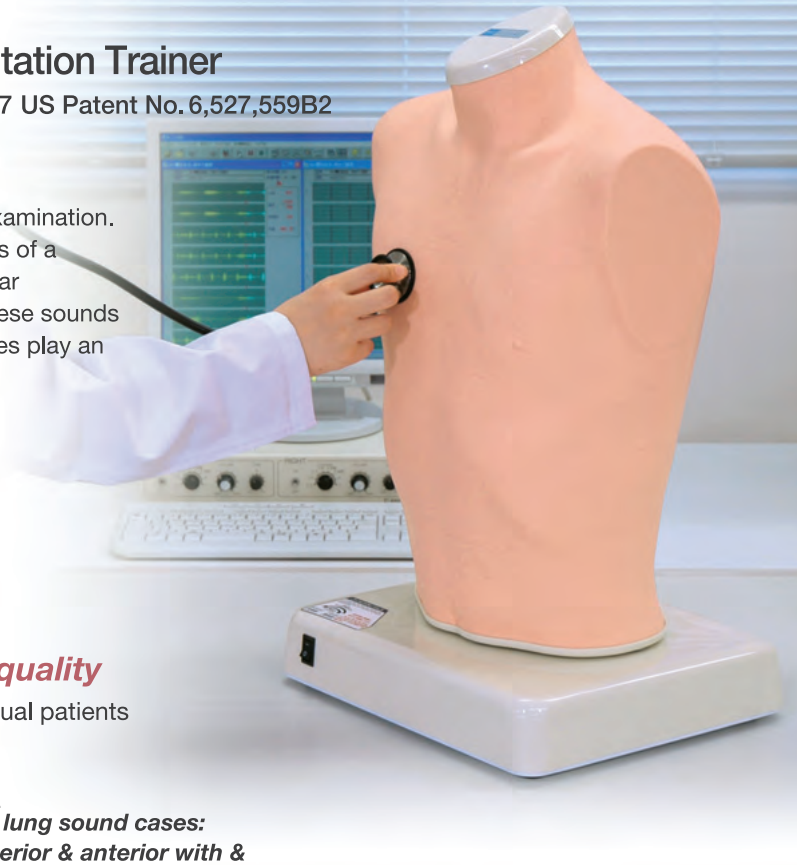
M81-S CE

"LSAT" Lung Sound Auscultation Trainer

Japanese Patent No.3626087 US Patent No. 6,527,559B2



Lung sound auscultation is one of the essential steps in chest examination. This skill requires three areas of expertise: listening to the sounds of a patient's chest with precise use of the stethoscope, having a clear understanding of sound variations and being able to describe these sounds clearly to others. Relations between sounds and auscultation sites play an important role in giving a diagnosis.

Production supervision:

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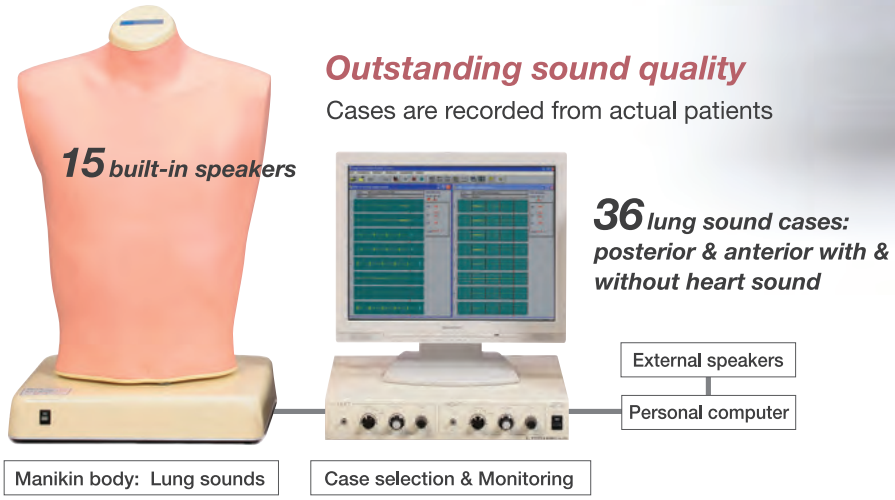


Outstanding sound quality

Cases are recorded from actual patients

***36** lung sound cases: posterior & anterior with & without heart sound*

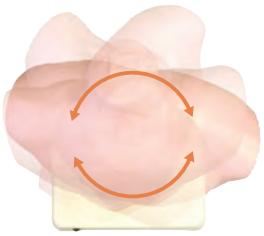
Natural propagation of the sounds

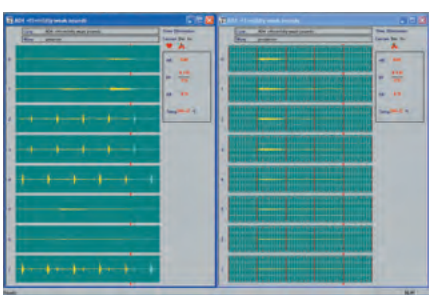
15 speakers are located in the torso manikin (seven in the anterior, eight in the posterior), each speaker playing back sounds specific to each area. Speakers are completely synchronized.

Monitoring and self-learning

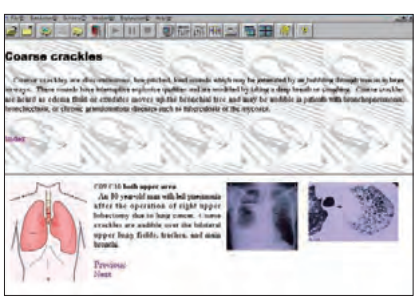
Sounds can be monitored graphically. The sound volume, the rate of respiration and the operating time are all controllable. This expands variety of training options. Explanation windows for each case offer general descriptions and clinical data on individual cases including patient histories, illustrations, radiographs and CT images.

The torso rotates on a base, allowing examination of both the front and back as in a real clinical procedure.





Monitoring Window



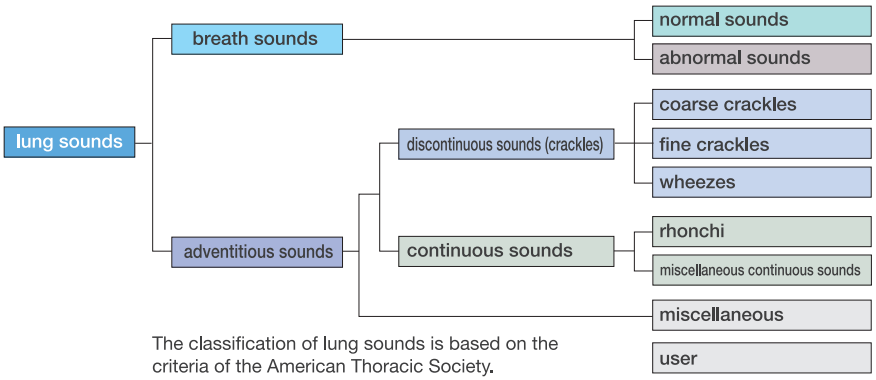
Explanation Window

Skills &Training

35 lung sound cases and one example of vocal fremitus are prepared.

Each case has 2 variations, with and without heart sounds.
(exceptions: normal with loud heart sounds, Hamman's sign)

Classification of lung sounds



The classification of lung sounds is based on the criteria of the American Thoracic Society.

NORMAL	standard
	mildly weak
	mildly strong
	mildly rapid
	loud heart sounds
ABNORMAL	weak: left lower area
	weak: left whole area
	absent: left
	weak: right lower area
	weak: right lower area
	absent right
	weak: whole thorax
	bronchial sounds
COARSE CRACKELS	right lower area
	both lower area
	right middle area
	left lower area
	both upper area
	whole thorax
FINE CRACKES	both lower area
	both lower and middle area
	whole thorax 1
	whole thorax 2
WHEEZES	upper and middle area
	around trachea and upper area1
	around trachea and upper area2 (polyphone)
RHONCHI	trachea and upper area
	trachea and upper area (polyphonic)
	with an inspiratory wheeze
	whole thorax
MISCELLANEOUS CONTINUOUS SOUND	stridor
	squawk
MISCELLANEOUS	pleural friction rub: left lower area
	pleural friction rub: right lower and middle area
	Hamman's sign
	Vocal fremitus (palpable at both sides of the chest)

15 built-in speakers reproduce lung sounds

with natural propagation and sound transition across the chest wall.

Anterior

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

Posterior

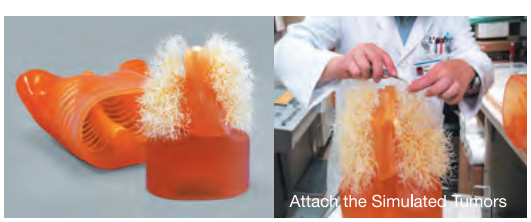
⓪ upper left lung field
① upper right lung field
② middle right lung field
③ middle left lung field
④ lower left lung field
⑤ lower right lung field
⑥ right costophrenic angle
⑦ left costophrenic angle

Radiography

Multipurpose Chest Phantom N1

"LUNGMAN" PH-1

This is a multipurpose phantom which is applicable for both plain radiography and CT scanning.The inner components consisting of mediastinum, pulmonary vasculature and an abdomen block are easily detachable, allowing insertion of mimic tumors or other lesions.



Plain Radiography | Computed Tomography

Lung Sound Auscultation Trainer "LSAT" M81-S CE

Set includes:

1 LSAT model unit
Torso with rotary base
15 built-in speakers, 8 ch. amplifier
size: 32 x 35 x 62 H cm
packing size: 52 x 47 x 80 cm, 10 kg

1 amplifier
size: 32 x 35 x 8 H cm
packing size: 46 x 47 x 14 cm, 8 kg

2 speakers
packing size: 56 x 45 x 54 cm, 18 kg

1 T-shirt

1 PC
Windows XP, 12ch. D/A PCI board,
mouse, 112 keyboard, 17" TFT monitor
software & data installed
packing size: 59 x 59 x 40 cm, 15 kg

Optional parts

11241-090
manikin carrying case for "LSAT"

Specifications are subject to change.

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