

SINCE 1891

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ULTRASOUND PHANTOMS

PRODUCT CATALOG Vol.UP-2

For optimal application of ultrasound in medicine

Kyoto Kagaku started preparing for coming age of medical ultrasound as early as turning of the century. At the beginning, there was two streams to pursuit: development of material for ultrasound phantom that is not only close to human tissue under ultrasound but also stable and long-life, construction of three-dimensional anatomical representation that facilitate improving interpretation skills of trainees.

With the passage of time, application of ultrasound in medicine has developed and also the phantoms. Now Kyoto Kagaku phantoms cover the field of QA, training in examination and ultrasound guided procedures, and serving the range of health care specialties.



Photos courtesy of Adventist University of Health Sciences

Our ultrasound phantoms are presented at exhibitions such as RSNA, ECR, AIUM, SDMS and IMSH.

ULTRASOUND PHANTOMS PRODUCT CATALOG

Vol.UP-2

CONTENTS



Features of Ultras und Phantom Materials Examples of custom made phantoms

P.38 P.39







Fetus Ultrasound Examination Phantom SPACE FAN-ST

US-7B 41905-100

Fetus Ultrasound Examination Phantom SPACE FAN-ST Hear

Now upgraded for fetal echocardiography training; Staple phantom for hands-on practice in second trimester screening

Includes a 23-week fetus with detailed anatomy which covers landmarks for assessment of gestational age in second trimester

Product Supervision

Kiyoko Kabeyama RN, RM, PhD

Professor Midwifery & Women's Health, School of Human Health Science. Graduate School of Medicine. Kvoto University

Haruto Egawa, PhD

National Hospital Organization Kyoto Medical Center Department of Obstetrics, Head Physician or Medical Director





Photos courtesy of Adventist University of Health Sciences

FEATURES

- 1 | The oval-shaped phantom abdomen can be set info four different positions
- 2 | The fetus includes full skeletal structures and key organs
- 3 | Includes an educational DVD and a fetus demonstration model for comprehensive learning
- 4 | Includes a 23-week fetus

US-7B: added features

- 1 | Detailed heart anatomy for fetal echocardiography
- 2 | Three times enlarged fetal heart model that demonstrates three key planes, 3VV, 3VTV and 4CV.





The oval-shaped phantom abdomen can be set in four different positions

SKILLS

- | Fetal size assessment: BPD, AD, AC and FL
- Measurement of amniotic fluid volume
- Determination of fetus presentation (cephalic or breech)
- Assessment of each body part
- -Head: skull and brain
- -Spine and limbs
- -Cardiac chambers, blood vessels and lungs
- | Assessment of umbilical cord and placenta position
- | Determination of sex (This phantom represents a male fetus)

US-7B: added skills

- Assessment of fetal heart size and cardiac axis
- Assessment of fetal heart vessels.
- | Measurement and calculation of TCD and CTAR

SPECIFICATIONS

Torso size: W40 x D31 x H22 cm W15.7 x D12.2 x H8.7 in.

Phantom size: W30 x D21 x H15 cm W11.8 x D8.3 x H5.9 in.

MATERIALS

Soft resin, Polyurethane elastomer Latex free Weight: 7.3kg / 13 lbs

REPAIR

41905-000-99 recoating of US-7a/7B

* Ultrasound scanner is not included.

SET INCLUDES

I INCLUDES

- 1 mother body torso
- 1 ultrasound pregnant uterus phantom (Space-FAN ST)
- 1 fetus demonstration model
- 1 storage case
- 1 tutorial manual (DVD)
- talcum powder

US-7B SPACE FAN-ST (41905-100)

- 1 mother body torso
- ultrasound pregnant uterus phantom (Space-FAN ST Heart)
- 1 fetus demonstration model
- 1 fetal heart model
- 1 storage case
- 1 tutorial manual (DVD)
- 1 talcum powder

DESCRIPTIONS

US-7B SPACE FAN-ST Heart for Fetal Eb oa rdiography features detailed a rdiac anatomy, ideal for fetal eb oa rdiography training



aortic arb



three-e s I trab ea iv ew (3VTV)



three-e s livew (3VV)



four b amber iv ew (4CV)



FL



UV, Plae nta



US-7a SPACE FAN-ST for second trimester screening



BPD



AC/AD

Fetus Demonstration Model

Life is ze d model

Life-size fetus model for demonstration and visual understanding



Fetus Heart Model

Three times enlarged model

Comes apart into 5pieces according to the basic planes in fetal echocardiography







Uterus

- amniotic fluid placenta
- umbilical cord

Fetus

- | skeletal structure
- I brain with septum lucidum
- lateral ventricles and cerebellum
- I heart with four chambers
- lungs
- spleen
- | bladder
- | stomach
- liver
- | kidneys
- aorta
- I umbilical vein
- | umbilical artery
- l external genitalia

Fetal heart of US-7B

- | aortic arch
- I trachea
- ascending artery
- superior vena cava descending artery
- | atrial septum
- | ventricular septum
- I foramen ovale



Ultras und ex mination e t for MW48 Hana (11425-140)







Female Pelvic Ultrasound Phantom

Practice both transvaginal and transabdominal ultrasound procedures in one

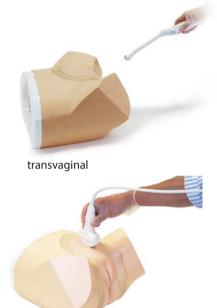
Newly added 10-week- pregnancy, IUD and follicular phase units support thorough training in Obs/gyn ultrasound

Product Supervision

Charlotte Henningsen, MS, RT(R), RDMS, RVT, FSDMS, FAIUM

Chair & Professor - Sonography Department Adventist University of Health Sciences





transabdominal

FEATURES

- 1 | Compatible with actual ultrasound transducer
- 2 | Six types of interchangeable phantom inserts with different pathologies
- 3 | Realistic view of female external genital
- 4 | Excellent ultrasound image quality

SKILLS

- | Handling and manipulation of transvaginal and transabdominal transducers
- Interpretation of sonogram
- | Visualization and localization of anatomies and pathologies

ANATOMY

Common for all units

| urinary bladder

pelvic bone

ovaries

uterus

I follicles

I vagina

Pregnancy units

| gestation sac

yolk sac

embryo

| placenta

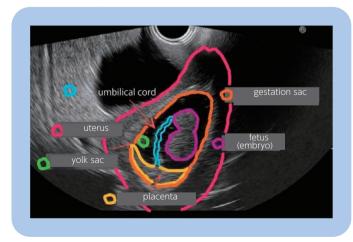
I follicles

I umbilical cord (10-week)

l rectum



longitudinal iv ew of the pregnanty (10-week unit on trana ginal a n





For e t a riations pleae refer the webs te: https://www.lp tola gala .o m/en/produc s introduction/us 10/



Six a riations of training units Anatomy, findings and pathology Gestation Rectum Normal pregnancy Ovary unit Yolk sac Placenta Rectum Ovary Normal pregnancy (10-week) unit [Longitudinal image] Douglas Cavum Uterine Fibroid Fallopian Tube Rectum Ovary Ectopic pregnancy Endometrial Cancer unit •et opic pregnany •bleeding at Douglas a v ty Anatomies Douglas Cavum Uterine Fibroid Fallopian Tube Rectum Ovary Pathologia I unit Endometrial Cancer endometrial a ne r dermoid s uterine fibroid bleeding at Douglas a vity Anatomies IUD **IUD** unit endometrium (proliferative phase) NEW Follia lar phae

SPECIFICATIONS

Torso size: W34 x D33 x H24 cm W13.5 x D13 x H9.5 in.

weight: 6.9kg / 15.2 lbs

MATERIALS

Soft resin, Polyurethane elastomer

* Ultrasound scanner is not included.

DESCRIPTIONS

REPLACEMENT PARTS

41909-030 ultrasound pathology unit

41909-040 ultrasound ectopic pregnancy unit

41909-050 ultrasound first trimester pregnancy unit (7W)

41909-060 skin for US-10 / 10A / 10B

41909-070 ultrasound first trimester pregnancy unit (10W)

41909-080 IUD unit

41909-090 follicular phase unit

41909-300 lower torso with accessories

US-6







Breast Ultrasound Examination Phantom BREAST FAN

Unique phantom for basic breast ultrasound examination

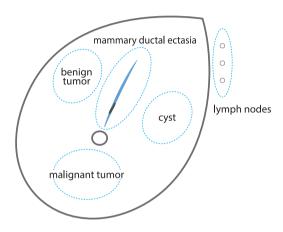
Simulated targets with different echogenicities are embedded in the phantom's mammary gland

Product Supervision

Tokiko Endo, MD, PhD Director of Department of Advanced Diagnosis, Clinical Research Center, National Hospital Organization Nagoya Medical Center

Director of Department of Radiology, National Hospital Organizat on Nagoya Medical Center





FEATURES

- 1 | State-of-the-art breast ultrasound phantom with anatomy
- 2 | Skills required for ultrasound breast screening can be greatly advanced with practice
- 3 | Excellent ultrasound image quality

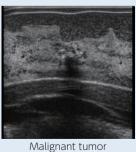
SKILLS

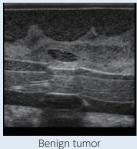
- | Systematic full breast scanning
- | Visualization of key anatomical landmarks
- Tracking of galactophore
- Visualization and differentiation of typical pathologies
- | Localization and measurement of cysts and tumor

IMAGES

Cyst

Mammary ductal ectasia





ANATOMY

- subcutaneous adipose mammary gland galactophore cooper's ligament retromammary adipose costae
- clavicle
- pectoralis major
- lung
- | lymph nodes at axilla

DESCRIPTIONS

SPECIFICATIONS

Size: W26 x D38 x H11 cm, W10.2 x D15 x H4.3 in. (breast) W33 x D45 cm, W13 x D17.7 in. (base plate)

SET INCLUDES

- 1 breast phantom 1 talcum powder
- 1 tutorial manual (DVD)
- 1 instruction manual

storage case

Weight: 7kg / 15.4lbs

* Ultrasound scanner is not included.

MATERIALS

Latex free

Polyurethane elastomer

US-9 11387-000, 100, 200



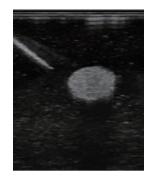


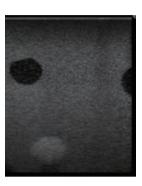
Ultrasound-Guided Breast Biopsy Phantom

Enhance confidence in performing safe and accurate breast biopsies

Combine two types of breast phantoms for step-by-step development of skills in needle biopsy





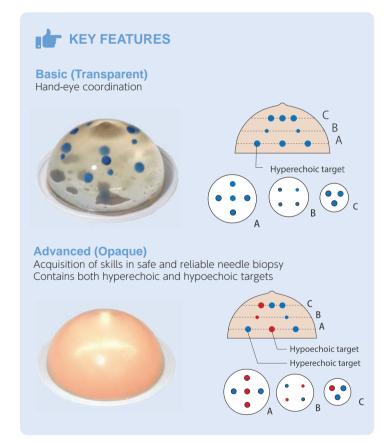


FEATURES

- 1 | Fine Needle Aspiration Biopsy (FNAB), Core Needle Biopsy (CNB) and Mammotome biopsy can be performed under ultrasound guidance.
- 2 | Realistic breast tissues that simulate the softness and resistance of the mammary gland.
- 3 | Targets are colored to confirm successful sampling.
- 4 | Targets are embedded in three levels for training in needle access in different angles and depth.
- 5 | Transparent and opaque phantoms provide level variations.
- 6 | Inexpensive and disposable for multiple attempts.

SKILLS

- | Hand-eye coordination in ultrasound biopsy
- | Localization of targets under ultrasound guidance
- | Sampling of target



MATERIALS

Hydrogel

Latex free

SPECIFICATIONS

Size: 16 dia. x H8 cm / 6.3 dia. x H3.2 in. each Weight: 0.75kg / 1.7 lbs each Target size: 6 and 10mm dia. each

Target type and number:

Basic Phantom: 12 x hyperechoic targets (blue) Advance Phantom:

6 x hyperechoic targets (blue) 6 x hypoechoic targets (red)

SET INCLUDES

DESCRIPTIONS

1 pair of phantoms 1 instruction manual

SET VARIATIONS

Duo set: 11387-000 transparent + opaque type Transparent set: 11387-100 1 pair of transparent type Opaque set: 11387-200 1 pair of opaque type

* Ultrasound scanner is not included.

US-14a 41917-000





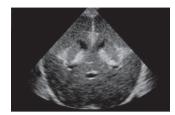
Ultrasound Neonatal Head Phantom (Normal Type)

World's first ultrasound neonatal head phantom with key anatomies

Product Supervision

Charlotte Henningsen, MS, RT(R), RDMS, RVT, FSDMS, FAIUM Chair & Professor - Sonography Department Adventist University of Health Sciences







Cranial or head ultrasound is one of the most difficult scanning skills, and there are few opportunities for training. This head phantom features an accurate depiction of a newborn's cerebral anatomy, and facilitates a realistic user experience with its life-like soft touch

SKILLS

FEATURES

- | Scanning of brain anatomy in sagittal (angled parasagittal), coronal and transverse planes via any fontanel
- | Palpation of anterior, posterior and mastoid fontanels

ANATOMY

skull	cerebrum
anterior fontanel	cerebellum
posterior fontanel	brain-stem

third ventricle

mastoid fontanels

-stem Lateral ventricle

fourth ventricle septum lucidum

SPECIFICATIONS Size: W13 x D13 x H17 cm W5.1 x D5.1 x H6.7 in.

Weight: 1.5kg / 3.3lbs

SET INCLUDES

1	ultrasound phantom
1	pillow
1	talcum powder
1	storage case
1	instruction manual

DESCRIPTIONS

MATERIALS

Polyurethane elastomer Latex free

41917-000-99 recoating of US-14a

* Ultrasound scanner is not included.

US-14b

41915-000





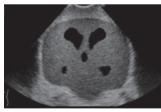
Ultrasound Neonatal Head Phantom (Abnormal Type)

World's first ultrasound neonatal head phantom with hydrocephalus

Product Supervision

Charlotte Henningsen, MS, RT(R), RDMS, RVT, FSDMS, FAIUM Chair & Professor - Sonography Department Adventist University of Health Sciences







FEATURES

This head phantom is designed to demonstrate Hydrocephalus The shape of the skull is altered due to intracranial pressure

SKILLS

- | Scanning of brain anatomy in sagittal (angled parasagittal), coronal and transverse planes via any fontanel
- | Palpation of fontanels

ANATOMY

- skull
- anterior fontanel
- posterior fontanel
- hypertrophied lateral ventricle

DESCRIPTIONS

SPECIFICATIONS Size: W13 x D14 x H20 cm W5.1 x D5.5 x H7.9 in.

Weight: 1.5kg / 3.3lbs

SET INCLUDES

1	ultrasound phantom
1	pillow
1	talcum powder
1	storage case
1	instruction manual

MATERIALS

Polyurethane elastomer Latex free

REPAIR

41915-000-99 recoating of US-14b

* Ultrasound scanner is not included.

US-13



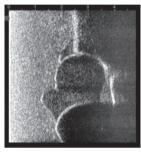
Infant Hip Sonography Training Phantom

World's first infant hip sonography phantom Best tool to teach Graf's method

This phantom expands training opportunities for pediatricians, radiologists and orthopedists. Before working on real infants, trainees can repetitively practice on this phantom to become familiar with the examination procedures and key points. Using real ultrasound devices, trainees can learn key ultrasound landmarks to identify standard plane for Graf's classification. This is a foundation to acquire skills in handling and positioning of the baby as well as correct positioning of the transducer.

Product Supervision
Univ. Prof., h.c., Reinhard Graf, M.D.





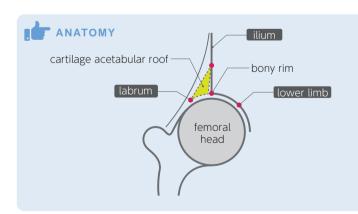


FEATURES

- 1 | The market's only training phantom for hip sonography on a full body manikin of 6-week-old infant
- 2 | Bilateral hips for examination
- 3 | Facilitate anatomical understanding
- 4 | Movable arms to practice supporting and repositioning of the infant

SKILLS

- | Setting and preparation for hip sonography
- | Changing the position of the infant
- | Communication and interaction with infant's guardian
- Correct use and positioning of the transducer
- Recognition of landmarks for hip sonography
- Visualization of standard, anterior and posterior planes
- | Interpretation and morphological classification of the sonogram



KEY LANDMARKS

- | chondro-osseous junction
- | femoral head
- synovial membrane
- | joint capsule
- acetabular labrum
- | cartilaginous portion of the acetabular roof
- bony promontory of the superior bony acetabular rim
- | lower margin of the ilium
- | standard plane

DESCRIPTIONS

SPECIFICATIONS
Size: W55 x D25 x H13 cm
W21.6 x D9.8 x H5.1 in.

Weight: 3kg / 6.6lbs

MATERIALS

Polyurethane elastomer Latex free

SET INCLUDES

- 1 ultrasound infant phantom
- 1 talcum powder
- 1 storage case
- 1 instruction manual

- * Supporting cushion is not included.
- * Ultrasound scanner is not included.

US-8 41906-000





Pediatric FAST/Acute Abdomen Phantom

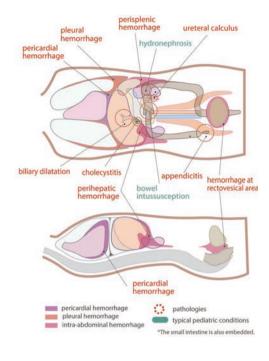
Ultrasound training for pediatric FAST procedures

This world's first pediatric ultrasound torso phantom provides opportunities of hands-on training in ultrasound examination of a two-year-old patient

Product Supervision

Shunsuke Nosaka, MD, PhD Director of Radiology National Medical Center for Children and Mothers





FEATURES

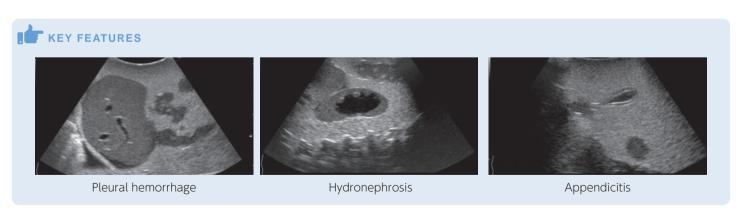
- 1 | Thoracoabdominal organs, bone structure and free-fluid for practicing FAST examination procedures
- 2 | Commonly seen pathologies in pediatrics
- 3 | Acquire fundamental pediatric abdominal ultrasound skills, as well as FAST/Acute sonography skills

SKILLS

|FAST procedures:

Internal hemorrhage at perihepatic, perisplenic, pelvis, and pericardium area

Sonography for acute pediatric patient:
Bowel intussusception, appendicitis and biliary dilatation



SPECIFICATIONS

Size: W41 x D17 x H15 cm W16.1 x D6.7 x H5.9 in. Weight: 7kg / 15.4lbs

SET INCLUDES

- 1 ultrasound phantom
- 1 talcum powder1 storage case
- 1 tutorial manual (DVD)
- 1 instruction manual

DESCRIPTIONS

MATERIALS
Polyurethane elastomer

Latex free

41906-000-99 recoating of US-8

^{*} Ultrasound scanner is not included.

US-5

41903-000







FAST/Acute Abdomen Phantom FAST/ER FAN

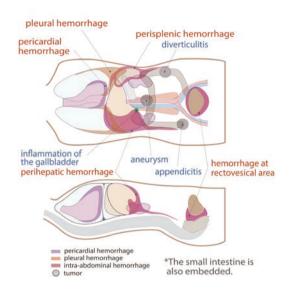
Conduct "FAST" assessment to save a trauma patient!

FAST/ER FAN provides simulated training in FAST (Focused Assessment with Sonography for Trauma); an ultrasound examination directed at detection of the presence of free fluid in trauma patients

Product Supervision

Junji Machi, MD, PhD University of Hawaii at Manoa and Kuakini Medical





FEATURES

- 1 | An innovative phantom for repetitive training of FAST as an adjunct to the ATLS primary survey
- 2 | Pathologies include cholecystitis, an aortic aneurysm and a lesion on the colon

SKILLS

| Internal hemorrhage at perihepatic, perisplenic, pelvis and pericardium area

| Sonography for acute patients

FAST



Perisplenic Hemorrhage















ISPECIFICATIONS

Size: W62 x D30 x H25 cm W24.4 x D11.8 x H9.8 in. Weight: 30kg / 66lbs

SET INCLUDES

- 1 ultrasound phantom
- tutorial manual (DVD)
- talcum powder
- instruction manual

DESCRIPTIONS -

MATERIALS

Polyurethane elastomer Latex free

REPAIR

41903-000-99 recoating of US-5

*Ultrasound scanner is not included.

US-1B 41900-100,030





Ultrasound Examination Training Phantom ABDFAN

Abdominal ultrasound phantom with pathologies

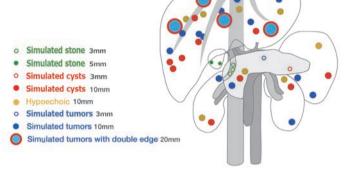
Unique high-fidelity abdominal ultrasound phantom that facilitates effective training compatible with your own clinical devices

Product Supervision

Junji Machi, MD, PhD University of Hawaii at Manoa and Kuakini Medical Center

Simulated lesions in liver, pancreas, kidney, spleen, gallbladder







Full set includes ECHO-ZOU (11224-000)

FEATURES

- 1 | Detailed hepatobiliary, pancreatic and other abdominal anatomy
- 2 | Couinaud's eight hepatic segments can be localized
- 3 | ABDFAN has various simulated lesions to provide wider training variety

SKILLS

Basics of abdominal sonography:

- Cross sections and sonographic anatomy
- Sonographic demonstration of each individual organ
- Localization of Couinaud's hepatic segments

Anatomy

(segmental anatomy, portal and hepatic venous systems, ligamentum teres and ligamentum venosum)

(gallbladder, cystic duct, intrahepatic and extrahepatic bile ducts)

- Pancreas (pancreatic duct)
- Spleen / kidneys
- Detailed vascular structures

(aorta, vena cava, celiac artery and its branches, portal vein and its branches, superior mesenteric vessels, renal vessels, and more)

Pathologies

Hepatic lesions (cystic and solid) Gallbladder and bile duct stones Pancreatic tumors

(one invading the portal vein)

Splenic lesions

Lesions in both kidneys

Left adrenal tumor





- DESCRIPTIONS -

SPECIFICATIONS

Size: W29 x D19 x H31cm / W11.4 x D7 x H12.2 in. Weight: 12kg / 26.5lbs

MATERIALS

Polyurethane elastomer Latex free

REPAIR

41900-030-99 recoating of US-1B

ISET INCLUDES

- 1 ultrasound phantom ABDFAN
- positioning pillow
- talcum powder
- tutorial manual (DVD)
- 1 storage case
- instruction manual

- 1 ultrasound phantom ABDFAN
 - anatomical model ECHO-ZOU
- positioning pillow
- talcum powder
- tutorial manual (DVD)
- storage cases
- 1 instruction manual





Ultrasound Examination Training Phantom ECHOZY

Abdominal ultrasound phantom without pathologies

Unique high-fidelity abdominal ultrasound phantom that facilitates effective training compatible with your own clinical devices

Dr. Hitoshi Asai, Director Osaka Kyoiku University, Health Administration Center Dr. Shigeru Nakamura

Nagayoshi General Hospital, Clinical Examination





Full set includes anatomical model ECHO-ZOU

FEATURES

- 1 | Detailed hepatobiliary, pancreatic and other abdominal anatomy
- 2 | Couinaud's eight hepatic segments can be localized

SKILLS

Basics of abdominal sonography:

- Cross sections and sonographic anatomy
- Sonographic demonstration of each individual organ
- Localization of Couinaud's hepatic segments

Anatomy

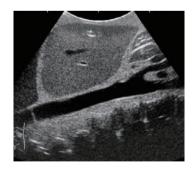
(segmental anatomy, portal and hepatic venous systems, ligamentum teres and ligamentum venosum)

Biliary tract

(gallbladder, cystic duct, intrahepatic and extrahepatic bile ducts)

- Pancreas (pancreatic duct)
- Spleen / kidneys
- Detailed vascular structures

(aorta, vena cava, celiac artery and its branches, portal vein and its branches, superior mesenteric vessels, renal vessels, and more)





DESCRIPTIONS -

SPECIFICATIONS

Size: W29 x D19 x H31 cm / W11.4 x D7 x H12.2 in. Weight: 12kg / 26.5lbs

MATERIALS

Polyurethane elastomer Latex free

REPAIR

41900-010-99 recoating of US-1

SET INCLUDES

- 1 ultrasound phantom ECHOZY
- set positioning pillow
- 1 tutorial manual (DVD)
- 1 talcum powder
- 1 storage case

- 1 ultrasound phantom ECHOZY
- anatomical model ECHO-ZOU
- positioning pillow
- tutorial manual (DVD)
- talcum powder
- storage cases

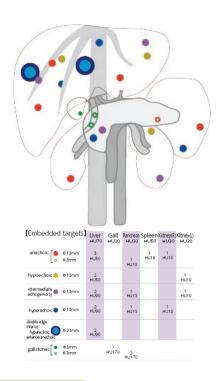
US-22 41952-000



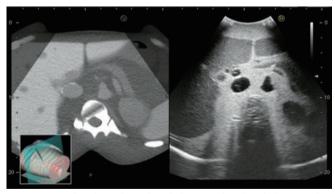
Dual Modality Human Abdomen Phantom (CT, Ultrasound)

This Multi-Modality Phantom is a suitable item to conduct studies and training of fusion imaging for a wide range of clinical applications (CT & Ultrasound)





- 1 | Fusion image generation training
- 2 | Mapping for biopsy (invasive procedures are not possible with this phantom)
- Surgical planning
- 4 | Radiation therapy planning
- Training for scanning skills in Ultrasound and CT



Comparison of CT-based simulated ultrasound and real ultrasound

ANATOMY

lung / kidneys (right and left) / gallbladder /aorta/ liver (portal vein, bile duct, hepatic artery, hepatic vein) / spleen / pancreas (pancreatic duct) / inferior aorta / spine / ribs

PATHOLOGIES

Liver lesions (cysts, solids)

Gallbladder and bile duct stones

Pancreatic tumors

Spleen lesions

Left and right kidney lesions

SPECIFICATIONS

Size: W29 x D19 x H31 cm W11.4 x D7.5 x H12.2 in. Weight: 12 kg/26.5 lbs

DESCRIPTIONS -

SET INCLUDES

- 1 dual modality abdominal phantom
- positioning pillow
- 1 talcum powder
- sample CT images (DVD)
- 1 storage case
- instruction manual

US-3 41901-000





Abdominal Intraoperative & Laparoscopic Ultrasound Phantom IOUSFAN

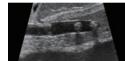
Effective training tool for abdominal intraoperative ultrasound examination

Phantom of abdominal organs to simulate ultrasound examinations during open and laparoscopic surgery

Junii Machi, MD, PhD University of Hawaii at Manoa and Kuakini Medical









Bile duct stones

Gallstones



FEATURES

Pancreatic head

- 1 | Soft phantom materials allow realistic probe manipulation.
- 2 | Various simulated lesions.
- 3 | Detachable stomach and duodenum for various scanning of the bile duct and pancreas.

SKILLS

| Abdominal intraoperative ultrasound examination

| Laparoscopic ultrasound examination







Laparoscopic ultrasound

ANATOMY and PATHOLOGIES

- segmental anatomy
- portal and hepatic venous system
- | ligamentum teres and ligamentum venosum

- gall bladder
- cystic duct
- intrahepatic and extrahepatic bile ducts

Pancreas

pancreatic duct

Kidneys

Detailed vascular structures

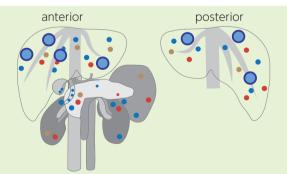
- aorta
- vena cava
- celiac artery and branches
- portal vein and branches
- superior mesenteric vessels
- | renal vessels

Biliary Stones and Cysts

Solid Tumors in liver, pancreas, spleen and kidneys

- | hypoechoic
- | hyperechoic





- Simulated cysts 1 cm / 0.4 in
- Hypoechoic 1 cm / 0.4 in
- Simulated tumors 1 cm / 0.4 in
- Simulated tumors with double edge 2 cm / 0.8 in

SPECIFICATIONS

Size: W30 x D38 x H17.5 cm W11.8 x D15 x H6.9 in. Weight: 5.8kg / 12.8lbs

SET INCLUDES

- upper abdomen ultrasound phantom
- stomach ultrasound phantom
- phantom container tutorial manual (DVD)
- 1 instruction manual

DESCRIPTIONS

MATERIALS

Polyurethane elastomer Latex free

*Ultrasound scanner is not included.

US-16/16A 41932-000,100



Intravesical Urine Volume Measurement Phantom

Pocket-size d ultrasound is gaining popularity and starting to be utilize d more in daily care for examination. This method is preferred as catheterize tion may cause urinary infection





FEATURES

- 1 | Four interchangeable inserts representing different patient scenarios
- 2| Palpable pubic bone for ultrasound bladder visualization training using surface anatomical landmarks
- 3 | Home care training components for assessment of severe dehydration, urinary retention, and balloon occlusion
- 4 | Comprehensive urinary care training for recovery of lower urinary tract function for inpatients

SKILLS

| Handling and manipulation of transducers on bladder ultrasound | Scanning the bladder to measure urine volume and findings

KEY FEATURES



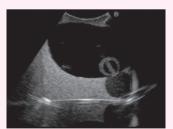
Urine volume 50mL



Urine volume 150mL



Urine volume 300mL



Urinary retention + balloon catheter





Intravesical Urine Volume Measurement Phantom (Bladder Scanner Compatible)





FEATURES

- 11 Compatible with bladder scanners*
- 21 Representing female bladder (no prostate)

*The phantom is tested and compatible with a range of major bladder scanners.

SPECIFICATIONS

Size:

Body: W30 x D26 x H18 cm, W12 x D10 x H7 in. Phantom: W14 x D12 xH13cm, W5.5 xD4.7 x H 5.1 in

Weight Body: 3.2kg / 7.1lbs Phantom: 1.5kg / 3.3lbs

DESCRIPTIONS -

MATERIALS

Latex free

SET INCLUDES

- 1 lower torso manikin
- 4 ultrasound blocks
- 1 storage case
- 1 talcum powder
- instruction manual

US-23 41953-000





Rectal and Bladder Ultrasound Phantom

Ultrasound training cubes for assessment of residual urine and excretion

Product Supervision

Hiromi Sanada, RN, PhD, WOCN, FAAN President, Ishikawa Prefectural Nursing University Masaru Matsumoto, Asst. Professor Ishikawa Prefectural Nursing University



FEATURES

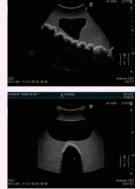
- 1 | Variation of residue excretion in the rectum for ultrasound assessment:
 - hard, soft, combination and empty
- 2 | Three types of urinal bladder for assessment and urine volume measurement: small, middle, large with a balloon catheter

SKILLS

- | Ultrasound assessment of residue excretion in the rectum
- | Measurement of urine volume
- | Ultrasound assessment of the urinal bladder and the prostate
- Assessment of indwelling bladder catheter

A: Small bladder / Hard excretion





B: Middle size bladder / Soft excretion







C: Large bladder with a balloon catheter / Hard and soft excretion / empty rectum







- DESCRIPTIONS -

SPECIFICATIONS

Size: W15 x D15 x 20H cm each W5.9 x D5.9 x H3.4 in. each

SET INCLUDES

- 3 types of ultrasound phantom cube
- 1 talcum powder
- 1 storage case
- 1 instruction manual

Weight: 2.0kg each 0.9lbs each

* Ultrasound scanner is not included.

US-11



Scrotal Ultrasound Phantom

Master techniques for a safe and painless examination

Hands-on training to accurately diagnose scrotum abnormalities

Charlotte Henningsen, MS, RT(R), RDMS, RVT, ESDMS, FAIUM Chair & Professor - Sonography Department

Adventist University of Health Sciences



FEATURES

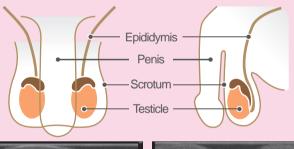
- 1 | Two types of interchangeable scrotums: normal and with pathologies
- 2 | Excellent ultrasound image quality

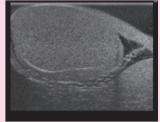
- Patient positioning and preparation for examination
- Scrotal ultrasound screening
- Visualization of testicular cancer

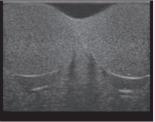


Normal phantom

- scrotum, testicle, epididymis and penis

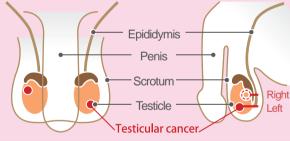




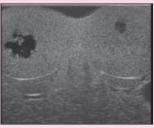


Pathological phantom

- -scrotum, testicle, epididymis and penis
- -testicular cancer (each one in left and right testis, 10mm dia.)







- DESCRIPTIONS

ISPECIFICATIONS

Size: W34 x D33 x H24 cm/W13.4 x D13 x H9.4 in. Weight: 3.6kg / 7.9lbs

SET INCLUDES

- 1 pelvic body
 - normal scrotum
- 1 pathological scrotum
- storage case
- 1 instruction manual
- talcum powder

REPLACEMENT PARTS

41911-010 1 normal scrotum unit 41911-020 1 pathological scrotum unit

* Ultrasound scanner is not included.

MW63/MW63B 11446-000,100





Pressure Sores Simulator

Training for assessment of Depth, Exudate, Siz , Inflammation, Granulation using a combination of different pads and simulated liquid

Produt Superivision:

MD. PhD, Professor Hiroto Terashi , Plastic and Reconstructive Surgery, Kobe University School of Medicine Masaharu Sugimoto, Part-time Lecturer, Toyama University of Rehabilitation Medicine and Welfare Madoka Noguchi, Nursing Department, Kobe University Hospital





Debridement of necrotic tissue









VARIATIONS

| Sacral pressure sore with different stages (4 types)

- Partial-thickness loss of dermis
- Full-thickness skin loss
- Full-thickness skin loss with granulation
- Full thickness tissue loss with exposed bone

| Greater trochanter pressure sore

- Full-thickness skin loss

Ischial pressure sore

- Full thickness tissue loss with exposed bone

FEATURES

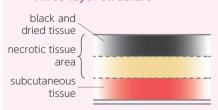
- 1 | Seven features of pressure sore assessment* can be taught using a combination of different pads and simulated liquid
- 2 | Ultrasound assessment of deep tissue injury Two types are included: normal and edema
- 3 | Cleansing, applying dressings or topical medications and procedures of Negative Pressure Wound Therapy (NPWT)
- 4 | Simulated exudate, and necrotic tissue set are included Excellent quality in appearance and texture
 - *For further information refer DESIGN-R 2020: https://www.jspu.org/english/publication/docs/DESIGN-R_manual_eng.pdf

SKILLS

- | Pressure Sore Assessment
- Palpation of the wound
- Ultrasound assessment of deep tissue injury (edema in the ischial area)
- Wound cleansing care
- | Applying dressings
- Applying topical medications
- Negative Pressure Wound Therapy
- Debridement of necrotic tissue
- Pressure Sore Prevention

KEY FEATURES

Necrotic Tissue Removal set Three-layer structure





Sciatic pressure sore: Ultrasound assessment of deep tissue injury Two types are included: normal and edema







Normal

Edema

DESCRIPTIONS

ISPECIFICATIONS

Size: W44 x D40 x H38 cm / W17.3 x D15.7 x H15 in. Weight: 3.8 kg / 8.4 lbs SET INCLUDES

1 lower body torso four types of sacral pressure sore pads ischial pressure sore pad stage IV two types of echo pads*

consumables set necrotic tissue removal set* storage case

instruction manual

ISET VARIATIONS

Full set (MW63): 11446-000 Basic set (MW63B): 11446-100

MATERIALS Soft resin Latex free

marked* are for full set only

REPLACEMENT PARTS

11446-010 1 consumables set 11446-020 simulated pus

11446-030 simulated exudate

11446-040 simulated blood 11446-050 simulated necrotic tissue 11446-200

1 necrotic tissue removal set 11446-220 1 base for necrotic tissue removal 11446-210 pad for necrotic tissue removal

11446-070 set of two types of echo pads

1 body for MW63 / B 11446-060

<sacral pressure sore pads>I 11446-000-01 stage II 11446-000-02 stage III

11446-000-03 stage IV (granulation) 11446-000-04 stage IV (pockets)

11446-000-05 1 ischial sore pad stage IV

US-21

41950-000





DVT (Deep Vein Thrombosis) Phantom

For ultrasound screening of DVT (Deep Vein Thrombosis)

Product Supervision

Kenji Karino, Professor, Clinical Skill-Up Center, Simane University Hospital



FEATURES

- 1 | Faithful reproduction of blood vessel meandering, branching, and thrombus
- 2 IThe built-in blood vessels allow for milking method as well as observation of compression of the vessels by applying pressure with a transducer
- 3 | Familiarize yourself with the assessment of venous thrombosis in the lower limbs

SKILLS

| Screening for deep venous thrombosis in the lower limbs | Observation of blood flow by milking method

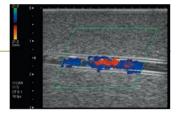
SPECIFICATIONS

Size: W27 x D17 x H47 cm each W10.6 x D6.7x H18.5 in. each Weight: 3.0kg each 6.6lbs each

DESCRIPTIONS

SET INCLUDES

- 1 lower limb manikin
 1 ultrasound calf phantom (incorporated)
- 1 talcum powder
- 1 storage case
- 1 instruction manual



* Ultrasound scanner is not included.

US-17

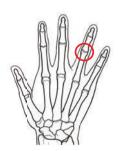
41933-000



Rheumatoid Hand Phantom

Ultrasound examination is a key skill for early diagnosis on rheumatoid arthritis



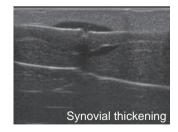


FEATURES

- 1 | For skills training of ultrasound examination on rheumatoid arthritis Synovial thickening and increased synovial fluid are simulated on middle and
- 2 | ring finger

SKILLS

| Ultrasound examination on rheumatoid arthritis



SPECIFICATIONS

Size: W17 x D5 x H21 cm W6 x D2 x H8 in. Weight: 0.6kg/ 1.32lbs

SET INCLUDES

- 1 hand manikin
- 1 instruction manual
- 1 storage case
- 1 talcum powdei

DESCRIPTIONS -

MATERIALS

Polyurethane elastomer Latex free

*Ultrasound scanner is not included.



Lung Ultrasound Training Phantom ECHOLUNG

Simple, durable and effective tool to learn the basics of lung ultrasound

Hirosaki University School of Medicine & Hospital Department of General Medicine Tadashi Kobayashi



FEATURES

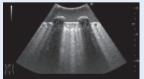
- 1 | Four kinds of units: A-LINE, B-LINE(few), B-LINE (many), pneumonia and pleural effusion to learn the basics of lung
- 2 | Palpable ribs as body surface landmarks to learn positioning of the transducer
- 3 | Anatomy includes: lung, chest wall, ribs
- 4 | No special storage needed
- 5 ISuitable for training in large groups



A-LINE



B-LINE

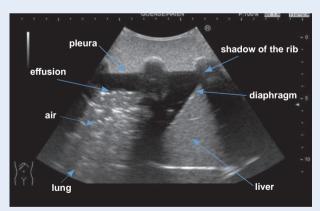


B-LINE(many)

SKILLS

Handling and manipulation of probe on lung ultrasound. | Scanning the lungs to evaluate pneumonia findings.

ANATOMY



Pneumonia and pleural effusion

DESCRIPTIONS

SPECIFICATIONS

Size: Body: 32×25×12.5cm/13×10×4.9 in. Module: $14.8 \times 11.8 \times 11$ cm/ $5.8 \times 4.6 \times 4.3$ in.

Weight: Body: 1.9kg

A-LINE/B-LINE/B-LINE (many): 0.9kg each Pneumonia and pleural effusion: 1.4kg

SET INCLUDES

- 1 main body
- kinds of lung modules x 1 set
- 1 instruction manual
- 1 storage case

Full Set (41946-100)

- talcum powder

OPTIONAL PARTS

41946-110 4 kinds of lung modules x 1 set

talcum powder 1 storage case

US-20

41947-000





Ultrasound Guided Tube Feeding Phantom

Anatomically correct neck model for Ultrasound Guided Tube Feeding Training

Product Supervision Hirosaki University Hospital, General Medical Department. Dr. Kobayashi Tadashi



FEATURES

- 1 | Anatomically correct neck model
 - Thyroid Gland
 - Trachea
 - Esophagus
 - Sternum
 - Collarbone
 - Carotid Artery
 - Jugular Vein
- 2 | Realistic neck ultrasound images
- 3 | Usable with real ultrasound diagnostic devices
- 4 | Allows the confirmation of the proper Nasogastric Tube Placement with ultrasound
- 5 | Inner switch for tube insertion direction; trachea/esophagus for ultrasound verification of esophageal insertion and exclusion of misplacement

SKILLS

- | Proper handling and manipulation of probe on neck ultrasound
- | Feeding tube insertion
- | Confirmation of tube placement by ultrasound
- Neck scan to evaluate the tube position



Ultrasound image

DESCRIPTIONS -

■ SPECIFICATIONS
Size: W31 × D16 × H17 cm
W12.2 × D6.3 × HD6.7 in.

Weight: 2.8kg 6.2lbs

SET INCLUDES

- 1 main body
- 1 ultrasound neck block
- 1 nasogastric tube
- 1 urethane block
- 1 syringe
- 1 talcum powder
- 1 storage case
- 1 instruction manual

^{*} Ultrasound scanner is not included.

US-25 41957-000



164

Thyroid Biopsy Phantom

Enhance confidence in performing safe and accurate thyroid biopsies

Visualization of the thyroid and targets in reference to sonographic landmarks.

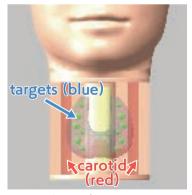


FEATURES

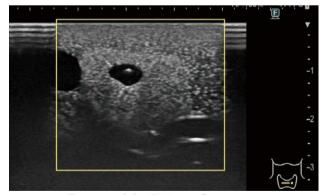
- 1 | Transparent and opaque biopsy blocks for introductory and advanced learners, featuring step-by-step acquisition of the biopsy skills.
- 2 | Targets in two sizes containing liquid for aspiration are embedded in the thyroid.
- 3 | Targets and carotids are colored to confirm successful sample collections as well as complications.

SKILLS

- | Ultrasound examination on the neck
- | Ultrasound-guided FNA (Fine Needle Aspiration)



Internal structure



Target and the FNA needle

■ SPECIFICATIONS
Size: W26 x D14 x H 12 cm
W10.2 x D5.5 x H4.7 in.

Weight: 1.5kg / 3.3lbs

Target size: 5mm dia., 7mm dia. 0.27in dia., 0.19in dia.

SET INCLUDES

- 1 face and neck manikin
- 1 transparent biopsy block
- 1 opaque biopsy block
- 1 storage case
- 1 instruction manual

DESCRIPTIONS -

MATERIALS
Soft resin, hydrogel, hard resin
Latex free

REPLACEMENT PARTS
41957-010 2 biopsy blocks
(duo set :
transparent + opaque each one)

Ultrasound scanner and needles are not included.

MW82 11486-000





Femoral Arterial Puncture Trainer

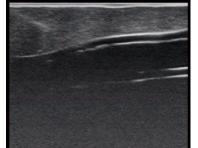
Hands-on femoral arterial access training both with ultrasound-guided and landmark-guided procedures.

Boost your confidence and skill in arterial blood sampling



FEATURES

- 1 | Lifelike arterial pulse
- 2 | Palpable superior iliac spine(ASIS) and pubic bone
- 3 | Realistic needle resistance against tissue and artery wall
- 4 | Natural counter-flow
- 5 | No puncture trace remains on the injection site
- 6 | Leak-free connections





DESCRIPTIONS

SPECIFICATIONS
Size: W33 x D35 x H15 cm / W13.0 x D13.8 x H5.9in. (manikin size)
W20 x D16 x H13 cm / W7.9 x D6.3 x H5.1 in. (pump size)

Weight: 1.5kg/3.3lbs Power: AC100-240V, 50/60 Hz MATERIALS
Soft resin
Latex free

| Ultrasound-guided femoral artery puncture

| Landmark-guided femoral artery puncture

| Blood sampling

Ultrasound scanner and needles are not included.



11351-110







Ultrasound Guided Arterial Puncture Training Pads

Enhanced Training with the M99: Master Ultrasound-Guided Radial Arterial Puncture

Boost your confidence and skill in arterial blood sampling



Ultrasound Puncture pads



Training with M99 Arterial Puncture Training Wrist

FEATURES

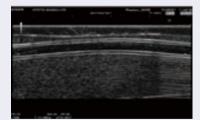
- 1 | Palpable pulsation of arterial pulse
- 2 | Realistic needle resistance against tissue and artery wall
- 3 | Natural counter-flow
- 4 | Radial arterial line placement can be simulated
- 5 | No puncture trace remains on the injection site
- 6 | Leak-free connections

SKILLS

- | Ultrasound-guided
- -radial artery puncture
- -artery blood sampling
- -radial line placement



Transverse Plane



Longitudinal Plane



IABP Measurement (Arterial pressure values are not simulated)

DESCRIPTIONS -

■ REPLACEMENT PARTS

11351-110 2 ultrasound puncture pads

11351-120 2 ultrasound puncture inner pads

11351-130 2 ultrasound puncture outer pads

11388-400 10 cotton swabs red

MATERIALS
Soft resin
Latex free

■ RECOMMENDED DEVICES AGB Kit 22-25G MW4

11383-000





Ultrasound-Guided Thoracentesis Simulator

MW4A 11383-100

Ultrasound-Guided Thoracentesis Simulator - Strap-on set -

Ultrasound-Guided Pericardiocentesis Simulator

MW17 11396-000

Ultrasound-Guided Thoracentesis/ Pericardiocentesis Simulator

Product Supervision

Takahiro Amano, M.D.

Vice President
Senior Vice-Dean, Postgraduate School
Professor and Director, Center of Postgraduate
Medical Education
International University of Health and Welfare
Honorary Director, Sanno Medical Center



SKILLS

Thoracentesis

- | Patient positioning
- | Recognition of anatomical landmarks by ultrasound
- | Assessment of level and volume of pleural effusion
- | Determination of insertion site
- | Needle insertion and collection of fluid

SKILLS

Pericardiocentesis

- | Patient positioning
- | Visualization of pericardial fluid under ultrasound scanning
- | Landmark palpation
- | Needle insertion to the pericardial space
- | Aspiration of pericardial effusion

DESCRIPTIONS

S	ET INCLUDES	MW4	MW4A	MW15	MW17
1	adult chest model	/		1	1
1	mid-axially line unit	/	/		1
1	mid-scapular line unit	/	/		1
1	pericardiocentesis unit			/	1
1	pillow for positioning	/		/	1
1	explanation model for thoracentesis	/			1
1	instruction manual	/	/	/	1

Аe	s ries	MW4	MW4A	MW15	MW17
1	irrigator	/			/
1	funnel	/	1		/
1	syringe (50ml)	/	1	1	✓ x2
1	joint hose			1	/
1	tube with three-way stopcock	/	1		/
1	plastic jar	/	1		/

Thoracentesis

Simulate thoracentesis on both a torso and SP

This Ultrasound-Guided Thoracentesis Simulator features two types of puncture units: midscapular line access and mid-axillary line access. Strap-on (wearable) puncture units facilitate hybrid training sessions with simulated patients

FEATURES

- 1 | Palpable ribs
- 2 | Realistic needle-tip insertion and resistance
- 3 | Strap-on units to practice patient positioning and communication
- 4 | Two sites for access: right mid-scapular line and left mid-axillary line
- 5 | Volume of pleural effusion can be controlled to set different levels of difficulty
- 6 | Body torso for independent training (except for MW4A)

















Practice patient safety during pericardiocentesis with ultrasound guidance

This simulator allows trainees to insert the needle under ultrasound guidance, pierce the "pericardial sac" and aspirate pericardial fluid

FEATURES

- 1 | Durable and replaceable puncture pad
- 2 | Practice both the subxiphoid approach and parasternal approach through palpable and ultrasonic landmarks
- 3 | Realistic needle tip sensation during puncture of the "pericardial sac"



Identification of "Larrey's space" (left xiphisternal junction) for needle insertion



Inserting needle to the pericardial space with ultrasound guidance Ventricles, ribs, pericardium, liver and main artery can be visualized

SPECIFICATIONS

Torso size: W40 x D25 x H50 cm / W15.7 x D9.9 x H19.7 in. Thoracentesis pad size: W16 x D7 x H21 cm / W6.3 x D2.76 x H8.3 in. Pericardiocentesis pad size: W16 x D14 x H21 cm / W6.3 x D5.6 x H8.3 in. Weight: MW4: 9.17kg / 20.2lbs

MW15: 8.65kg / 19.7lbs MW17: 9.65kg / 21.27lbs

- DESCRIPTIONS -

MATERIALS Soft resin, hard resin Latex free

REPLACEMENT PARTS

11383-010 2 mid-axially line puncture pads

11383-020 2 mid-scapular line unit puncture pads | for MW4, MW17, MW4A

11383-030 2 replacement lungs

11394-010 2 pericardiocentesis pads for MW15/MW17

RECOMMENDED DEVICES

Thoracentesis: 22 G/ 23 G needle

Pericardiocentesis: 18 G needle

Ultrasound scanner and needles are not included.

M93C 11347-510



CVC Insertion Simulator III

CVC III facilitates a sequence of uninterrupted simulation experience for specialist training

From aseptic field preparation to final catheter placement









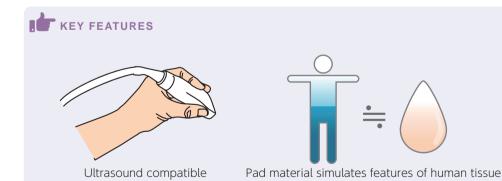
FEATURES

- 1 | Repeatable Insertion practice for obtaining the best technique for patient safety
- 2 | Both landmark-guided insertion and ultrasound-guided techniques can be practiced
- 3 | The frictionless tissue-like simulation pad allows for realistic sensation during CVC placement

SKILLS

Take complete steps to a successful CVC insertion

- | Perform hand hygiene practices and prepare aseptic field
- | Decide on insertion site via ultrasound guidance or observation and palpation of landmarks
- | Insertion under ultrasound guidance or via landmark technique Confirm flashback
- | Advance guidewire and sheath
- Insert catheter





Anatomically accurate features including 3 insertion sites and rib cage

REPLACEMENT PARTS

11347-260 1 pulsation unit

11347-320 irrigation bottle

11347-210 2 introductory ultrasound

11347-240 2 CVC placement pads

training blocks REAL VESSEL

DESCRIPTIONS -

SPECIFICATIONS Size: W40 x D20 x H 34 cm W15.7 x D8 x H13.5 in.

SET INCLUDES

- 1 male upper torso manikin
- CVC placement pads
- 1 skin for cannulation training transparent anatomical block
- 2 artery tube (transparent): 2 type
- 2 vein tubes (blue): 2 type
- vein pipes
- pulsation unit (for landmark technique)
- irrigation bottle (for UG technique)

MATERIALS Soft resin, hydrogel, hard resin Latex free

1 sample needle

- syringes (2.5ml, 50ml)
- - introductory ultrasound training block REAL VESSELS
- instruction manual

Ultrasound scanner and needles are not included.

11347-300,500 M93UB/U





CVC Insertion Simulator II

Conduct a variety of CVC insertion and management simulations with the assistance of 3 interchangeable pads



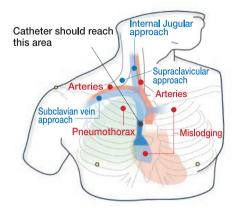
Product Supervision

Masahiro Tanabe, M.D., Ph.D., Professor Director General Medical Education Center Chiba University School of Medicine

Kinya Sando, M.D., Ph.D., Professor Director Department of Human Dietetics Graduate School of Human Science Osaka Shoin Women's University

Masanori Hoki, M.D., Ph.D., Professor Department of Human Dietetics Graduate School of Human Science Osaka Shoin Women's University

Joho Tokumine, M.D.Ph.D., Department of Anesthesia, Kawatetsu Chiba Hospital



FEATURES

- 1 | Realistic ultrasound-guided CVC
- 2 | Landmark puncture pad with anatomically correct vein bifurcations simulates mechanical complications including pneumothorax, mislodging and artery puncture*
- 3 | Transparent anatomical block for anatomical understanding and guide wire manipulation
- 4 | Introductory ultrasound training block to acquire basics of ultrasound-guided venous access
- 5 | Both internal jugular and subclavian (axillary) veins are accessible

SKILLS

- | Ultrasound-guided CVC
- | Landmark-guided CVC*
- | Ultrasound-guided venous access
- | Prevention of mechanical complications

*Landmark pad is included only in M93UB set

F KEY FEATURES



Transparent anatomical block



Ultrasound training block

DESCRIPTIONS



Ultrasound puncture pad

SET VARIATIONS

COMMON

- 1 male upper torso manikin
- skin for cannulation training
- 1 transparent anatomical block
- introductory ultrasound training block
- 1 irrigation bottle
- syringes (2.5ml, 50ml)
- 1 sample needle
- 1 instruction manual

- 1 landmark puncture pad
- ultrasound puncture pad
- 10 cotton swab red
- 10 cotton swab blue
- 2 plastic jars air bulb

- ultrasound puncture pad
- 1 plastic jar

REPLACEMENT PARTS

11347-280 2 landmark puncture pads 11347-170

2 ultrasound puncture pads 11347-210 2 introductory ultrasound training blocks

11347-320 irrigation bottle 11388-400 10 cotton swab red 11402-010 10 cotton swab blue

Ultrasound scanner and needles are not included.

SPECIFICATIONS

Weight: 2.3kg/5lbs

MATERIALS

Soft resin

Latex free

Size: W40 x D20 x H 34 cm

W15.8 x D7.9 x H 13.4 in.

MW18





Ultrasound-Guided PICC Training Simulator

New, innovative, human-like material for perfect visualia tion

An uncomplicated design with replaceable puncture site and anatomically accurate features including the rib cage, sternum, bifurcation, plus visible tip placement in the superior vena cava



Product Supervision
Joho Tokumine, M.D., Ph.D.,
Department of Anesthesiology,
Kyorin University School of Medicine

11398-000







FEATURES

- 1 | Excellent image quality and visualization of the needle tip for ultrasound-guided venous access
- 2 | Movable shoulder to demonstrate positioning
- 3 | Realistic flashback in needle provides confirmation for successful venous access
- 4 | Ribs and right clavicle provide anatomical understanding of correct PICC placement
- 5 | Anatomically correct bifurcation of the vein
- 6 | Simulation of cannula malposition

SKILLS

- | Ensure patient comfort and position
- | Hand hygiene and preparation of sterile field
- | Identify puncture site
- | Ultrasound-guided insertion
- | Insertion of dilator and guide wire
- Insertion of sheath
- | Insertion of catheter











Ultrasound guided puncture

Movable shoulder

Malpositioning

- DESCRIPTIONS

SPECIFICATIONS
Size: W79 x D38 x H18 cm

W31 x D14.9 x H7 in.

Weight: 4.5kg/10lbs

1 instruction manual

storage case

SET INCLUDES

- 1 male upper torso with the right arm
- 2 PICC puncture pads10 cotton swabs red
- 1 iar
- 1 syringe

MATERIALS
Soft resin, hard resin
Latex free

REPLACEMENT PARTS
11398-010 2 PICC puncture pads
11388-400 10 cotton swabs red

RECOMMENDED DEVICES PIC catheter 4Fr., 50-60cm

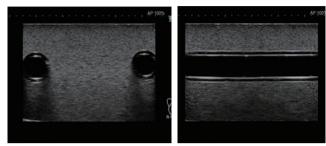
Ultrasound scanner and PICC instruments are not included.



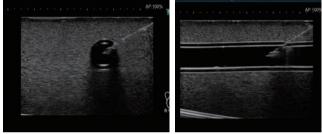
Introductory Ultrasound Training Block REAL VESSEL

Provides training in hands-eye coordination and basic skills in ultrasound-guided venous access





Localizing the vessels and the target sites



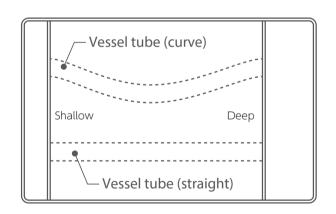
Penetrating the vessel wall with the needle kept in view

FEATURES

- 1 | 2 simulated vessel lines: straight and curving
- 2 | Lines have slope represent vessels with different depth
- 3 | Vessel wall yields under pressure of a needle tip

SKILLS

- | Visualization and localization of the vessels
- | Probe manipulation
- | Basics for ultrasound-guided vessel access



DESCRIPTIONS -

SPECIFICATIONS
Size: W17 x D10.5 x H4.5cm
W6.7 x D 4.1 x H1.8 in
Weight: 0.5kg / 1.1lbs

SET INCLUDES

2 introductory ultrasound training block

MATERIALS
Soft resin
Latex free

RECOMMENDED DEVICES

REPLACEMENT PARTS

M43E



11348-500, -M, -D



Ultrasound Compatible Lumbar Puncture / Epidural Simulator

Lumbar puncture training with ultrasound guidance

Anatomically correct puncture block offers excellent ultrasound images







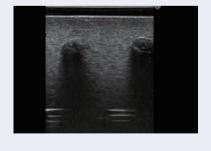
FEATURES

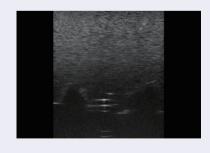
- 1 | Durable and replaceable parts for repetitive practice
- 2 | Adjustable to an upright or lateral position
- 3 | Translucent block makes the needle trace visible
- 4 | Interchangeable parts for other landmark and fluoroscopic procedure training

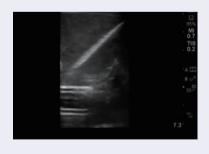
SKILLS

- | Ultrasound-guided lumbar puncture
- | Ultrasound-guided epidural anesthesia
- | CSF collection and CSF pressure measurement









DESCRIPTIONS -

SPECIFICATIONS Size: W33 x D21 x H30 cm W13 x D8.3 x H11.8 in.

SET INCLUDES

- lumbar region model
- ultrasound lumbar puncture/epidural block
- ultrasound lumbar region skin cover
- 1 two way support base
- 1 irrigation bag
- syringe
- 1 storage case
- instruction manual

MATERIALS

Soft resin, polyurethane elastomer Latex free

REPLACEMENT PARTS

11348-190 1 ultrasound lumbar puncture /epidural block

11348-230 1 ultrasound lumbar region skin cover for M43E

11348-160 1 supporting stand

SET VARIATIONS

11348-500 M43E light skin tone 11348-500-M M43E medium skin tone

11348-500-D M43E dark skin tone

Ultrasound scanner and needles are not included.

US-24





Elementary Cubic Phantom BLACKCUBE

Acquire skills to envision three-dimensional shapes from two-dimensional sections (echo images)
For elementary training of ultrasound scanning

Product Supervision

41955-000,100

Tadashi Kobayashi, M.D. Ph.D Graduate School of Medicine Endowed Course Development of Community Healthcare



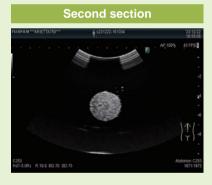
FEATURES

- 1 | Each cube contains a geometrical three-dimensional object, which is externally invisible
- 2 I All six surfaces of the cube allow for scanning
- 3 | Facilitates learning the basics of grasping threedimensional shapes with an ultrasound scanner
- 4 | Combinations of different cubes allow for skills assessment as well as practical trainings

SKILLS

- | Visualization and measurement of geometrical objects with an ultrasound scanner
- | Infer three-dimensional shape based of 2-D ultrasound images from six surfaces









Set Variations

	Basic set 41955-000	Full set 41955-100
Sphere (large)	•	
Sphere (m all)	•	
Double p here		
Ellipe id	•	
Cly inder	•	
Cone	•	
Triangular py amid		
Star b aped prim		

DESCRIPTIONS

SPECIFICATIONS

Size: W10 x D10 x H20 cm each W3.9 x D3.9 x H3.9 in. each

SET INCLUDES

6-8 types of ultrasound phantom cube

- 1 talcum powder
- 1 storage case
- 1 working book

Weight: 1.0 kg each 2.2 lbs each

- 1 quick reference cards
- 1 instruction manual

REPLACEMENT PARTS

- 41955-010 A. Sphere (large)
- 41955-020 B. Sphere (small)
- 41955-030 C. Double sphere
- 41955-040 D. Cylinder
- 41955-050 E. Cone
- 41955-060 F. Ellipsoid
- 41955-060 F. Ellipsoid 41955-070 G. Star-shaped prism
- 41055-080 H. Triangular pyramid
 - * Ultrasound scanner is not included.



Fundamental Ultrasound Phantom





This oval phantom helps sonographers with basic trainings

FEATURES

- 1 | Phantom for basic manipulation of ultrasound transducer
- 2 | Recognition of shape, echogenicity, distance, and practice of horizontal transducer works

SKILLS

- Interpret 2-D cross sectional images into the shape of 3-D dimensional objects
- 10 objects are embedded
- Adjusting Time-Gain Compensation to obtain suitable density
- | Measuring dimensions and distance
- Transducer handling to obtain accurate 2-D cross-section image
- | Flat and spheroidal surfaces provide a variety of difficulty







DESCRIPTIONS -

Weight: 2kg/ 4.4lbs Size: W24 x D16 x H10 cm / W9.5 x D6.3 x H3.9 in.

Polyurethane elastomer Latex free

MATERIALS

SET INCLUDES

ISPECIFICATIONS

- 1 phantom
- targets layout diagram
- 1 talcum powder
- storage case

US-4

*Ultrasound scanner is not included.

41902-000



Breast Ultrasound QA Phantom

Ensure highly detailed images for reliable breast cancer examinations

Ultrasound QA phantom for high precision imaging in the high frequency sonography, typically around 10 MHz, required in breast examination For monthly basic quality check of ultrasound images along with longer term quality assurance to maintain consistency in performance of scanners and transducers



Mass targets block

Sonic velocity: 1434 m/sec at 25℃ Attenuation coefficient: 0.59 dB/ cm MHz at 25℃Acoustic Impedance: 1.37 rayl at 25℃

Integrated targets: gray scale targets/ cyst targets

Dot targets block

Sonic velocity: 1442 m/sec at 25℃ Attenuation coefficient: 0.73 dB/cm MHz at 25℃ Acoustic impedance: 1.39rayl at 25℃

Integrated targets: dot targets/ 45 degrees line target

Mass targets block (contrast resolution)



Dot targets block (spatial resolution)





DESCRIPTIONS -

ISPECIFICATIONS

Size: mass targets block phantom size: $18 \times 7.5 \times 11 \text{ cm} / 7.2 \times 3 \times 4.4 \text{ in.}$ dot targets block phantom size: 13.5 x 7.5 x 11 cm / 5.4 x 3 x 4.4 in.

Weight: Mass 1.3kg / 2.7lbs Dot 1.0kg / 2.2lbs

ISET INCLUDES

- 1 mass targets block
 - dot targets block
- 1 thermometer
- storage case
- 1 instruction manual

MATERIALS

Urethane elastomer, acryl, nylon Latex free

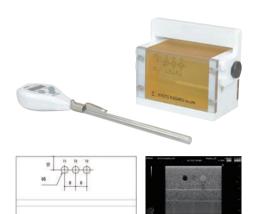


NEW

Small Parts Basic QA Phantom

Excellent for the routine maintenance of image quality in ultrasonography as well as the aging of devices and transducers

Product Supervision
The Japan Association of
Breast and Thyroid Sonology (JABTS)



QA items

Image quality and aging of the transducer

KYOTO KAGAKU co..LTD

FEATURES

- 1 | Compact size allows imaging in a single scan, saving time and simplifying the process
- 2 | To ensure the verticality of the entrance beam, two horizontal wires are embedded and the supporting guide frame secure the transducer in its home position
- 3 | For monthly basic quality test along with longer term quality assurance to maintain consistency in performance of scanners and transducers
- 4 | Longevity and stability of phantom material ensured by 5-year-testing process
- 5 | To maintain the internal temperature of the phantom (23° C to 26° C), a thermometer is provided

ACOUSTIC FEATURES

Sonic velocity: 1434(±1) m/ sec at 25℃

Attenuation coefficient: 0.59 dB/ cm MHz at 25°C

Density: 0.954g/m3

Acoustic impedance: 1.37 rayl at 25℃

Integrated targets: Gray scale targets in three steps, at 10mm depth

DESCRIPTIONS

SPECIFICATIONS

Size: W10.3 x D5 x H8 cm W4 x D1.97 x H3.15 in. Weight: 0.33kg/ 0.72lbs

SET INCLUDES

- 1 phantom1 thermometer
- 1 Instruction manual

MATERIALS

Urethane elastomer, acryl, nylon Latex free

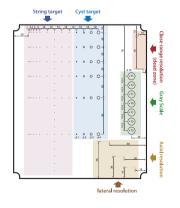
US-2

41338-010



Ultrasound QA Phantom (Multi-Purpose Phantom N-365)

Multipurpose Phantom (N. 305) KYOTO KAGAKU COLITB



Durable and stable

Useful both for daily assessment and further research. Gray scale for evaluation, cyst targets with non-resonance cylinders, line targets for geometrical evaluation including close range (dead zone) resolution, axial and lateral resolution are prepared for scanning. The phantom is designed to allow scanning from all four side walls.





Gray Scale

String target

_____ DESCRIPTIONS

SPECIFICATIONS
Size: W19 x H22 x D7 cm
W7.6 x H8.8 x D2.8 in.
Weight:3.6kg / 7.9lbs

Sonic velocity: 1432m/ sec at 25 degrees C Attenuation coefficient: 0.59 dB/ cm MHz at 25 degree C Acoustic impedance: 1.38 rayl at 25 degree C

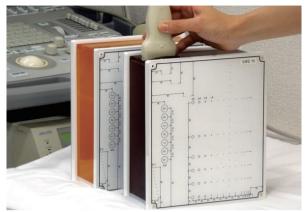
MATERIALS

Urethane elastomer, acryl, nylon Latex free

SET INCLUDES

- 1 phantom
- 1 carrying case

Features of Ultras und Phantom Materials



Comparis n of 2004 phantom and 2012 phantom.

Natori H, Igarab i T, Arab wa M.
Durable fine resolution test phantom for diagnos ic ultras und \$ em
ECR 2013 Pos er C-1765

"Durable fine resolution test phantom for diagnos ic ultras und \$ em", H.Natori 2013

Materials for Ultras und Phantoms

a panes patent No. 3650096

Durable, stable with homogeneous granular background reflection with

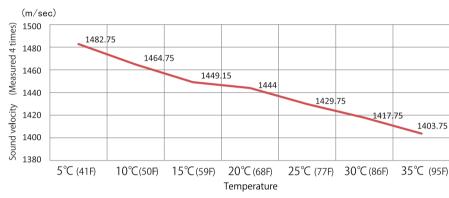
ee llent and o ntrollable eb ogenic ties

Sonic ve loc ty 1434m/e c at 25 degrees C

Density 0.954g/m

Attenuation rate: 0.57dB/m MHz at 25 degrees C Ao ut ic impedane : 1.37 raly at 25 degrees C

	15 degrees C	25 degrees C	35 degrees C
Speed of sound	1449.5 m/sec	1434.1 m/sec	1403.9 m/sec
Attenuation rate	0.58 dB/cmMHz	0.57 dB/cmMHz	0.55 dB/cmMHz



Building the Future of Ultrasound: Our New Healthcare Innovation Hub









We would like to introduce our new factory building (inaugurated April 2023) which specializes in medical imaging phantoms. This state-of-the-art facility not only allows enhances our manufacturing abilities but also serves as a hub for demonstrating the usage of Kyoto Kagaku phantoms worldwide. The second floor houses the ultrasound phantom team with a number of 3D printers for current manufacturing needs.

The third floor features the "working commons," which serves as a web broadcasting studio for online training. Additionally, visitors can explore product exhibition rooms and simulated hospital environments for interactive learning experiences. Our lounge area is open to visitors from all over the world, creating an environment for communication and the exchange of innovative ideas. We invite you to visit Kyoto and join us for tea in our new building where conversations may spark ideas for the next generation of phantoms.

Toshigreki Talcosjanier

Ex mples of a s om made phantoms

We accept custom order items tailored for your needs, such as:

Study tool for innog tion,

Phantoms meeting e rtain training requirements to promote s andardize d or new method of examination, Phantoms used Demonstration and user-training tool for deive suppliers

*The following phantoms are examples of custom made phantoms. Not for general sales.

Biliary model







A user training phantom for percutaneous transhepatic biliary drainage (PTBD).

Ultras und and/or X-ray guided proe - dures

Removable common bile duct (CBD) to ao mmodate a si mulated mas lesion or sone., etc

Urinary trat model



A demonstration/user training phantom for percutaneous nephrostomy/nephroureteret omy proe dures

Ultrae und guided proe dures

The bladder is trans arent to demons rate the a theter plae ment under direct is on. The k dney tise allows repeated as s with wide diameter a theters without be owing mark of puncture is te.

Abe s drainage model





A use r training phantom for pero taneous nephros omly nephroureteret omy proe dures

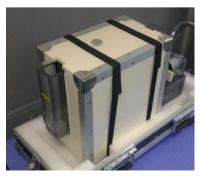
Ultras und, X-ray and / or CT guided proe dures

Three abscesses with different diameters and depth.

Abscess are refillable for repeated use.

The tissue allows repeated access with wide diameter catheters without showing marks of puncture site.

Endos pic Ultras und (EUS) Phantom



Stomach and duodenum are accessible with EUS probes, allowing to visualize panceas, gall bladder and live r.

Multi Modality Biops Phantom



Compatible with ultrao und and CT. Can also be used for Mammography. Check it out!

CORPORATE WEBSITE

Announcing our new mobile-friendly website, containing downloadable product descriptions on over 100 items.

Browse through the lineup of Kyoto Kagaku simulators and phantoms. All are made in Kyoto.



kyoto kagaku





https://www.kyotokagaku.com/en/products/

Radiology Phantom

Simulator

Ultrasound Phantom

Anatomical Model







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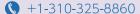


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