider Bougie / Aintree catheter / fibreoptic scope / Airway exchange catheter
Emergency Management of the laryngectomy patient with breathing difficulties

**Call for airway expert help (Anaesthetics / Critical Care / ENT)**

**Look, listen & feel at the mouth and laryngectomy stoma**
A Mapleson C system ("Waters circuit") may help assessment if available

Use **waveform capnography** whenever available: exhaled carbon dioxide indicates a patent or partially patent airway

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**Is the patient breathing?**

- Yes
  - **Apply high flow oxygen to laryngectomy stoma**
    (use tracheostomy mask or paediatric face mask)
    If any doubt whether patient has a laryngectomy,
    **apply oxygen to face also**

- No
  - **Call Resuscitation Team**
  - CPR if no pulse / signs of life

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**Assess laryngectomy stoma patency**

**Most laryngectomy stomas will NOT have a tube in situ**

- **Remove stoma cover** (if present)
- **Remove inner tube** (if present)
  
  Some inner tubes need re-inserting to connect to breathing circuits
  
  Do not remove a tracheoesophageal puncture (TEP) prosthesis

- **Can you pass a suction catheter?**
  - Yes
    - **Deflate the cuff** (if present)
    - **Look, listen & feel at the laryngectomy stoma or tube**
      - Use waveform capnography or Mapleson C if available
  
  - *No*
    - **Is the patient stable or improving?**
      - Yes
        - **Continue ABCDE assessment**
      
      - Yes
        - **Remove the tube from the laryngectomy stoma if present**
        
        **Look, listen & feel at the laryngectomy stoma.** Ensure oxygen is re-applied to stoma
        
        Use waveform capnography or Mapleson C if available

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- **No**
  - **Call Resuscitation Team**
  - CPR if no pulse / signs of life

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**Primary emergency oxygenation**

- **Laryngectomy stoma** ventilation via either
  
  Paediatric face mask applied to stoma
  
  LMA applied to stoma

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**Secondary emergency oxygenation**

- **Attempt intubation of laryngectomy stoma**
  
  Small tracheostomy tube / 6.0 cuffed ETT
  
  Consider Aintree catheter and fibreoptic scope / Bougie / Airway exchange catheter

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**Laryngectomy patients have an end stoma and cannot be oxygenated via the mouth or nose**

Applying oxygen to the face and stoma is the default emergency action for all patients with a tracheostomy