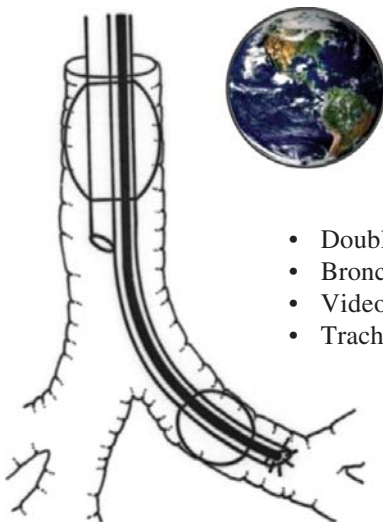


PROFESORES EXTRANJEROS
Vol. 32. Supl. 1, Abril-Junio 2009
pp S220-S226

Lung separation techniques for thoracic surgery

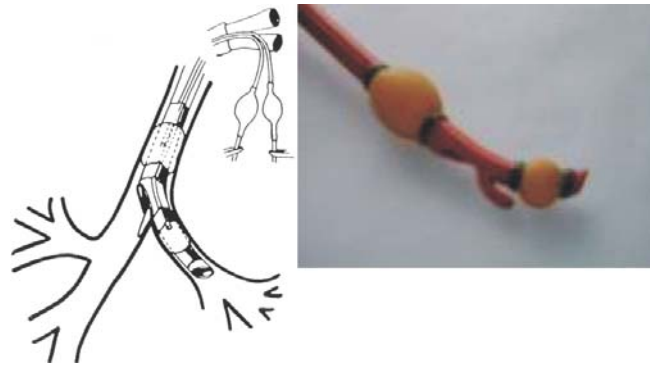
Peter Slinger MD, FRCPC*

*Dept. Anesthesia, University of Toronto



- Double-lumen tubes
- Bronchial blockers
- Video-laryngoscopy
- Tracheo-bronchial anatomy

CARLENS DOUBLE-LUMEN ENDOBONCHIAL TUBE



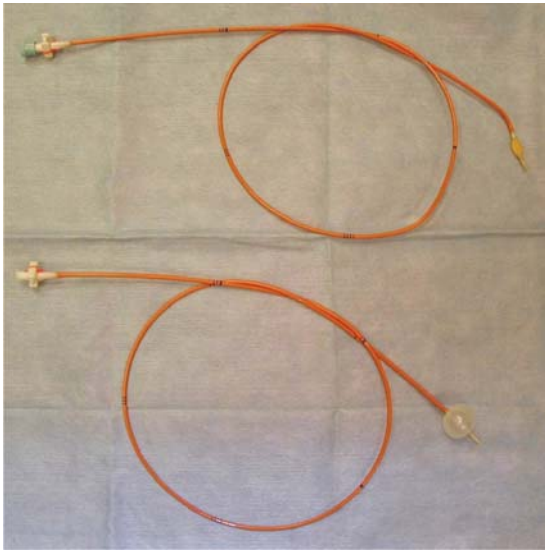
TECHNIQUES OF LUNG ISOLATION:

- Single lumen tubes
- Double-lumen tubes
- Bronchial blockers

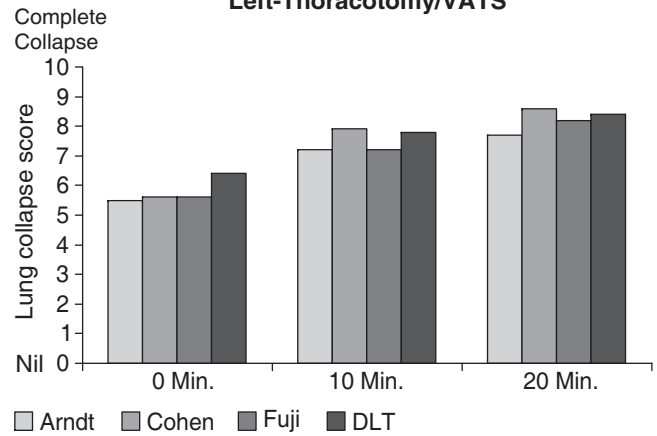
SINGLE LUMEN ENDOBONCHIAL TUBES



8 FR. FOGARTY VENOUS EMBOLECTOMY CATHETER, 10 CC BALLOON

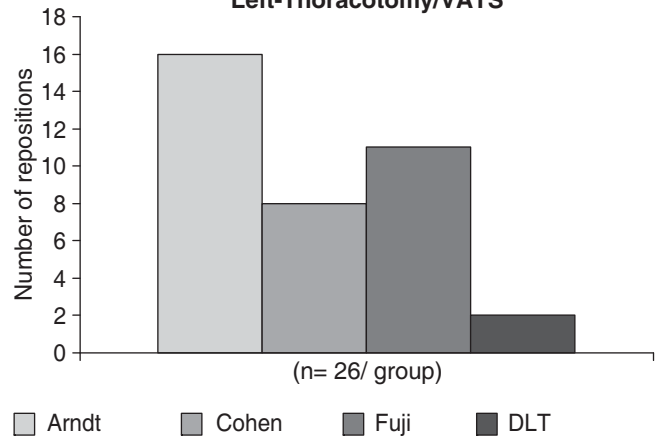


Bronchial Blockers vs. Left DLTs Left-Thoracotomy/VATS



Narayanaswamy M, et al. Anesth Analg 2009, 108: 1097-1101

Bronchial Blockers vs. Left DLTs Left-Thoracotomy/VATS



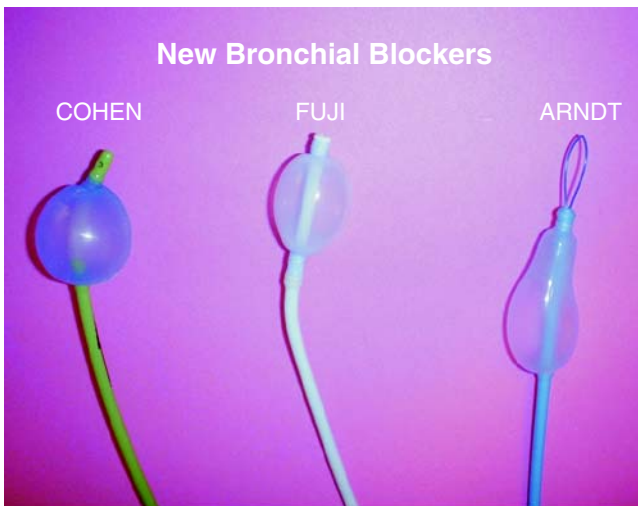
Narayanaswamy M, et al. Anesth Analg 2009, 108: 1097-1101

New Bronchial Blockers

COHEN

FUJI

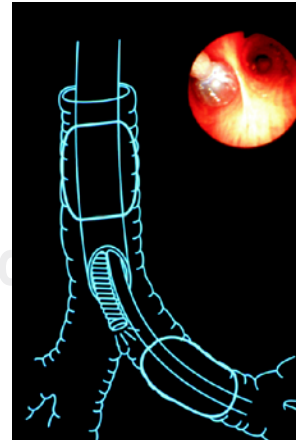
ARNDT



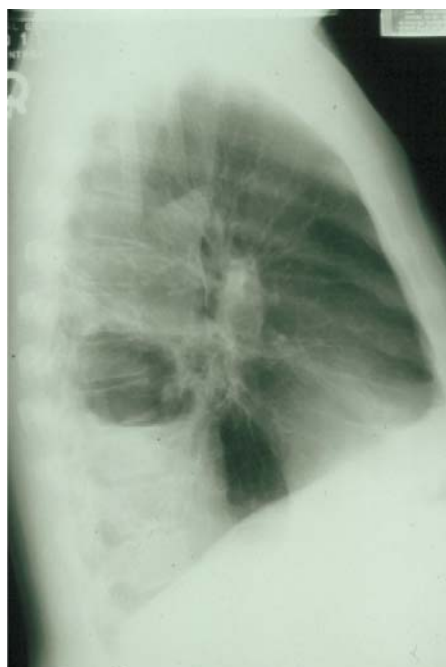
Elliptical

Arndt Blockers

Spherical



INDICATIONS FOR LUNG ISOLATION



Absolute:
Blood
Pus
Air

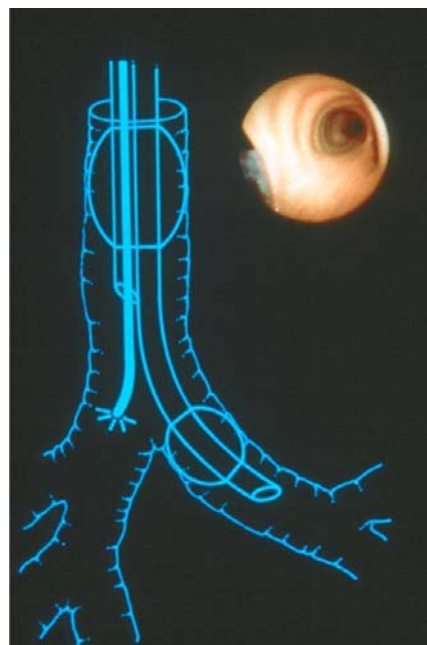
Relative:
Surgical
Exposure

*Surgical
Exposure*

Lung
Protection
Blood
Pus
Fluid

Ventilation
BPF
ILV

Devices for lung isolation used by anesthesiologists with limited thoracic experience.

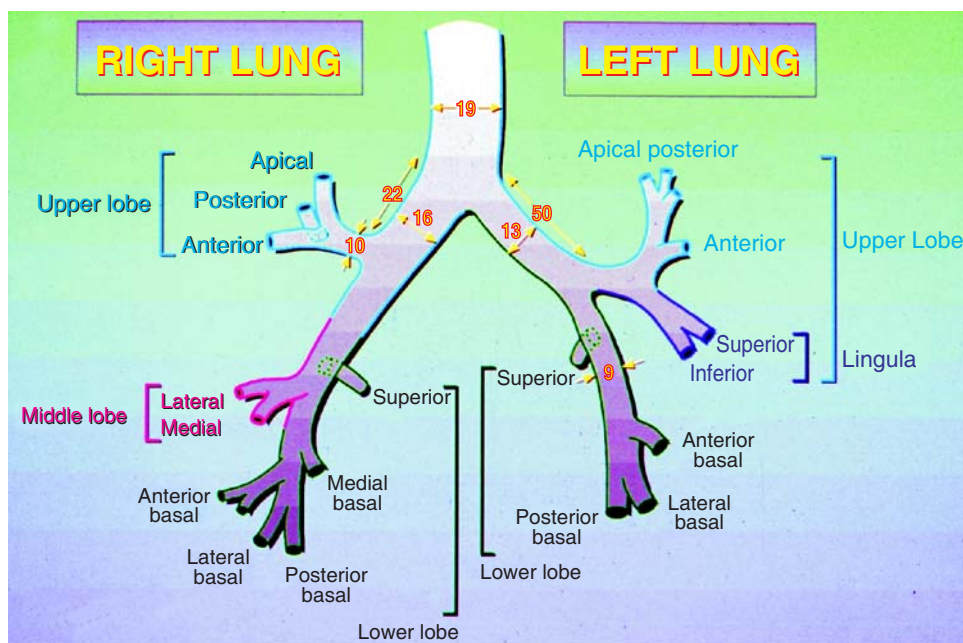


THE ABC'S OF LUNG ISOLATION

- Anatomy
- Bronchoscope
- Chest X-ray, CT Scan

Campos JH, et al. Anesthesiology 2006;104:261-6

«...the most critical factor in successful placement was the anesthesiologists knowledge of endoscopic bronchial anatomy»



LEFT DOUBLE-LUMEN TUBES

Clinical experience with 1,170 patients

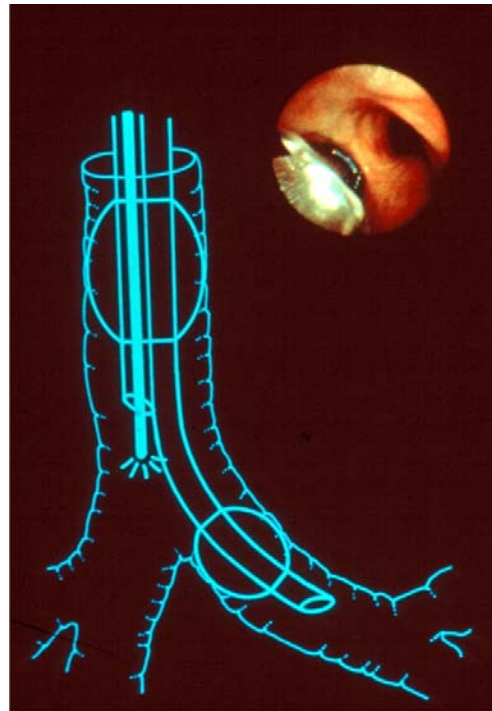


- Positioning of DLTs with auscultation and observation of chest wall movement
- «The authors find bronchoscopy unnecessary in the majority of patients and do not use it routinely»

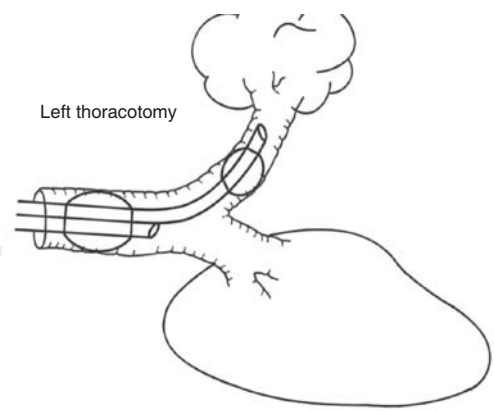
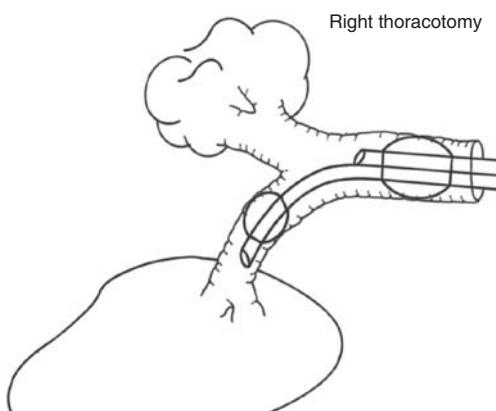
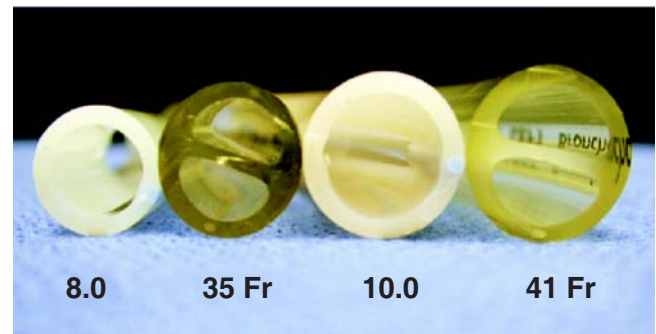
Brodsky JB, Lemmens HJM. JCVAnesth 2003;17:289-98

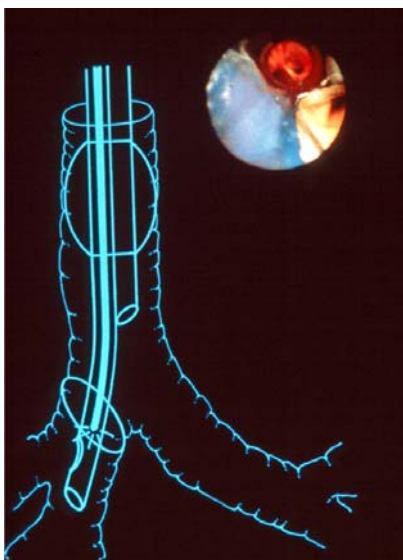
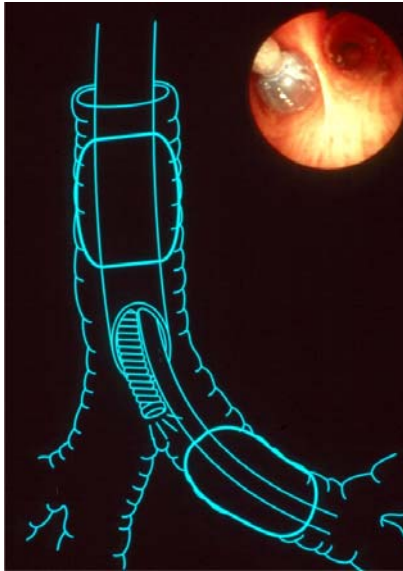
SUGGESTED SIZES FOR DOUBLE-LUMEN TUBES

Sex	Height	Size of tube (Fr)
Female	< 160 cm (63 in)	35
Female	≥ 160 cm	37
Male	< 170 cm (67 in)	39
Male	≥ 170 cm	41

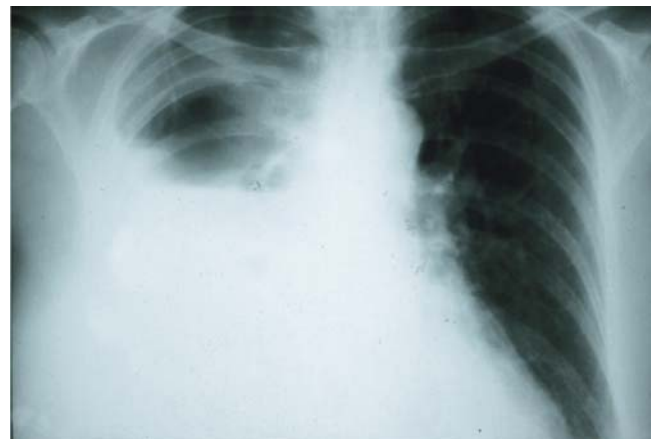


SINGLE -VS. DOUBLE-LUMEN TUBES IN CROSS-SECTION



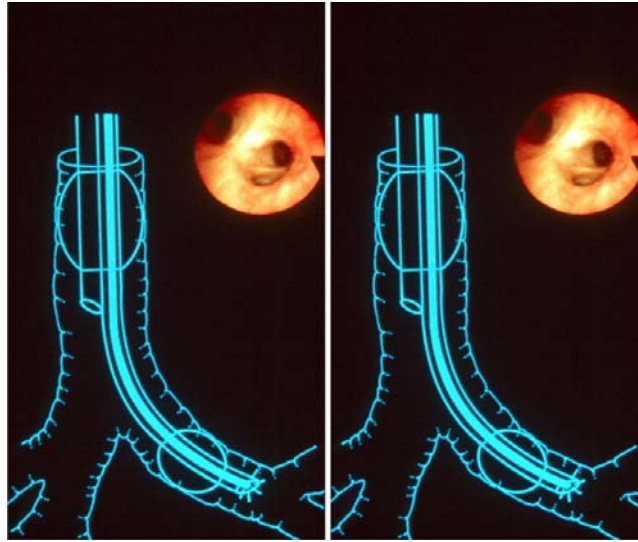


ANESTHESIA FOR ACUTE BRONCHO-PLEURAL FISTULA



70 y.o. female, day 7, post right pneumonectomy

- *Goals:*
Protect healthy lung
Avoid tension pneumothorax
Ensure adequate ventilation
- *Airway management:*
Single-, double-lumen, BB
- *Intubation:*
Awake, spont. vent., rapid sequence



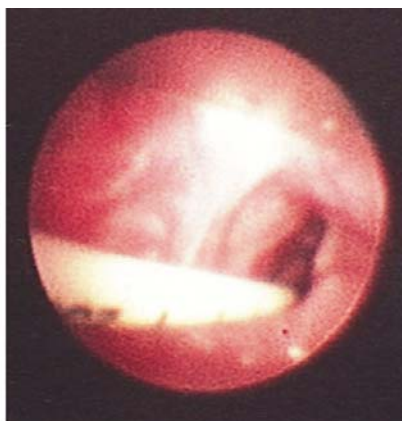
**62 Y.O. MALE, LEFT
LOWER LOBE LUNG
CANCER, PREVIOUS
FAILED INTUBATION**



**AWAKE FIBEROPTIC
DOUBLE-LUMEN
INTUBATION**



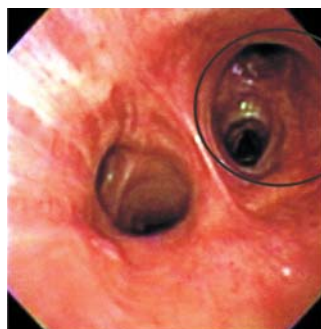
Glidescope



VIDEO LARYNGOSCOPE
+ AIRWAY EXCHANGE
CATHETER

www.thoracicanesthesia.com

THE STRUCTURE SEEN IN THE CIRCLE IS?



- A. Right bronchus intermedius
- B. Left upper lobe bronchus
- C. Left mainstem bronchus
- D. Right middle lobe bronchus
- E. Right upper lobe bronchus

Simulator
Link

