Al Mustaqbal University

College of Health and Medical Techniques

Department of Anesthesia

Practical Anesthetic Equipment

Stage Three

Course 1 Lecture 3

Laryngoscope

By Lectures

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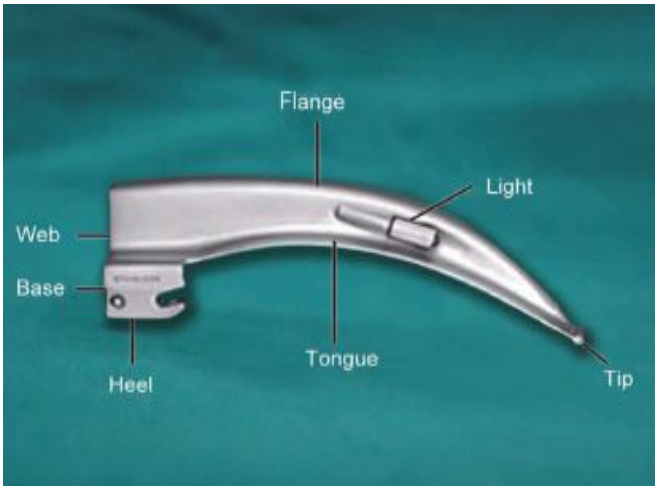
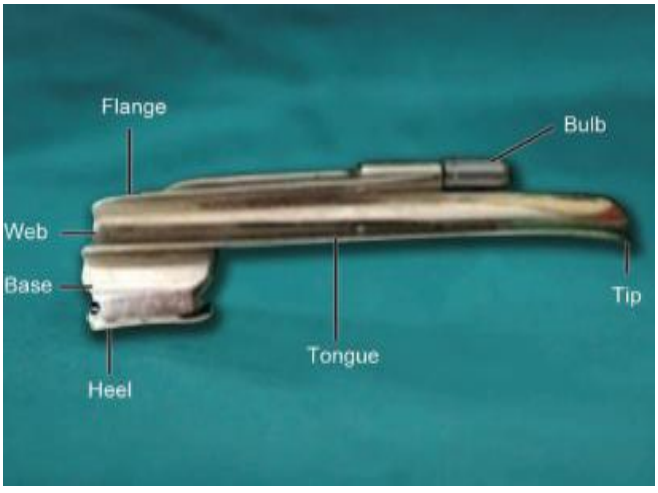
Laryngoscopes

These devices are used to perform direct laryngoscopy and to aid in tracheal intubation. They can also be used to visualize the larynx or pharynx for suctioning, removing foreign bodies, and placing nasogastric tubes and throat packs.

Components

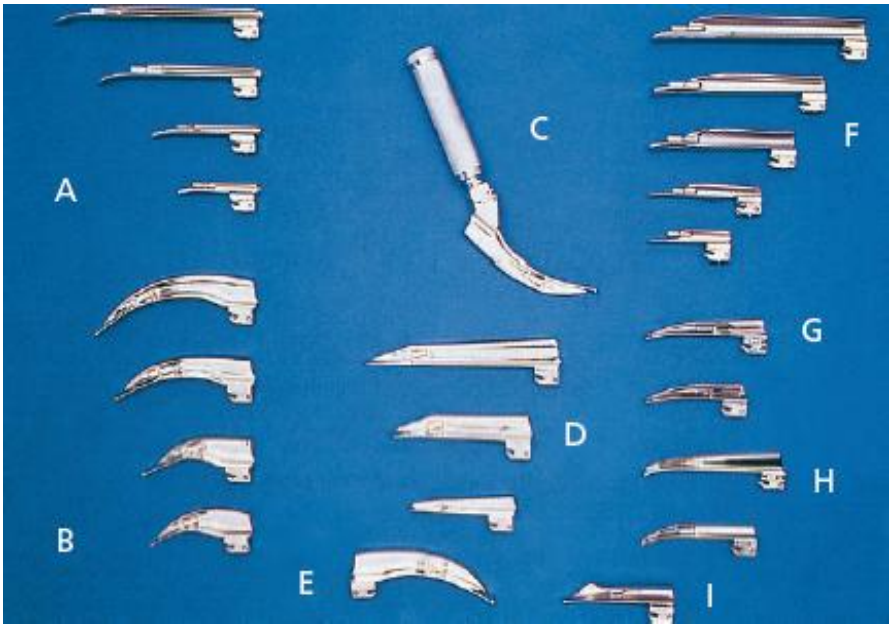
1. The handle houses the power source (batteries) and is designed in different sizes.
2. The blade is fitted to the handle and can be either curved or straight. There is a wide range of designs for both curved (Macintosh) and straight (Miller) blades.





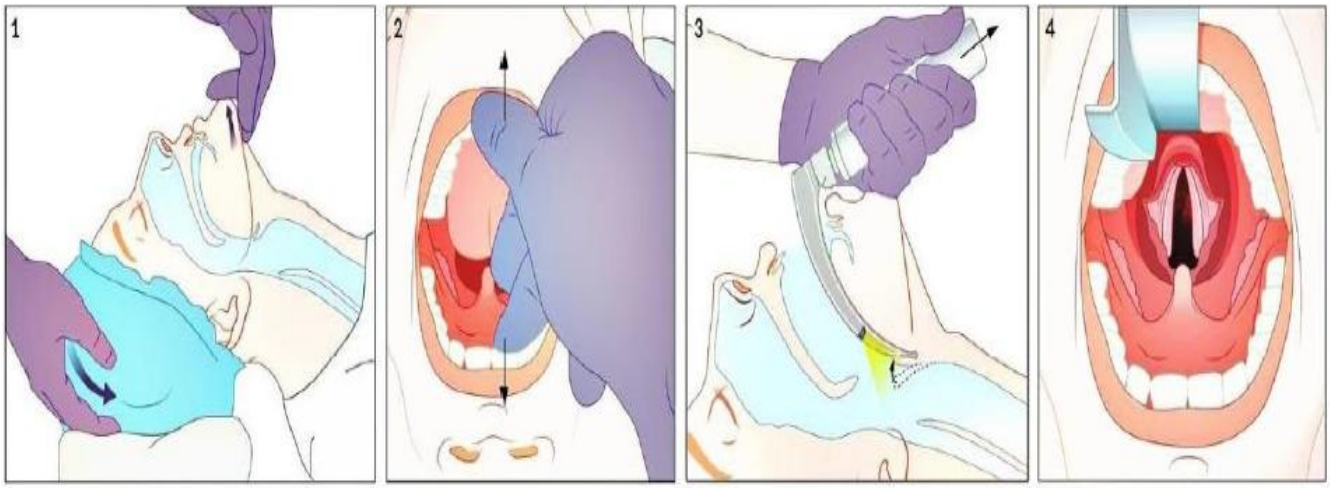
Laryngoscope blades are numbered according to their length. A Macintosh 3 and Miller 2 are the standard intubating blades for adult patients. The Macintosh 4 and Miller 3 blades can be used for larger adult patients.

Size	Patient type
000	Small premature infant
00	Small premature infant
0	Neonate
1	Small child
2	Child
3	Adult
4	Large adult
5	Extra-large adult



Method of insertion:

1. Scissoring: patient's mouth manually opened by counter pressure of the right thumb on the mandibular teeth and right index finger on the maxillary teeth.
2. Simultaneously insert the laryngoscope blade
3. BURP: backward upward rightward pressure, manipulation of the patient's thyroid cartilage externally on the neck.



Important note: The laryngoscope view obtained is classified according to the Cormack and Lehane score. Grade III or IV views are associated with difficult intubation.

Grade I: Most of the glottis is visible.

Grade II: Only the posterior portion of the glottis is visible.

Grade III: The epiglottis, but no part of the glottis, can be seen.

Grade IV: No airway structures are visualized.

Problems in practice and safety features

1. The risk of trauma to the different structures (e.g. epiglottis) is higher with the straight blade.
2. It is of vital importance to check the function of the laryngoscope before anesthesia has commenced. Reduction in power or total failure due to the corrosion at the electrical contact point is possible.

3. Patients with large amounts of breast tissue present difficulty during intubation. Insertion of the blade into the mouth is restricted by the breast tissue impinging on the handle. To avoid it, specially designed blades are used such as the polio blade. A Macintosh laryngoscope blade attached to a short handle can also be useful in this situation.
4. To prevent cross-infection among patients, a disposable blade is used.
5. Laryngoscope handles must be appropriately decontaminated between patients to prevent cross-infection.
6. Dental injuries.

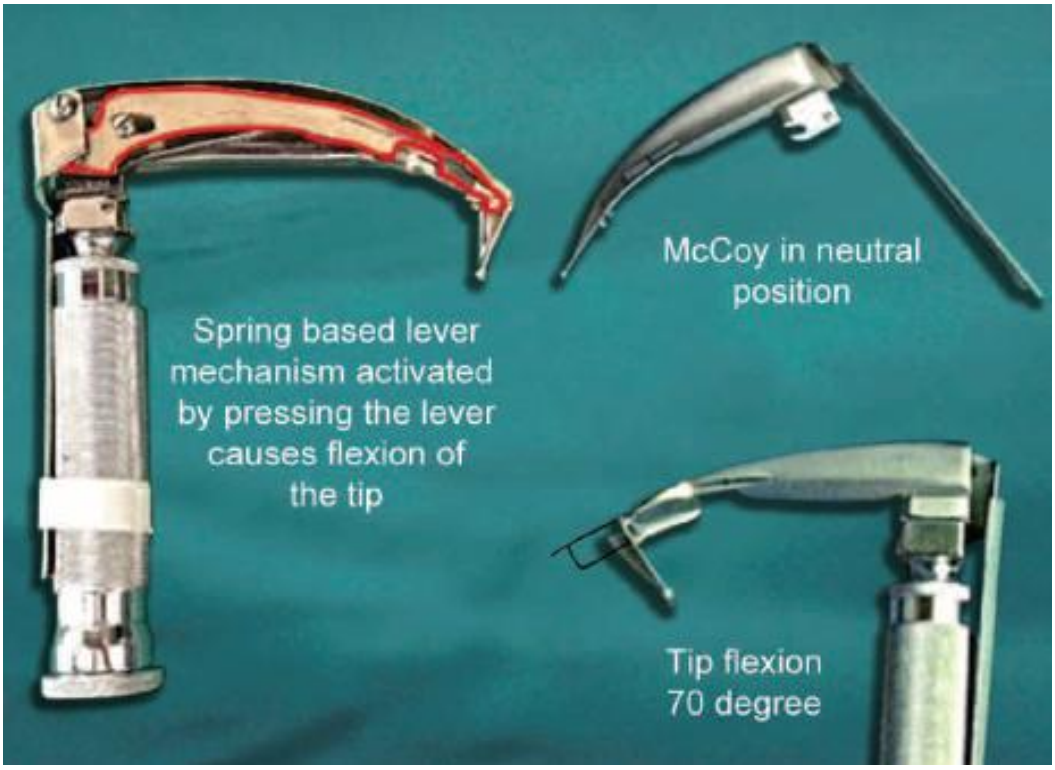
Types of laryngoscopes

1. Macintosh laryngoscope

2. Miller laryngoscope

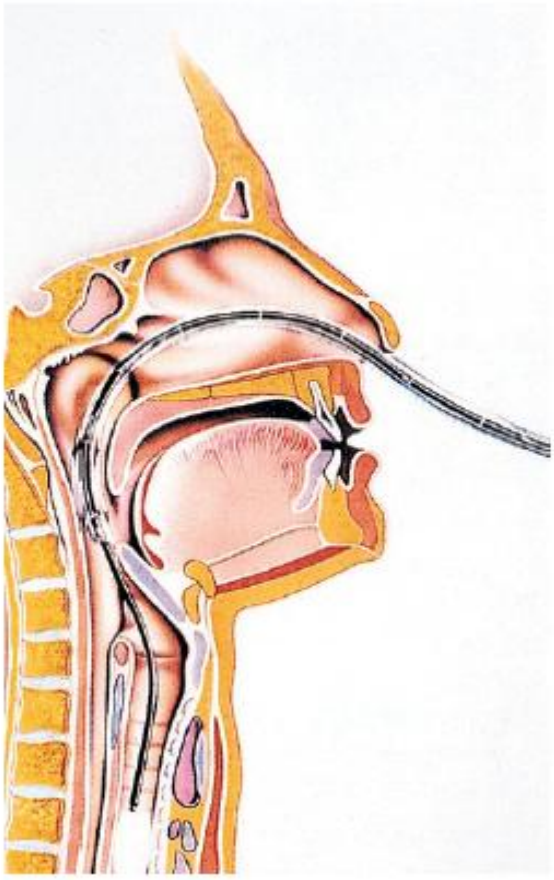
3. Polio laryngoscope

4. McCoy laryngoscope



5. Video Laryngoscopy

6. Fiberoptic laryngoscope



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