





# Lung Sound Auscultation Trainer LSAT Version II

## Used by 96% of medical faculties in Japan

Improve lung assessment skills by combining theory and practice with real lung sound recordings and case information

#### **Product Supervision**

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\* 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	stridors	
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	

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	

Hamman's sign Vocal fremitus



### **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

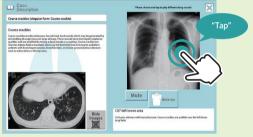


#### **Posterior**

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

### **Case Information**

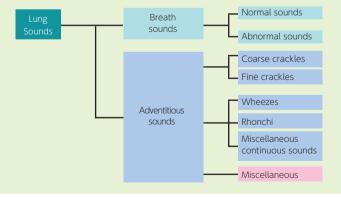
Images of plain X-ray, CT and bronchoscopy are included



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 lung sounds, each one is classified according to the American Thoracic Society's 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 tablet



- 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**

Playlist mode with 36 different cases enables optimization of training sessions  $\,$ 

SPECIFICATIONS
Size: W39 x D49 x H127 cm
W15.3 x D19.3 x H50 in.

Power: AC100V-240V 50/60Hz Power Consumption: 180W MATERIALS
Soft resin

Latex free

## DESCRIPTIONS SET INCLUDES

- 1 LSAT Version II main unit 1 external speaker incl.
- 1 tablet
- LSAT T-shirt
- 1 instruction manual