

MW28



## Lung Sound Auscultation Trainer "LSAT" ver.2

**Used by 96% of medical faculties in Japan,  
LSAT is now renewed and improved!**

In just a few taps away, improve lung assessment skills by combining theory and practice with real lung sound recordings and case information.

**Product Supervision**

Chiharu Yoshii, M.D., Ph.D.,  
Assistant Professor  
Masamitsu Kido, M.D., Ph.D., Professor  
Division of Respiratory Disease, University  
of Occupational and Environmental Health,  
Japan



\* A stethoscope is not included.

**CASES**

Background heart sounds are available in 5 volume levels.

Normal	
A01	standard
A03	mildly strong sounds
A05	mildly rapid
A07	loud heart sounds

Coarse crackles	
C01	right lower area
C03	both lower area
C05	right upper and middle area
C07	left lower area
C09	both upper area
C11	whole area

Wheezes	
E01	upper area 600-700Hz
E03	upper area 350-450Hz
E05	upper area 200-1000Hz

Miscellaneous continuous sounds	
G01	stridor
G03	squawks

Abnormal	
B01	weak: left lower area
B02	weak: left whole area (adhesion)
B05	weak: left whole area(pneumothorax)
B07	absent: right middle and lower areas
B09	weak: right whole area
B11	absent: right whole area
B13	weak: whole area
B15	bronchial breathing

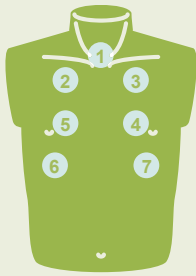
Fine crackles	
D01	both lower area
D03	both middle lower area
D05	whole area (IPF)
D07	whole area (NSIP)

Rhonchi	
F01	trachea and upper area 150-250Hz
F03	trachea and upper area 150-450Hz (polyphonic)
F05	trachea and upper area 80-120Hz
F07	whole area 80-200Hz

Miscellaneous	
H01	pleural friction rubs: right lower and middle area
H03	pleural friction rubs: left lower area
H07	Hamman's sign
H09	Vocal fremitus

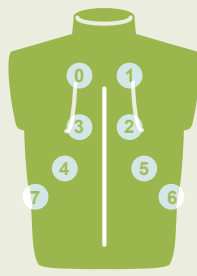
**KEY FEATURES**

**Basic Features**



**Anterior**

1. trachea
2. upper right lung field
3. upper left lung field
4. middle left lung field
5. middle right lung field
6. lower right lung field
7. lower left lung field

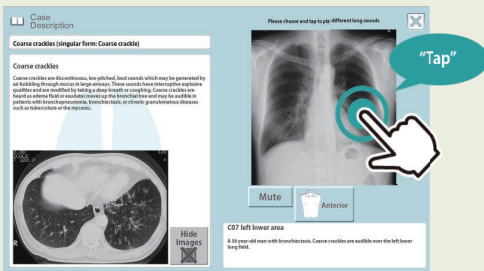


**Posterior**

1. upper left lung field
2. upper right lung field
3. middle right lung field
4. middle left lung field
5. lower left lung field
6. lower right lung field
7. right costophrenic angle
8. left costophrenic angle

**Case Information**

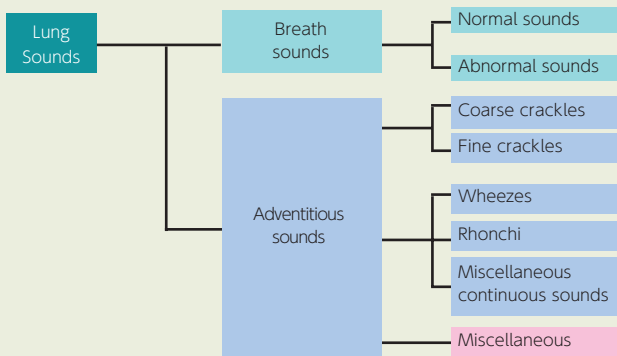
Images of plain X-ray, CT and bronchoscopy are included.



Lung sound of each area can be played by tapping the plain X-ray image

**Classification of Lung Sounds**

Based on acoustic analysis of recorded lungs sounds, each are classified according the American Thoracic Society standards. With this approach, lung sounds are categorized as continuous (wheezes, rhonchi, or stridor) or discontinuous (crackles). Crackles are further identified as fine or coarse.



**NEW Features**



**Wireless multi-unit operation**

Up to five "LSAT" can be controlled by one wireless control PC.



- Each simulator can be individually programmed
- Cases can be switched at any time with a simple touch



**Simultaneous anterior and posterior auscultation**

Two or more trainees can work together at the same time



**LED light panel to indicate inspiration and expiration**

Attention to respiration rate while auscultating during examination



**Create a custom playlist**

With 36 different cases. Playlist mode enables optimization of training sessions.



**Error Indication System**

The error indicator performs check-up of the system to keep LSAT in its best condition.

**DESCRIPTIONS**

**SPECIFICATIONS**

Size: 39x39x130cm /15.3x15.3x51.2 inch  
 Power: AC100V-240V 50/60Hz  
 Power Consumption: 180W

**MATERIALS**

Soft resin  
 Latex free

**SET INCLUDES**

- 1 LSAT2 main unit
- 1 control PC
- 1 LSAT T-shirt
- 1 instruction manual