

Fiberoptic Bronchoscope in Relation to Anesthesia

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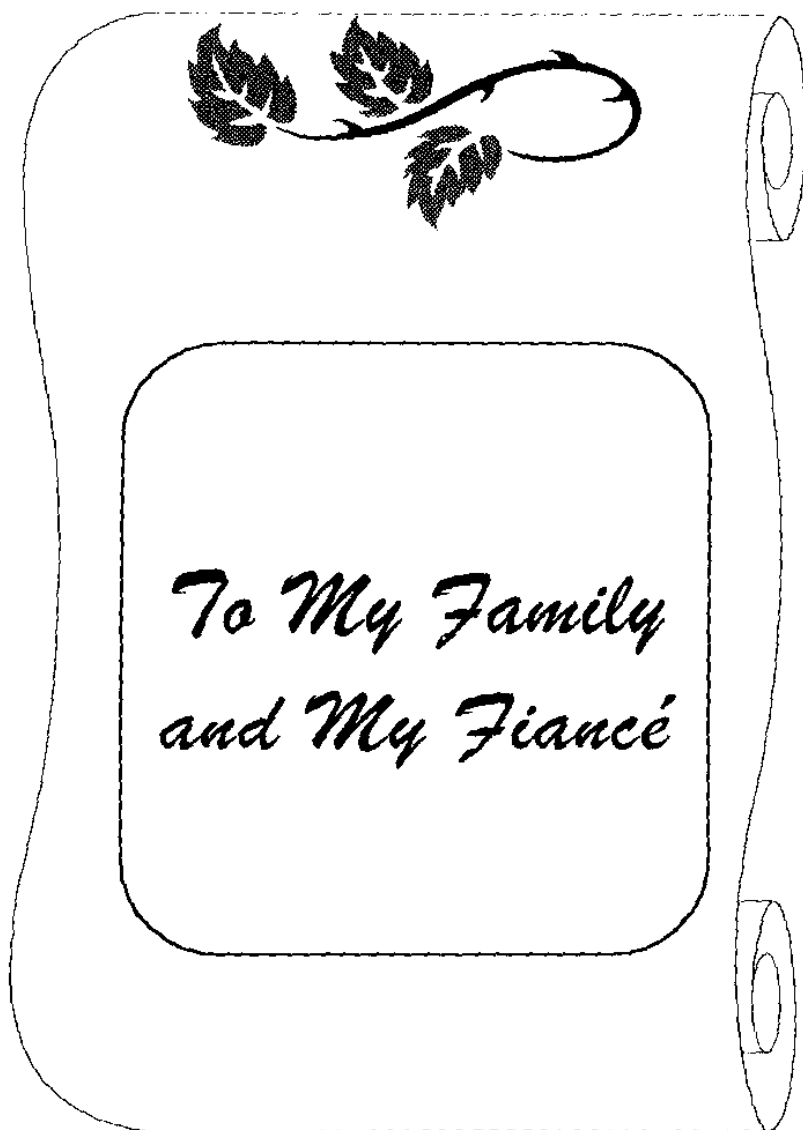
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Introduction

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Maintenance of a patent airway and intubation of the trachea depends on a knowledge of the anatomy of the upper airway and appropriate use of equipment and drugs (*Barash et al., 1990*).

Direct laryngoscopy as performed with the use of traditional laryngoscope has been a standard technique for tracheal intubation for decades. Using this technique, the vast majority of surgical patients can be intubated rapidly and atraumatically. Patients with abnormal airways, however, frequently present a significant obstacle to direct laryngoscopy and visualization of the glottis. A number of indirect techniques (e.g. blind nasotracheal intubation, retrograde wire insertion) have evolved in order to achieve tracheal intubation in patients with anatomically altered airways. These techniques are often time-consuming, unpredictable, and traumatic (*Ovassapian and Dykes, 1987*).

The development of flexible fiberoptic laryngoscopes in the 1970s has provided the anesthesiologist with a tool to manage abnormal airways with predictability and minimal trauma. The flexible fiberoptic laryngoscope is an instrument with which every modern anesthesiologist should be familiar (*Barlow, 1990*).

The first report of a successful flexible fiberoptic tracheal intubation was in 1967: a choledoscope was used as the endoscope for a nasotracheal intubation (*Murphy, 1967*). In 1972, a bronchoscope was used for awake tracheal intubations (*Taylor and Towey, 1972*).

Fiberoptic intubation is a technique in which every anesthesiologist should be competent. In experienced hands, the technique has been proven to be life-saving when managing patients with compromised airways (*Delaney and Hesseler, 1988*).

In this essay, I will discuss the anatomy and physiology of the upper airway, techniques, indications and teaching of fiberoptic intubation and bronchoscopy.

