

# Endotracheal Tube (ETT) Taping Guide

Securing the ETT with tape is the preferred method of securement in paediatric patients. Below is a guide for how to safely and securely tape an ETT. This task will require at minimum two staff. It is vital to ensure adequate ventilation is provided throughout. If possible, it is preferred to establish the patient on mechanical ventilation via a ventilator.

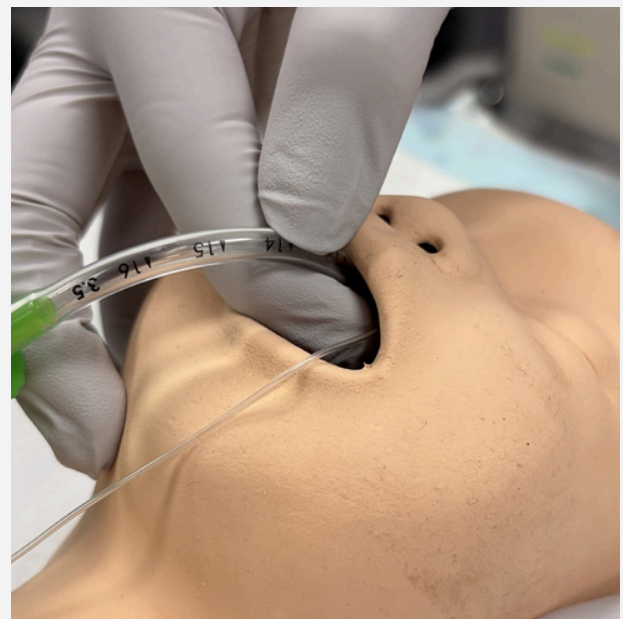
## Recommendations for Secure ETT Holding

After ETT insertion, it is vital that the person holding the ETT in place is focused with distractions minimised. Suboptimal holding of the ETT may result in tube migration, accidental extubation, accidental main bronchus intubation and damage and swelling of the surrounding tissue. When holding the ETT, it is essential that the holding hand is also anchored to the patient's face to minimise tube movement. The two recommended methods of holding are pictured below:



Grasp ETT between thumb and index finger firmly.  
Place middle, ring and little finger across patient's cheek to stabilise.

OR



Use index finger to firmly hold ETT against the hard palate inside the mouth.



### ALERT

Ventilator tubing is often heavy and weighs down the ETT. Consider use of ventilator tubing holder if available to prevent drag on the ETT. If not available, allocation of an additional person to hold the tubing may be required.

## Tips



Endotracheal attachment devices (ETAD) may be utilised in children of an appropriate age and size. It is important that the adhesive pads for the ETAD are adhered to the cheeks only. If they are too large and cover the ears, it is recommended to instead use tapes. Typically, ETADs are used for ETTs that are 5.0mm or larger in size. Always refer to the [Manufacturer's instructions](#) on application method.




### 1 GATHER

- Elastic zinc oxide tape  
OR  
Brown tape
- Hydrocolloid dressing
- Skin prep wipes


### 2 PREPARE

To measure the length of tape, pull a length of tape from the ear to the nose, and then double.



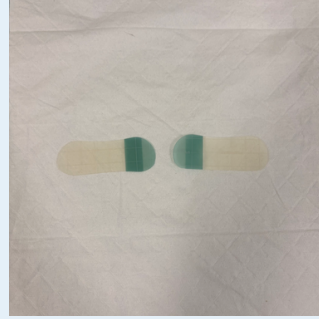
### 3

To create the pantleg, cut tapes up the middle. The uncut section of the tape is the length of the cheek (corner of mouth to tragus).




### 4

Cut hydrocolloid dressing to cover the cheeks of the patient. Ensure they are not too long, they should not cover or touch the ears.




### 5 PROCEDURE

Prepare the skin. Wipe the cheeks as well as above and below the lips with a barrier wipe and allow to dry.



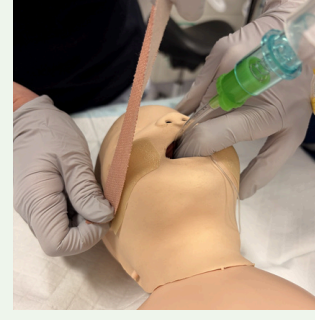
### 6

Apply hydrocolloid strips, starting from beside the corner of the mouth and stretching across the cheeks to the ears on both sides.




### 7

Bring the ETT to the corner of the mouth. Place the wide end of the tape over the hydrocolloid dressing on the same side as the ETT.



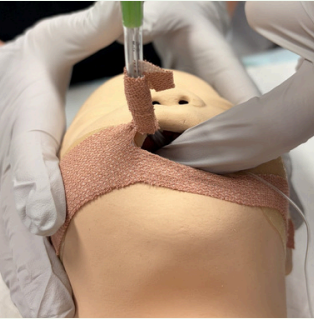
### 8

Place the lower pantleg under the bottom lip and cross over to the opposite hydrocolloid tape. Check ETT remains at same depth.



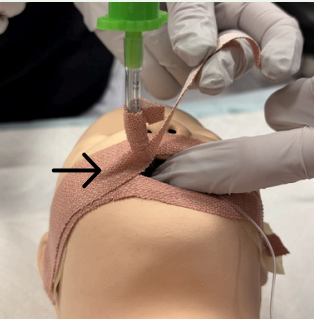
### 9

Position cuff away from tube. Wind the upper pantleg around the ETT, overlapping each pass by half. Fold the end over to create a tab.




### 10

Place the wide end of the second tape on the SAME SIDE. Place the upper pant leg above the top lip.




### 11

Wind the lower pantleg around the ETT, overlapping each pass by half. Fold the end over to create a tab.



### 12

Document depth of ETT at the teeth or gumline. Secure nasogastric or orogastric tube over the top of the tapes.

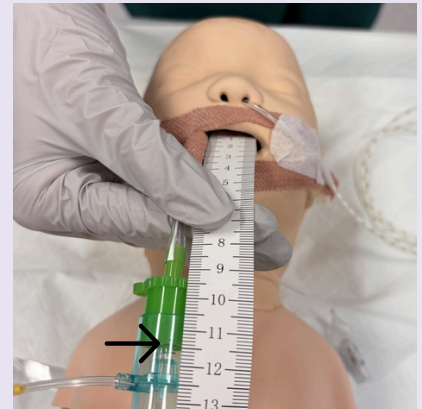



## ETT Depth Measurement

ETT depth must be documented after intubation and following confirmation of positioning. It is vital to know ETT depth to reduce risk of accidental extubation or ETT migration. The two methods of measurement are the internal length and external length.

Internal length refers to the centimeters measured at the teeth/gum line. To see this measurement, carefully lift the lip of the patient and look for the centimeter measurement corresponding to the teeth/gum line. A penlight may be useful to help visibility.

External length refers to the length from the teeth/gum line to the external flange of the ETT. This is often measured when the internal length is obscured by the securement tapes. To obtain this measurement, use a paper measuring tape positioned at the teeth/gum line and follow along the ETT to the flange (see image).



This patient's ETT external length is 11.5cm

### For further information:

[Video: How to secure the ETT](#)

[Guideline: Intubation and Ventilation - Management in Paediatric Intensive Care Unit](#)

[User Guide: AnchorFast Oral Endotracheal Tube Fastener](#)

### References:

This Queensland Paediatric Skill Sheet was developed by the Emergency Care of Children working group (funded by the Queensland Emergency Department Strategic Advisory Panel) with the help of the following resources:

Children's Health Queensland. (2024, October 10). Intubation and Ventilation - Management in Paediatric Intensive Care Unit. Accessed 24 December 2025 from [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0023/725252/gdl-01405.pdf/\\_nocache](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0023/725252/gdl-01405.pdf/_nocache)

This Queensland Paediatric Emergency Skill Sheet was developed and revised by the Emergency Care of Children working group. Initial work was funded by the Queensland Emergency Department Strategic Advisory Panel.

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- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.

- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

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