

Multipurpose Chest Phantom N1 "LUNGMAN"

Product No. PH-1



*Optional chest plates to simulate a larger body type

Multipurpose

Applicable for both plain radiography and CT scanning.
Wide variety of uses in interpretation training, anatomical education, evaluation and assessment of devices and other research.

Accurate anatomy and high quality substitute materials

The phantom is an accurate life-size anatomical model of a human torso. The thickness of the chest wall is based on measurement of clinical data. The soft tissue substitute material and synthetic bones have x-ray absorption rates very close to those of human tissues.

X-ray

The phantom provides life-like radiographs very close to actual clinical images. The three-dimensional structure allows both PA and LATERAL images to be obtained. The phantom bones and vessels show life-like contrast gradations on the image along with tube voltages.

Computed tomography

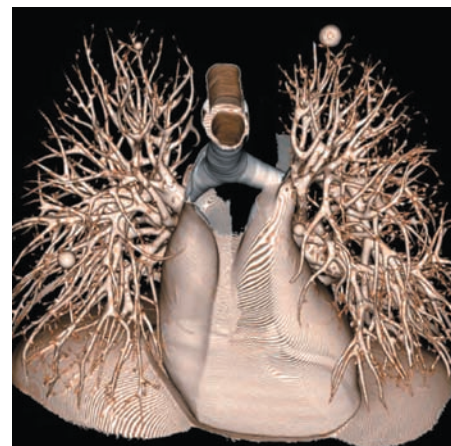
Arms-abducted position of the torso suits the CT scanning.
The pulmonary vessels are spatially traceable.
Assessment of computer-aided detection systems is possible.

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.

The unique radiological substitute material and the elaborate three dimensional modeling of pulmonary vessels offer the most life-like X-ray and CT images. A combination of various approaches will enrich the training opportunities.

Production supervision:

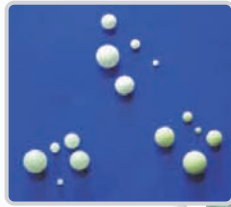
Kiyoshi Murata, Ph.D Professor
Norihsa Nitta, Ph.D
Shiga University of Medical Science



3D reconstruction of CT data

"LUNGMAN" Training

Attach the simulated tumors



Simulated tumors



Computed tomography

- CT scan training
- Interpretation training
- Assessment of computer-aided detection systems

CT

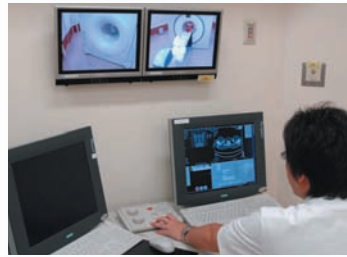
PLAIN X-RAY

Plain radiography

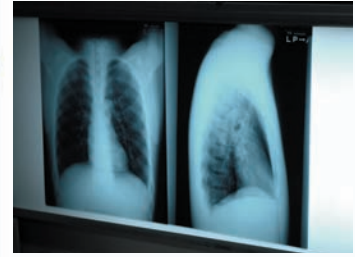
- Radiograph training
- Interpretation training
- Assessment of tube voltages, films and other devices



Comparison



Review the plain X-ray



INTERPRETATION
Improve interpretation skills

 KYOTO KAGAKU

3109 Lomita Boulevard, Torrance, CA 90505-5108, USA

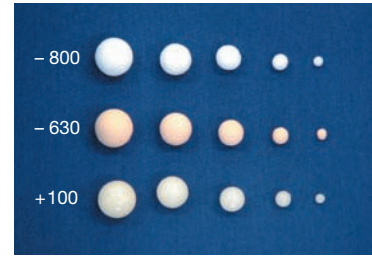
Tel: 1-310-325-8860

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www.kyotokagaku.com

rw-kyoto@kyotokagaku.co.jp

Attach the simulated tumors



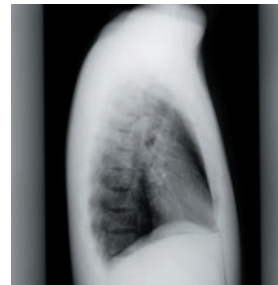
Simulated tumors in five-size and three-HU-number variations can be attached to arbitrary position in the lung field.

Plain X-ray

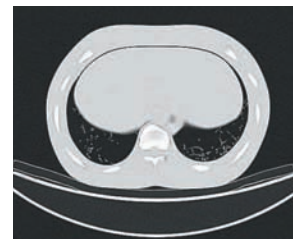
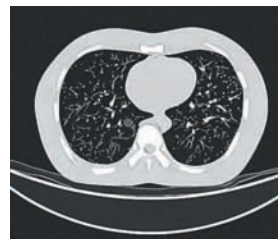
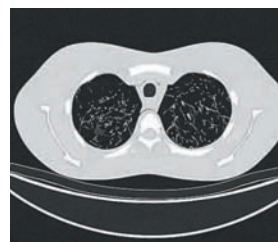
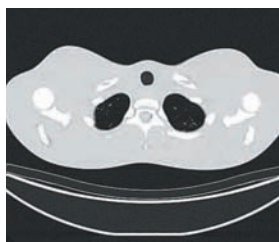
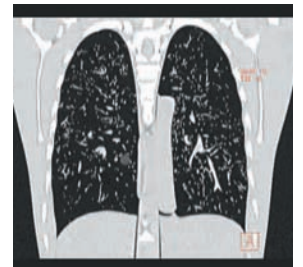
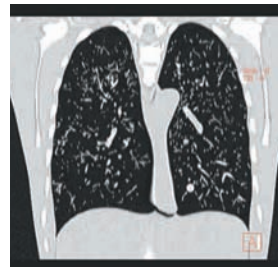


Applicable for both plain radiography and CT scanning.

The phantom bones and vessels show life-like contrast gradations on the image along with tube voltages. The pulmonary vessels are spatially traceable with CT.




CT

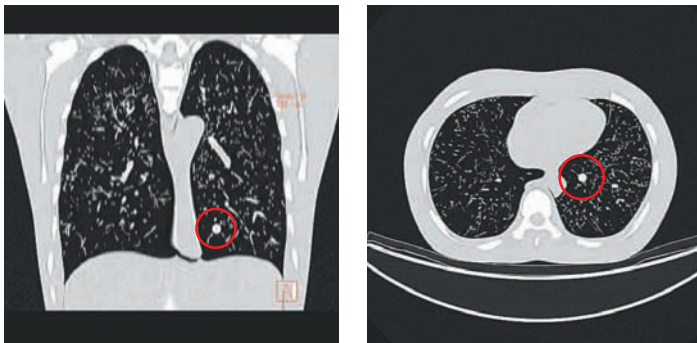


Comparison

X-Ray Image  Simulated tumors (HU# 100)



CT Image  Simulated tumors (HU# 100)



Comparison between Plain X-ray and CT, as well as between these images and the direct observation of the phantom, helps trainees to have three dimensional understanding and to improve X-ray interpretation skills.



Improve interpretation skills

Multipurpose Chest Phantom N1 "LUNGMAN" PH-1



Set Includes:

- 1 male chest torso
- main body: synthetic bones are embedded
- internal parts: separates into four parts
- mediastinum: heart, trachea
- pulmonary vessels (right and left)
- abdomen (diaphragm) block: no internal structure
- 30 simulated tumors (15 variations, 2 pcs each)
- 3 varieties of Hounsfield number: approx -800, -630,+100
- 5 sizes for each type: diameters 3, 5, 8, 10, 12 mm
- 1 carrying case

Materials:

- soft tissue: polyurethane (gravity 1.06)
- synthetic bones: epoxy resin
- phantom size: 43 x 40 x 48H cm, chest girth 94 cm
- weight: approx.18 kg
- packing size: 30 x 70 x 50 cm, 27 kg

Specifications are subject to change.

Optional parts

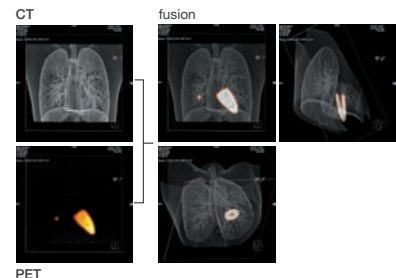


41337-010 Chest Plates



Components for Radioisotope

- 41337-020 Lungs of urethane
- 41337-030 Liver RI container
- 41337-040 Gallbladder RI container
- 41337-050 Pulmonary nodule RI container
- 41337-060 Mediastinum with left myocardium RI container
- 41337-070 Simulated tumors



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