

Flexible Video Laryngoscope

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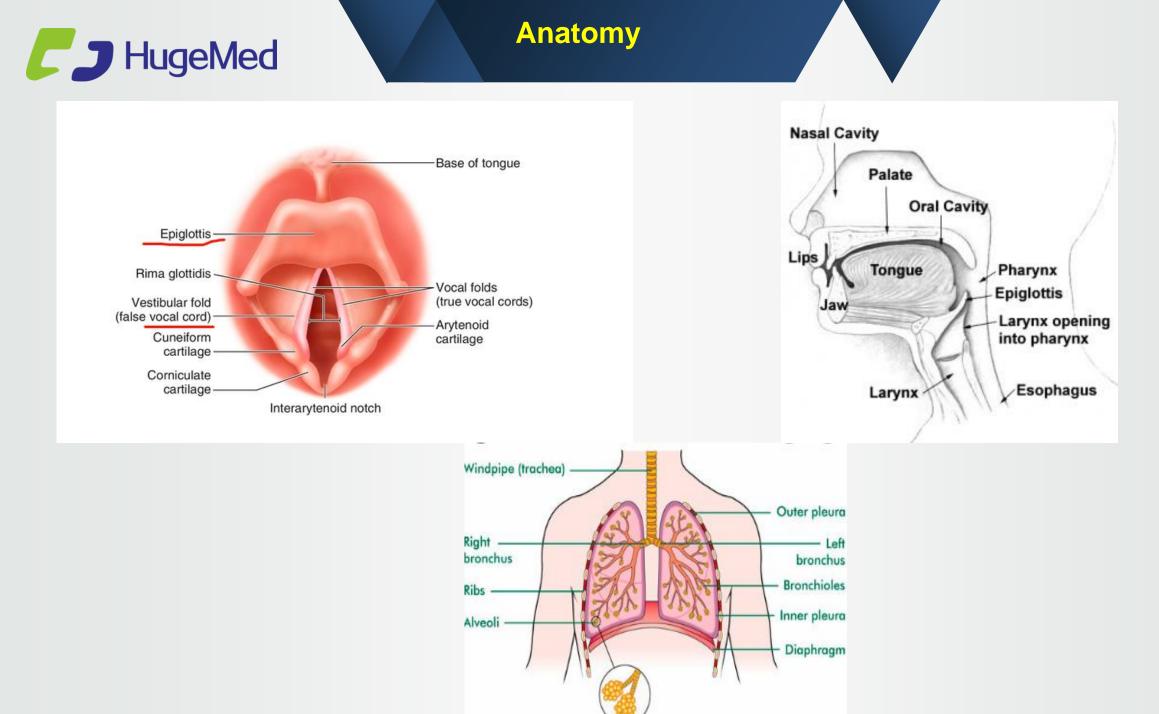
Clinical application



Endoscope

- Greek language endo- means "within, inside"
- Greek language Greek skopos; "to watch, look at"
- bronchoscope is a scope that doctor use to examine airways. through nose or mouth
- and down throat to reach your lungs.

Bronchoscopy is a procedure that lets doctors look at your lungs and air passages. During bronchoscopy, a thin tube (bronchoscope) is passed through your nose or mouth, down your throat and into your lungs.



VL3S

	Size	M58	M52	M39	M28			
	Illumination	LED						
Scope Body	Joint Outer Diameter	5.8mm	5.2mm	3.9mm	2.8mm			
	Instrument Chanel Inner Diameter	2.6mm	2.2mm	1.2mm	0mm			
	Working Lenth 650mm							
	Anti-Fog	Anti-fog when it's on, no need for preheating.						
Operating system	m、Software System upgrades are f	ree for life						
	Size 3.5inch/8inch							
	Storage	8GB SD Card						
	Shoot	Support						
Display	Video Record	Support						
	White Balance	Support						
	Freeze/Backwards	Support						
	Video Synchronous Out put	Support						



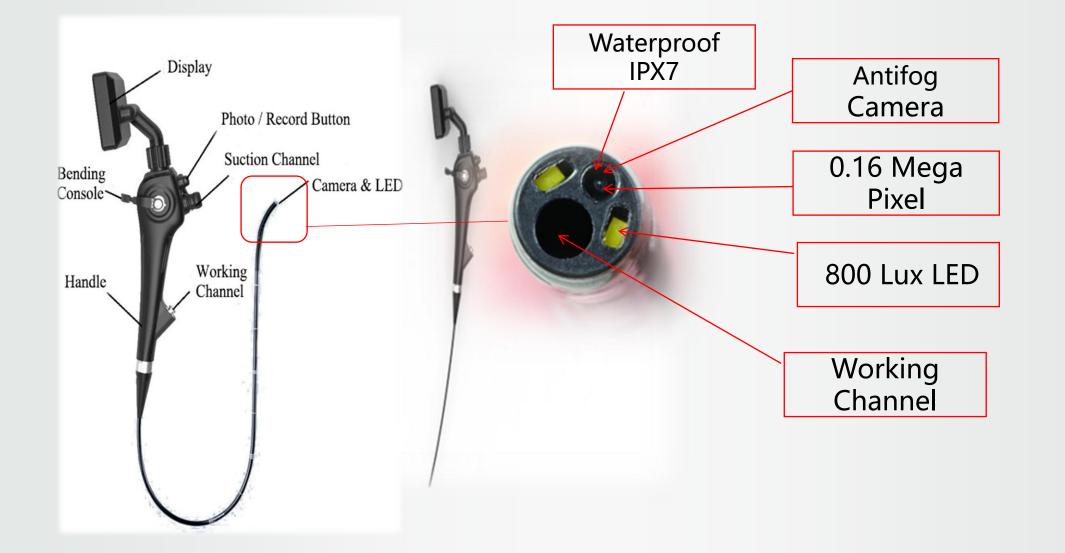
Note: * M28/M39 is not applicable for endoscopic diagnosis and treatment accessories.

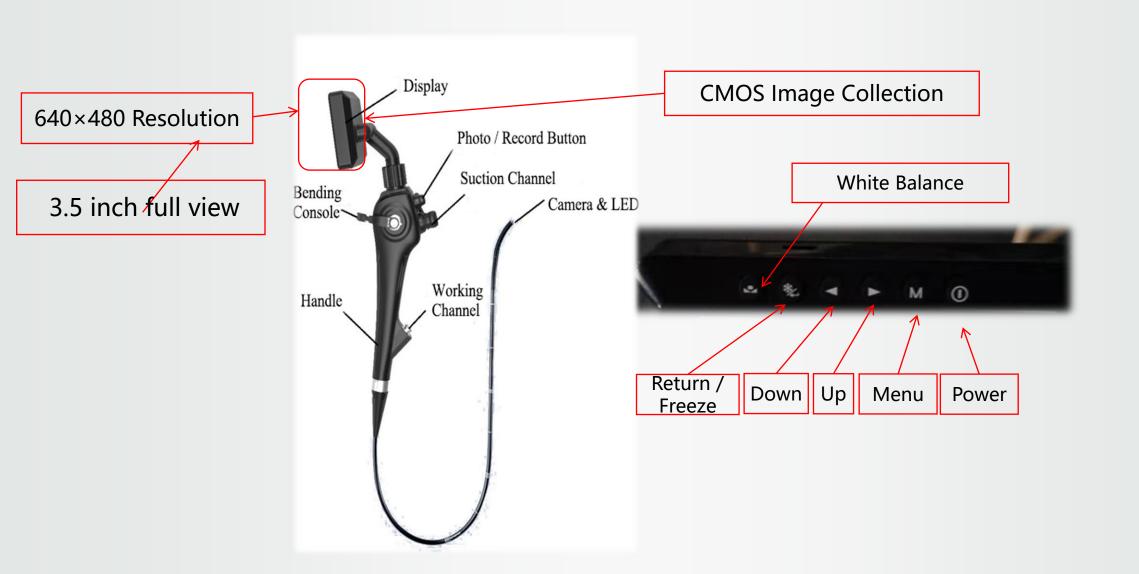
* M28/M39/M52/M58 is not suitable for high-frequency electrotherapy surgery and laser hemostasis.

* Continuous working time in more than two hours, but it depends on ambient temperature and battery condition.

J HugeMed

VL3S





VL3S

HugeMed

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Options:

- 8" display
 - Trolley



VL3S

		Pentax		HugeM	ed	5	Olympus				
Model	Image		CPY -				r				
	Model No.	10 BS	13 BS	16 BS		VL3S			LF-GP	LF-TP	
Ontinglandary	Field of view	85°	95°	95°		9	0°		90°		
Optical system	Depth of field	30-50mm	30-50mm	30-50mm		3-50)mm		4-50mm	3-50mm	
	Distal end outer diamete	Ф3.4mm	Φ4.1mm	Φ5.1mm	Ф2.8 mm	Φ3.9 mm	Φ5.2 mm	Φ5.8mm	Φ4.1mm	Φ5.2mm	
Insertion tube	Insertion tube outer diameter	Ф3.5mm	Ф4.2mm	Ф5.2mm	Ф2.8mm	Φ3.9 mm	Φ5.2 mm	Φ5.8mm	Ф3.8mm	Ф5.1mm	
insertion tube	Insertion section working length	300mm	600mm	600mm	650mm 650mm 650mm 650mm			600	mm		
	Flectional	1	1	1	Yes Yes Yes			Yes	/		
Working channel	channel inner diameter	Ф1.4mm	Φ1.8mm	Ф2.6mm	0	Φ1.2mm	Ф2.0mm	Φ2.2mm	Φ1.5mm	Ф2.6mm	
Panding castion	up/down	130°/130°	160°/130°	160°/130°	160°/130°				120°/120°	180°/130°	
Bending section	left/right										
Waterproof	terproof IPx7							IPx7			
	Resolution	1	1	1		320	*240		1	1	
Display part	Resolution / / / Screen / / / /		3.5" TFT LCD screen				1				
propriet part	Color				True color						
	Shoot Image/Video	/	/	1	Yes				/	/	

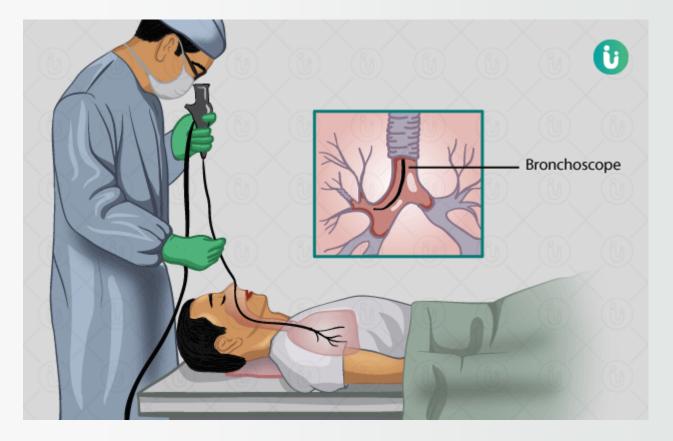


- Airway check (pulmonary)
- Intubation (anesthesia/ ICU/ ER)
- Placement and positioning of DLT & BB (anesthesia/ ICU/ OR)
- ◆BAL & BW (pulmonary)
- Management of retained secretion (ICU)
- Biopsy (pulmonary)
- ◆PDT (anesthesia/ ICU)



Airway check (pulmonary)

- Foreign body
- Abnormal bleeding
- Tumor
- Post surgery recovery evaluation





Intubation (anesthesia/ ICU/ ER)

- Why flexible bronchoscope?
- Which size is the best?
- block?
- Nasotracheal Intubation?
- position?

	PORTE	x									smuths medi https://www.ag.with
Tr	acheal T	ubes - A	A Guide	To Size a	and Leng	th					
		Tracheal Tube ID (mm)	Tracheal Tube OD [mm]	Oral length (cm)	Nasal length (cm)		nmended x15en eter size (mm)	NOTES [1] The dimensions given for Final selection is the resp and the design of the tred [2] This chest makes no recor-	analality of the	e clinicles and	ell depend on anatomy
	0.7-1.0kg	2.5	3.4	7.5	9.0	5	1.67	unerwith trached tales he (3) Cere must be taken when			
	1.1-1.5kg	2.5	3.4	8.0	9.5	5	1.67	order to ensure sreach in (8) External diameter dimensi	nortian and n	enced of the su- to to Silicorized	ction catheter. and Clear PVC tranheal
5	1.6-2.0kg	3.0	4.2	8.5	10.0	6	2.0	tubes, hory PVC Blue Line	tracheal tub	or have a larger	oternal dameter.
ONAT	2.1-2.5kg	3.0	4.2	9.0	10.5	6	2.0	REFERENCES [1] Singh NC et al, Physiologi	of response	to endstructure	and and sustaining
2	2.6-3.0kg	3.0	4.2	9.5	11.0	6	2.0	in parellabric patients: the pressures, 2021; 2: 305-32	influence of a	relativecheal tak	e sizes and suction
	3.1kg+	3.0	4.2	10.5	13.0	6	2.0	[2] A Sprepain of Assemblania Publishers John Wright, 1	by R.S.Akiw 993	ur, GRBahr	an and J Alfred Lee,
	0-3 months	3.5	4.8	11.0	14.0	6-8	2.0-2.67	Portex [®] Cuff Resti	ng Diame	ter (mm)	
	3-6 months	4.0	5.4	12.0	15.0	8	2.67	Profile Soft-Seal®	Profile	Barrel	
	6-12 months	4.5	6.2	12.5	15.5	8	2.67	Cuff	Cuff	Cuff	
	2 years	5.0	6.8	13.0	16.0	10	3.33	17	15	22	
	3 years	5.0	6.8	13.5	16.5	10	3.33	17	15	22	
	4 years	5.5	7.4	14.0	17.0	10	3.33	17	17	22	
5	5 years	5.5	7.4	14.5	17.5	10	3.33	17	17	22	
E	6 years	6.0	8.2	15.0	18.0	10	3.33	23	19	24	
PAEDIATRI	7 years	6.0	8.2	15.5	18.5	10	3.33	23	19	24	
2	8 years	6.5	8.8	16.0	19.0	10	3.33	23	20	24	
	9 years	6.5	8.8	16.5	19.5	10	3.33	23	20	24	
	10 years	7.0	9.6	17.0	20.0	10	3.33	30	22	26	
	11 years	7.0	9.6	17.5	20.5	10	3.33	30	22	26	
	12 years	7.5	10.2	18.0	21.0	12	4.0	30	23	26	
	13 years	7.5	10.2	18.5	21.5	12	4.0	30	23	26	
	14 years	8.0	11.0	21.0	24.0	12	4.0	30	25	28	
	15 years	8.0	11.0	21.0	24.0	12	4.0	30	25	28	
	Adult Female	7.5	10.2	21.0	24.0	12	4.0	30	23	26	
	Adult Female	8.0	11.0	21.0	24.0	12	4.0	30	25	28	
90	Adult Male	8.5	11.6	22.0	25.0	12	4.0	30	26	28	
B	Adult Male	9.0	12.2	22.0	25.0	14	4.67	30	28	30	Smiths Medical International Ltd Hythe, Kent CT21 6JL UK
¥	Adult Male	9.5	13.0	23.0	26.0	14	4.67	30	30	30	Tel. +44 (0)1303 240551
This	thert recommends the sk	n d'apen suction ce	abuter that should be	und with Parter® To	acheal Talan. When using						Fax: +44 (0)1303 266761
	and Suction System, the r		ter size will be stated adornarity of the Smith								www.smiths-medical.com Smiths Hedical.com set to a state a state of the set o

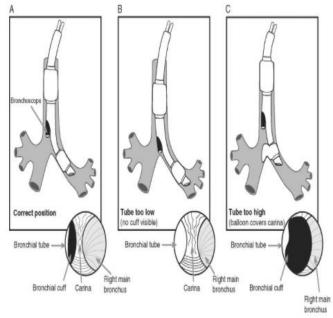
Flexible fibreoptic bronchoscope assited intubation in cervical spine injury case



Placement and positioning of DLT & BB (anesthesia/ ICU/ OR)

• double-lumen tube (DLT) bronchial blocker

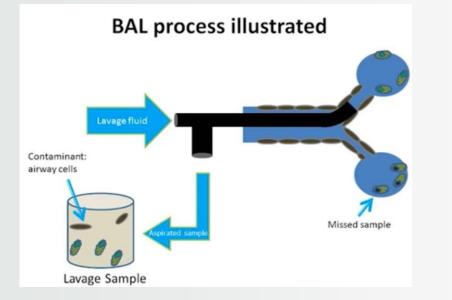
Unilateral lung patients with severe disease, or need to unilateral lung resection treatment, you will need to double lumen endotracheal intubation, to the patients with single lung ventilation, make the contralateral lung in patients with preserved, and make the side relatively isolated lung, such as patients treated for specialist requires the right lobectomy, can give patients with double lumen endotracheal intubation, left lung one-lung ventilation





BAL & BW (pulmonary & ICU)

- Bronchoalveolar lavage and bronchial wash?
- Remove alveolar deposits and inflammatory secretions, improve respiratory function
- Bacterial culture can provide diagnostic value for infectious tumors

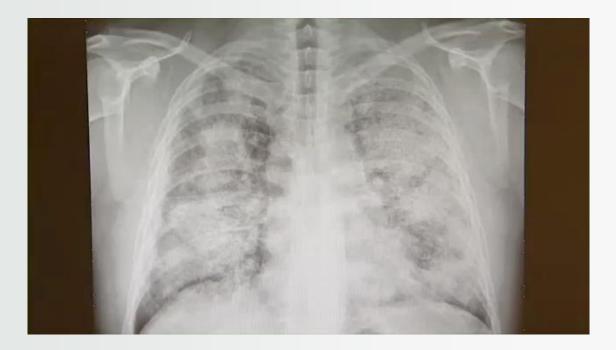






Management of retained secretion (ICU)

- Sputum
- Portable





Biopsy (pulmonary)

Lung biopsy is suitable for the diagnosis of tumors located at the periphery of the lungs. When the lung biopsy finds tumor cells in the pathological examination, it can be confirmed as tumor; when the pathological examination shows tuberculosis granuloma, it can be confirmed as tuberculosis; when the pathological examination shows inflammatory lesions, it is considered as

pneumonia



Flexible Bronchoscopy and Biopsy





Percutaneous dilational tracheostomy (PDT)

Laryngeal obstruction, removal of foreign body

Clinical significance: Visualized, the atmospheric duct can be monitored throughout the whole process. The puncture depth of the puncture needle, the insertion depth of the skin expander, the direction of the guide wire, the entry depth of the tracheotomy forceps and the expansion degree can be seen throughout the whole process.



Single use bronchoscope

Why single use bronchoscope

- Always available
- Eliminate cross contamination
- Cost effectiveness
- Improve workflow

Occasion to use?

- Infectious disease
- Reusable inaccessible
- Personnel shortage
- Anticipated damage



THANKS