

Al Mustaqbal University

College of Health and Medical Techniques

Department of Anesthesia

Practical Anesthesia

Stage Two

Lecture 3

Endotracheal Tubes

By Lectures

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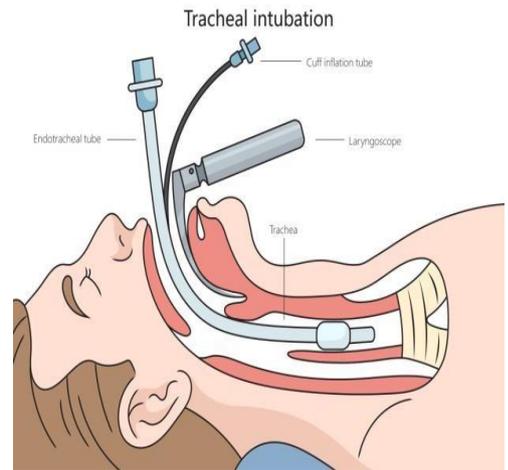
BSc. Anesthesia & Intensive Care

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Endotracheal Tubes

Introduction

- Inserting a tube into the trachea has become a routine part of delivering a general anesthetic.
- provides maximal protection against the **aspiration** of gastric contents.
- The modern, **standard ETT** is a disposable, singleuse, cuffed, plastic tube that is designed to be inserted through the nose or mouth

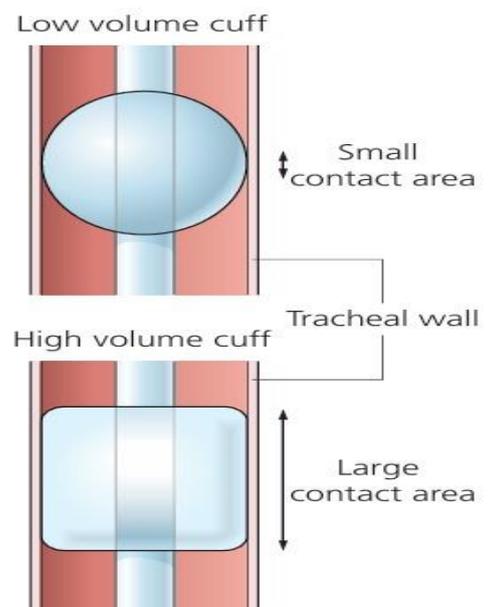


Indication

- To secure airway
- General anesthesia
- Cardio pulmonary resuscitation (CPR)
- Ventilatory therapy in ICU

Endotracheal Tube

- ✦ **Cuffed ETT (used in adults)** consisting of a valve, pilot balloon, inflating tube, and cuff
 - ✓ **The valve** prevents air loss after cuff inflation.
 - ✓ **The pilot balloon** provides a gross indication of cuff inflation.
 - ✓ **The inflating tube** connects the valve to the cuff and is incorporated into the tube's wall.
- ✦ ETT cuffs permit positive-pressure ventilation and **reduce the likelihood of aspiration.**
- ✦ **Uncuffed ETT** are usually used in infants and young children.



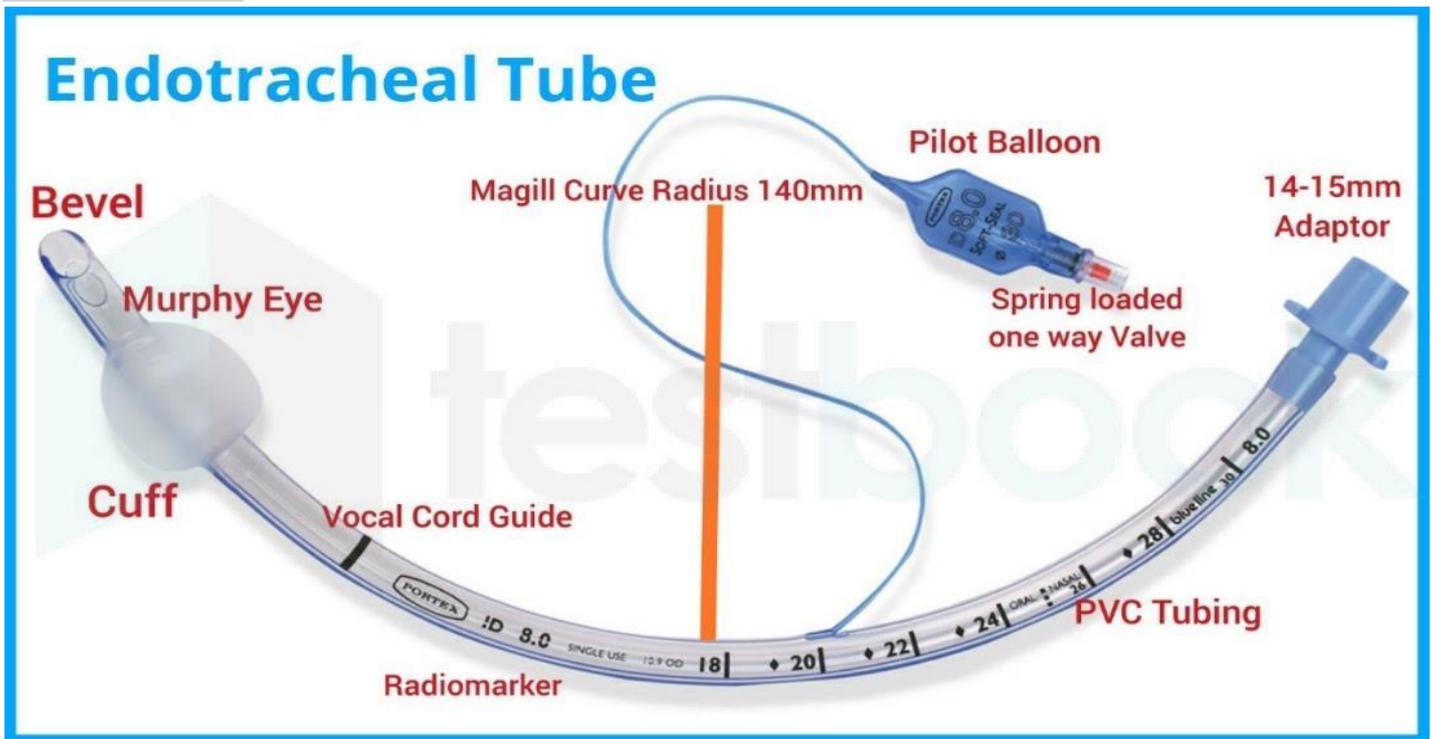
There are two major types of cuffs:

- **high pressure (low volume) cuff** are associated with more ischemic damage to the tracheal mucosa and are less suitable for intubations of long duration.
- **low pressure (high volume) cuff** may increase the likelihood of sore throat, aspiration, spontaneous extubation, and difficult insertion (because of the floppy cuff).

low pressure cuffs are used most because they are less likely cause injury.



Parts of ETT



Tube Size & Length

Age	Internal diameter	Length to teeth
Infant	3mm (uncuffed)	9 cm
Child	age/4 + 4	Age/2 + 12 cm
Adult Female Male	6.5 – 7.5 mm 7.0 – 8.5 mm	18-22 cm

Variation types of Endotracheal Tube

➤ **Armored Tubes**

Flexible, spiral wound, wire-reinforced ETTs resist kinking and may prove valuable in some head and neck surgical procedures or in the prone patient.



➤ **Double-lumen ETT**

to facilitate lung isolation and one-lung ventilation



Thank You

