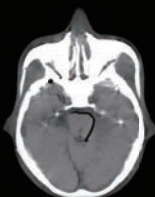
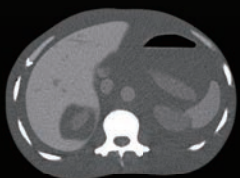
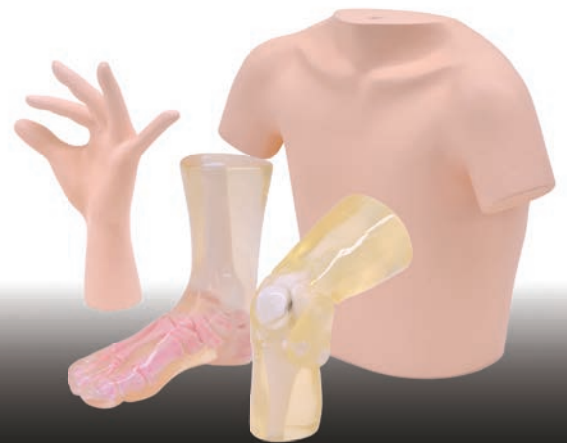




Diagnostic Radiology Phantoms

 KYOTO KAGAKU



Contents

■ Sectional Phantom Series (Plain X-rays)



Head

41926-000
Head (Opaque) >>P.01
41926-010
Head (Transparent) >>P.01



Elbow

41926-140
Right Elbow (Opaque) >>P.02
41926-150
Right Elbow (Transparent) >>P.02



Knee

41926-180
Right Knee (Opaque) >>P.02
41926-190
Right Knee (Transparent) >>P.02



Thorax

41926-060
Thorax (Opaque) >>P.01
41926-070
Thorax (Transparent) >>P.01



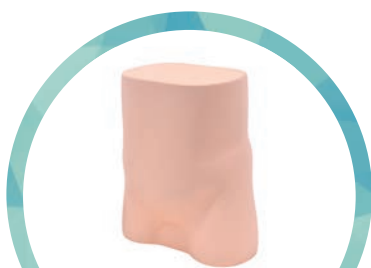
Hand

41926-020
Right Hand (Opaque) >>P.02
41926-030
Right Hand (Transparent) >>P.02
41926-040
Left Hand (Opaque) >>P.02
41926-050
Left Hand (Transparent) >>P.02



Foot

41926-100
Right Foot (Opaque) >>P.02
41926-110
Right Foot (Transparent) >>P.02
41926-120
Left Foot (Opaque) >>P.02
41926-130
Left Foot (Transparent) >>P.02

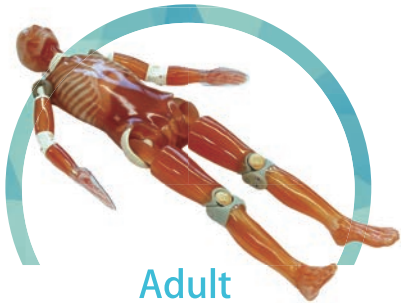


Pelvic

41926-080
Pelvic (Opaque) >>P.01

No Metal, Liquids or Elastic material are used in our Radiographic and CT training Phantoms.

■ Whole Body Phantoms



Adult

PH-60
"PBU-90 RUGGED" >>P.03
PH-2
"PBU-50" (standard) >>P.03
PH-2B
"PBU-60" (for CT & X-ray) >>P.04



Optional Parts

41350-200-16
Body Plates(BMI 32) >>P.04
41350-200-17
Body Plates(BMI 40) >>P.04
Custom Orders
Gunshot Wound Thigh >>P.03



Pediatric

PH-50
Newborn >>P.05
PH-2C
"PBU-70" (5-year-old)
>>P.05
PH-2D
"PBU-70B" (bone fracture)
>>P.05

■ Other Diagnostic Phantoms



PH-1
Chest Phantom N1 LUNGMAN
>>P.06
PH-1C
Pediatric Chest Phantom
>>P.06



PH-4
CT Torso Phantom CTU-41
>>P.07



PH-5
CT Abdomen Phantom
>>P.07



PH-46
CT Prostate Phantom >>P.07



PH-3
Angiographic CT Head
Phantom ACS >>P.08



PH-47, PH-62
Dental Radiography Head
Phantom >>P.08

Sectional Phantoms allow for imaging of individual anatomy as needed.

01



Head



Adjustable head supporter

41926-000

Head (Opaque)

41926-010

Head (Transparent)

Stand-alone design can be used with the adjustable head positioning stand to demonstrate accurate skull positioning.

* Opaque model shown.



Body



41926-060

Thorax (Opaque)

41926-070

Thorax (Transparent)

Includes thoracic skeletal system with embedded heart and lungs to provide realistic imaging. The scapulae are rotated outside of the lung fields for proper PA chest imaging.

* Opaque model shown.



41926-080

Pelvic (Opaque)

Includes lumbar/sacral spine, pelvic bony anatomy and proximal femurs.





Arm

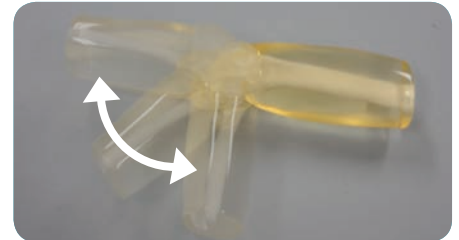


41926-140
Right Elbow
(Opaque)

41926-150
Right Elbow
(Transparent)

Normal flexion range allows for AP/lateral and partial flexion views with one phantom.

* Transparent model shown.



41926-020
Right Hand
(Opaque)



41926-040
Left Hand
(Opaque)

41926-030
Right Hand
(Transparent)

* Transparent model shown.

41926-050
Left Hand
(Transparent)

* Opaque model shown.



Leg

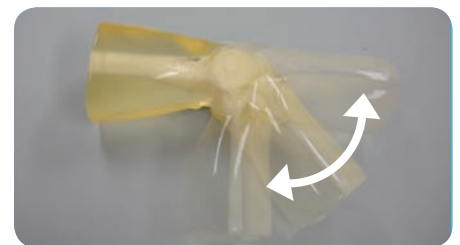


41926-180
Right Knee
(Opaque)

41926-190
Right Knee
(Transparent)

Freely movable patella and joint allows for realistic positioning of the knee for AP/lateral, oblique, sunrise and tunnel views.

* Transparent model shown.



41926-100
Right Foot
(Opaque)



41926-120
Left Foot
(Opaque)

41926-110
Right Foot
(Transparent)

* Transparent model shown.

41926-130
Left Foot
(Transparent)

* Opaque model shown.



Whole Body Phantoms

PH-60

TOUGH Whole Body Phantom "PBU-90 RUGGED"



Height: 165 cm

New phantom material is designed for rough handling, improved durability and low maintenance. Freely articulating joints allow for realistic positioning.



Skeletal system with embedded lungs, heart, liver and kidneys. PBU-90 includes a whole body phantom (separable into 10 parts) and head supporter.



Durability testing



Open hand position



Adjustable head supporter



Shoulders: rotate full 360 degrees in the sagittal plane, approx. 180 degrees on the side.



Elbows and Knees: bends up to approx. 90 degrees.



Hip joints: rotates forward up to approx. 90 degrees, then abducts up to 45 degrees.

41363-070

Storage Case II for PH-2/2B (a pair)



PH-2

Whole Body Phantom "PBU-50" (standard)

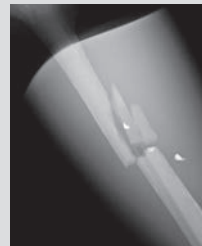
Height: 165 cm

PBU-50 is ideal for radiologic technology students with realistic attenuation and articulating joints.

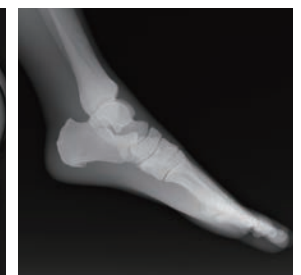
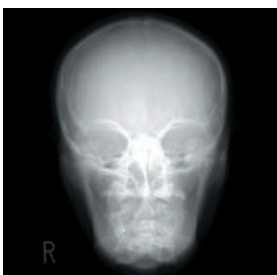


Custom orders

Gunshot Wound Thigh



We have been manufacturing a wide variety of phantoms according to our customer's requests. The photo shows a gunshot wound at the thigh. Fractures and gunshot wounds on the body can be replicated upon request. Please feel free to ask for a quote.



PH-2B

**CT Whole Body Phantom
"PBU-60"**

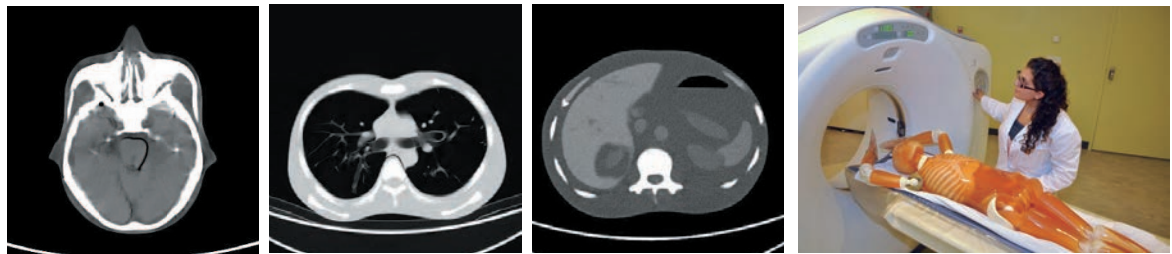
Height: 165 cm



CT Whole Body Phantom PBU-60 are full size anthropomorphic phantoms with movable and detachable joints for positioning. This phantom can be separated into 10 individual parts, allowing a wider application in training and research.

PBU-60 with Hounsfield correct internal organs, skeletal anatomy and soft tissue.

Internal Organs	HU number at 80 kVp	Internal Organs	HU number at 80 kVp
Brain		Portal and hepatic veins	40
Cerebrum	40	Pancreas	30
Mesencephalon	40	Kidneys	30
Cerebellum	40	Gallbladder	20
Cerebral ventricles	10	Spleen	50
Eye balls	20	Seminal vesicle	25
Arteries with contrast medium (left half only)	250	Aorta	40
		Cava	70
Lungs	-1000	Ureter	ureteral wall: 30/inside: 10
Pulmonary vessels	8	Urinary bladder	10
Trachea	trachea wall: 8 / inside: -1000	Prostate	50
Heart	PBU-50: 8/PBU-60: 40	Rectum	rectum wall: 70/inside: -800
Liver	70	Sigmoid Colon	colon wall: 70/inside: -800



Optional parts for PH-2, PH-2B, PH-60

Body Plates



**41350-200-16
Body Plates (BMI 32)**

**41350-200-17
Body Plates (BMI 40)**

Designed to demonstrate image quality issues due to attenuation, photon scattering, and increased radiation doses in obese patients.

Helpful in adjusting CT imaging protocols, reconstruction algorithms and improving image quality in larger patients.

Body plates were designed by calculating weight. Plate volume is based on body height 1.5 meters. BMI 32 and BMI 40 available.

PH-50

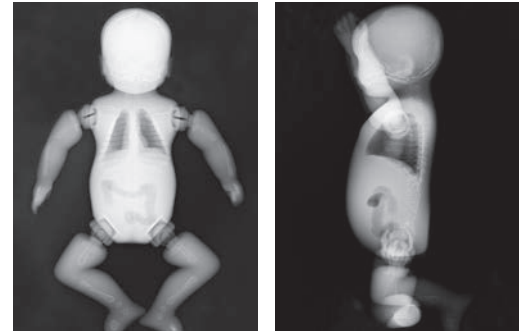
Newborn Whole Body Phantom

Size: 42 cm

Limbs rotate 360 degrees at shoulders and hip joints. Left hand is clenched and right hand is opened.

Training Skills

- Immobilization
 - manual immobilization
 - Immobilization with fixtures
- Autopsy Imaging
- Radiography
 - Upright AP
 - Supine AP
 - Upright Lateral
 - Supine lateral



* Meconium aspiration syndrome can be made custom.



PH-2C

Pediatric Whole Body Phantom
"PBU-70"

Height: 110 cm

Pediatric Whole Body Phantom is modeled after a 5-year-old child of 105 cm (43") in height. This is a life-size, full body anthropomorphic phantom with a state-of-the-art synthetic skeleton, lungs, liver, mediastinum and kidneys.



Anatomies

- Full synthetic skeleton
- Main pulmonary vessels, mediastinum, liver, kidneys

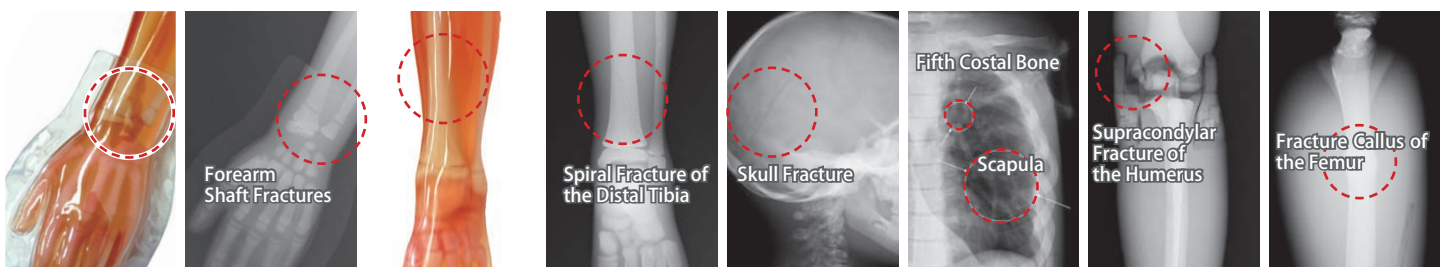


41363-060
Storage case II
for PH-2C

PH-2D

Bone Fracture Pediatric Phantom
"PBU-70B"

This Phantom has been designed and developed to improve observational skills in future X-ray technologists and radiologists. Demonstrates typical fractures of abuse and trauma. All fractures will be on the left side of the body.



Other Diagnostic Phantoms

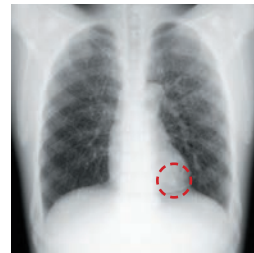
PH-1

Multipurpose Chest Phantom N1 "LUNGMAN"

Size: W43 x H48 cm
Chest girth: 94 cm



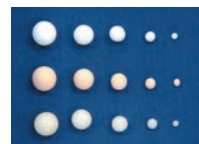
Designed with 3D internal structures that provide realistic radiographic and Hounsfield correct CT images. Anthropomorphic design allows for AP/PA, oblique and lateral imaging of the thorax. Internal structures and movable simulated tumors accurately demonstrate life-like contrast variations produced when modifying dose technique settings.



Features

- Applicable for both plain radiography and CT scanning.
- Simulated tumors and other targets can be attached at any points in the lung field.
- Wide variety of uses in interpretation training, anatomical education, evaluation and assessment of devices and other research.
- Accurate anatomy and high quality substitute materials.
- Arms-abducted position of the torso suits the CT scanning.

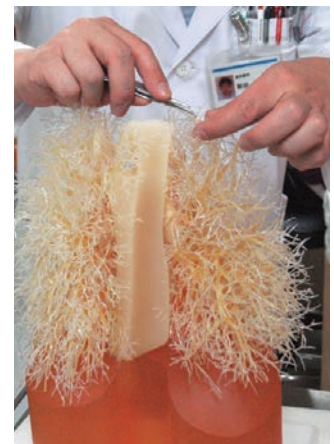
Simulated Tumors for PH-1



41337-070
Simulated
Tumors
(standard set)



Custom order
Simulated
Tumors

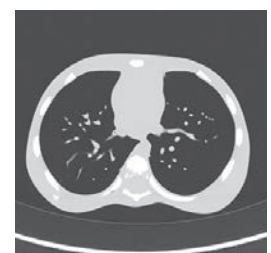


Attach the simulated tumors

PH-1C

Pediatric Chest Phantom (5-year-old)

Size: 32 x 17 x 38 cm



Features

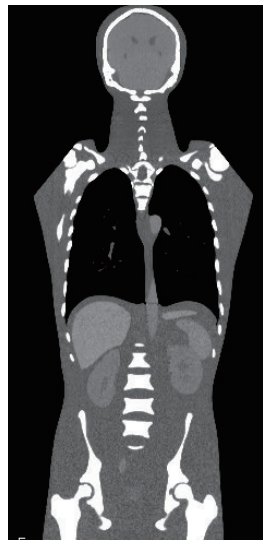
- Two types of interchangeable lung inserts are available.
 - lung vascular insert and lung density insert.
- Pencil-shaped ion chamber for CTDI can be set in the mediastinum.
- TLD or RPL dosimeters can be set in the thyroid block and the lung density insert.
- Detachable internal structure allows insertion of variety of pathologies and targets.

PH-4

CT Torso Phantom CTU-41

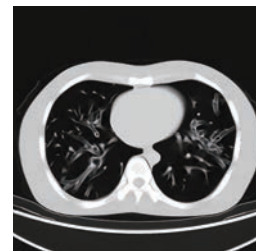
Height: 100 cm

CT Torso Phantom CTU-41 complete with Hounsfield correct internal organs, skeletal anatomy and soft tissue. Designed for Radiographic and CT imaging, while enhancing MPR and 3D reconstruction training. Left cerebral artery is contrasted enhanced to further enhance training.



Anatomies

- Synthetic bones with cartilage: artificial skull, vertebrae, clavicles, ribs, sternum, scapula, coxal bones, femurs
- Brain with cerebral ventricles
- Eye balls
- Lungs with pulmonary vessels
- Trachea (up to the third bifurcations)
- Liver with portal and hepatic veins
- Kidneys, gallbladder, pancreas, spleen, aorta, cava, ureter, urinary bladder, prostate, rectum, sigmoid colon and ascites

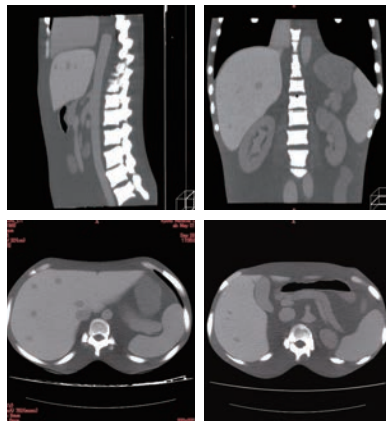


PH-5

CT Abdomen Phantom

Size: 25 x 18 x 28 cm

CT and ultrasound fusion experiments are possible with combination of the US-1 Echozy.



Anatomies

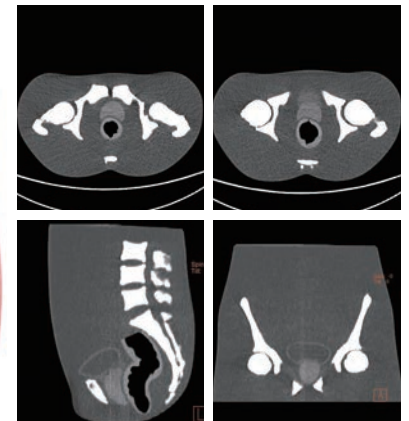
- Lungs (no internal structure)
- Heart (no internal structure)
- Liver
- Portal vein
- Gallbladder
- Hepatic vein
- Hepatic artery
- Kidneys
- Pancreas
- Spleen
- Aorta
- IVC
- Spinal column
- Ribs

PH-46

CT Prostate Phantom

Height: 35 cm

Resourceful model for therapy planning for prostate cancer.



Anatomies

- Organs: prostate, urinal bladder with simulated internal fluid, seminal vesicles and rectum.
- Bones: L4, L5, pelvis and femurs (partial).

PH-3

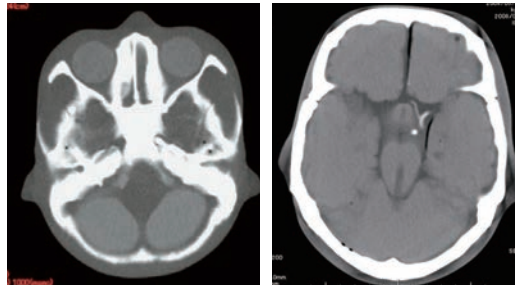
Angiographic CT Head Phantom ACS

Size: Life-size

Contrast-enhanced left cerebral arteries are three dimensionally embedded in the brain.

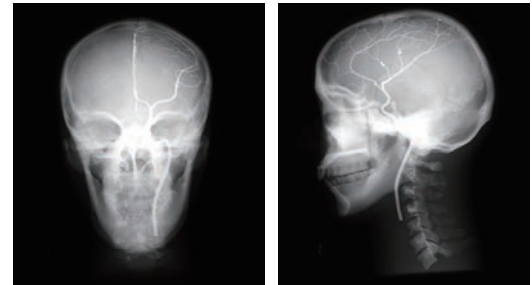


**41309-100
CT Type**



HU number of artery: 280

**41309-200
Angio Type**



HU number of artery: 4700

Anatomies

Left anterior cerebral artery, left middle cerebral artery, cerebrum, mesencephalon, cerebellum, ventricles, eye balls, synthetic skull and cervical vertebrae (C1-C7).

Diameters of arteries range from 0.5 to 4.0 mm /0.02 in to 0.16 in.

PH-47

Dental Radiography Head Phantom
(mouth closed)

Size: Life-size



Removable jaws and tongue allow a variety of application for training and research.

Anatomies

- Synthetic skull with nasal cavity, maxillary sinus, mandible alveolar, and maxillary alveolar; cervical vertebrae and hyoid bone, teeth with enamel, dentin and pulp cavity.
- Tongue, oral cavity, pharyngeal cavity and carotid arteries

Anatomies

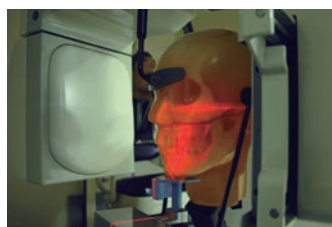
- Each tooth is individually modeled and has a three-layer structure of enamel, dentin and pulp cavity.
- Each hard tissue (enamel, dentin, cortical bone and cancellous bone) has a particular HU number and X-ray absorption rate.
- Censors, simulated lesions, or residue can be set in the oral cavity, pharyngeal cavity and maxillary sinus.

PH-62

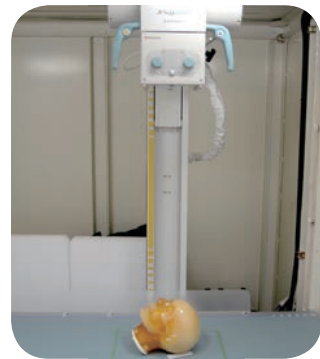
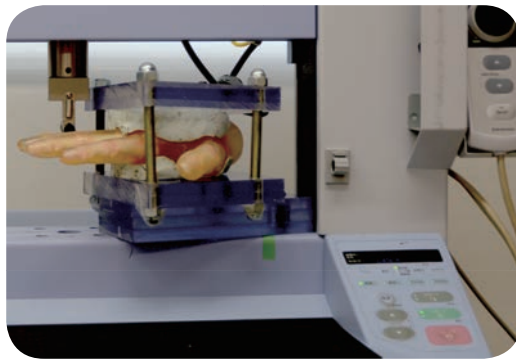
Dental Radiography Head Phantom

Size: Life-size

(mouth open)



PH-47 includes a tripod.



Let us know your thoughts

We believe in the importance of providing phantoms that meet your needs and listening to your voice to find a solution.

If you would like to suggest any additional features for our phantoms, please do not hesitate to contact Kyoto Kagaku!
Innovation is our tradition.



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