PRODUCT CATALOG
simulators and ultrasound phantoms

KYOTO KAGAKU

Simulators and Phantoms for Medical Education

Kyoto Kagaku Co., Ltd. was founded in post-war Japan in 1948. This company originated from Shimadzu Corporation, founded by Genzo Shimadzu Sr. in 1875 of the Meiji Period (1868-1912).

Kyoto Kagaku, formerly known as "the specimens division of Shimadzu", developed in the midst of Japan's modernization period. The company grew with the primary principle of making knowledge visible and tangible and has been creating unique models and specimens for scientific education. In 1930, we succeeded in creating our first manikin made out of synthetic materials. Our products have since become accepted worldwide, contributing to the advancement of education, academia and industrial research.

Today, our activities are widely involved in the field of education for medical and healthcare professionals. Our customers range from nurses and caregivers, physicians and surgeons, radiographers and sonographers, patients and students, to residents and doctors in practice. In order to contribute to medical education for not only the present but our future generations, Kyoto Kagaku will continue to pursue innovation and hold high standards for our products.

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- ■ Obstetrics /Neonatal / Pediatric
- ■ Patient Care
- ■ Physical Examination
- ■ Clinical Skills -Injection/Puncture-
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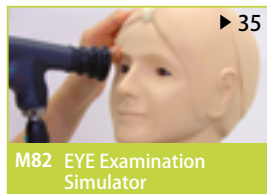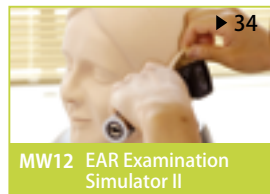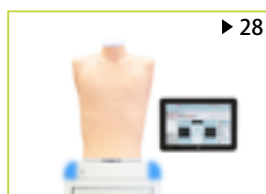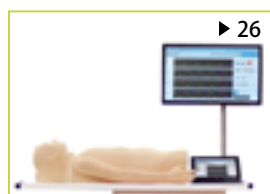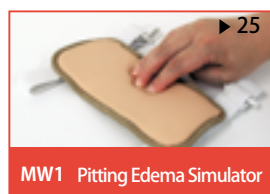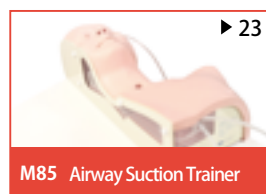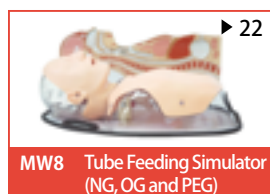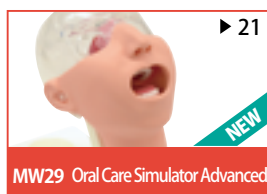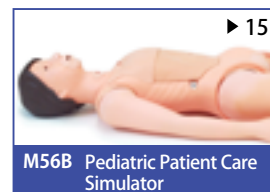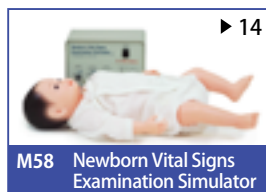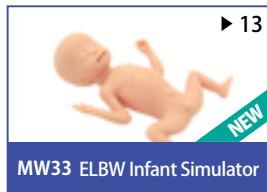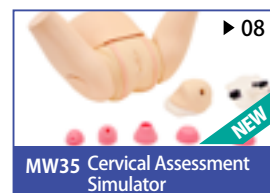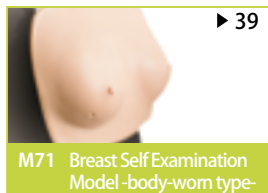
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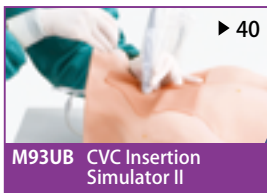
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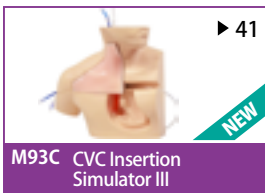
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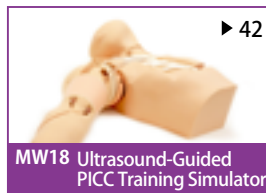
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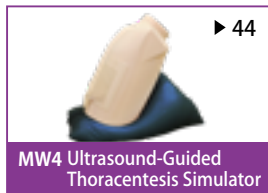
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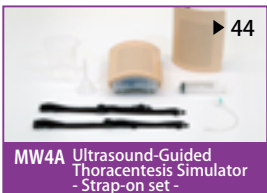
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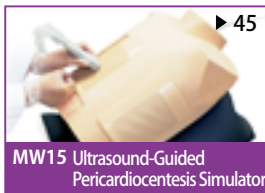
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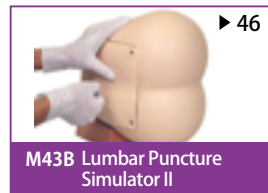
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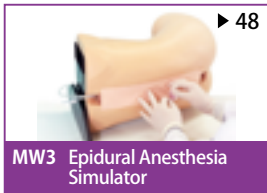
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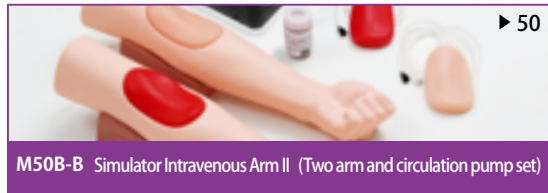
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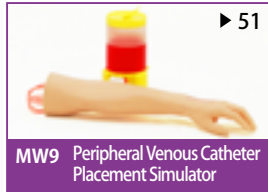
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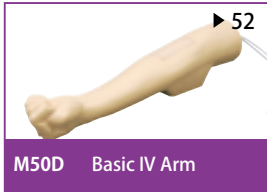
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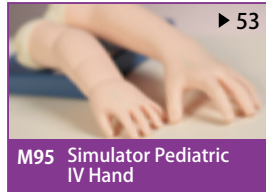
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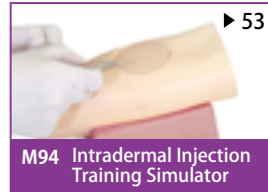
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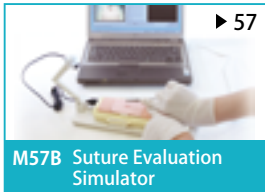
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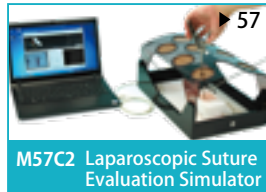
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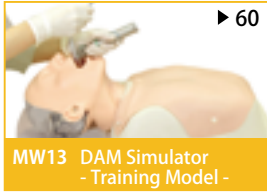
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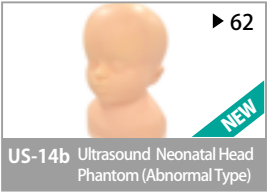
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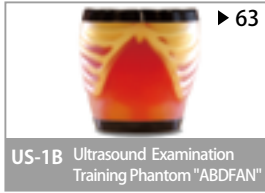
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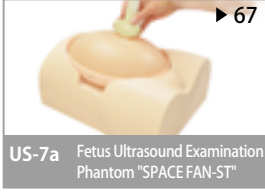
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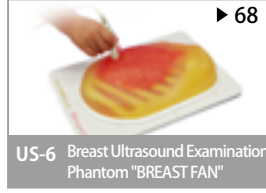
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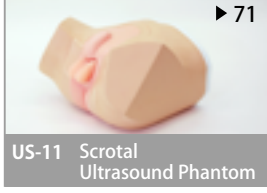
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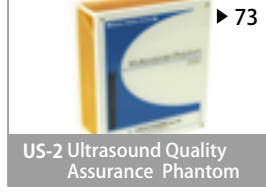
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Obstetric Examination Simulator is a true-to-life representation of a 39-40 week's pregnancy torso, that allows training in fundamental examination skills for prenatal checkup including palpation, fetal heart auscultation, and abdominal measurements.

Features

1. Soft and elastic tissue material that provides true-to-life sensation of palpation
2. Anatomically correct pelvis and fetus
3. A variety of fetal position, orientation and lie with one fetal unit
4. Authentic fetal heart sounds recorded from a real fetus

Training Skills

Auscultation

- Sounds recorded by Doppler stethoscope
  - Umbilical blood flow
  - Umbilical blood flow and fetal heart sounds (posterior and anterior)
  - Fetal heart sounds
    *Auscultation using a Doppler stethoscope is not possible.
- Sounds recorded through a conventional stethoscope

Palpation

- Leopold's maneuvers
- CPD assessment (Seitz method)

Measurement

- Maternal abdominal girth
- Fundal height
- External pelvimetry

Auscultation
(**fetal heart sounds**)

Sounds recorded by Doppler and conventional stethoscope are prepared for training. Sounds are controlled wirelessly by the remote control, including selection of sounds, volume and heart rate setting as well as switching between internal and external speakers.

Auscultation with a Pinard stethoscope

Auscultation with a conventional stethoscope
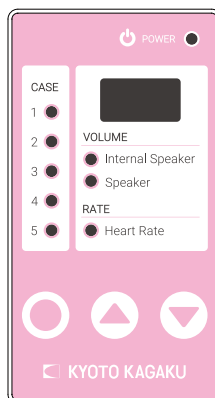
Remote control

- Five variations of sounds
  - Sounds recorded by conventional stethoscope
    - Fetal heart sounds
  - Sounds recorded by Doppler stethoscope
    - Fetal heart sounds
    - Umbilical blood flow
    - Umbilical blood flow with fetal heart sounds (posterior and anterior)
      *Auscultation using a Doppler stethoscope is not possible.
- Volume control
- Control of fetal heart rate (60-180)
- Switching between internal and external speakers

* A Pinard stethoscope and a conventional stethoscope are not included.

Palpation
(Leopold's maneuvers, CPD assessment)

Anatomically correct landmarks of pelvis and the fetus. The innovative tissue material provides realistic tactile feeling. The fetal unit allows various fetal lie, presentation and position and offers training opportunity of CPD assessment with Seitz method.

■ Leopold's maneuvers

Palpate parts of the fetus such as head, buttocks and the trunk through the steps from the first to the fourth maneuvers to assess fetal lie, presentation and position as well as degree of fetal descent.

First maneuver

Fourth maneuver

■ CPD assessment (Seitz method)

Height of fetal head against the pubic symphysis can be changed by rotating the fetal unit to prepare different scenario for CPD assessment (Seitz method).

CPD assessment (Seitz method)

pubic symphysis

−   ±   +
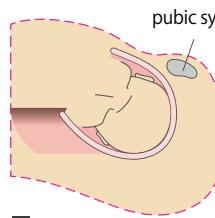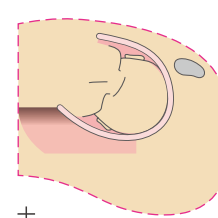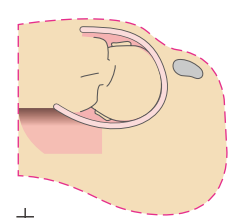
Measurements
(maternal abdominal girth, fundal height, external pelvimetry)

Maternal body measurement to estimate fetal weight, development and change in the volume of amniotic fluid can be performed on the manikin. Anatomically correct landmarks include pubic symphysis, navel, xiphoid process, iliac crest, and the greater trochanters.

Maternal abdominal girth

Fundal height

A variety of external pelvimetry

Distantia spinarum
(distance measured between iliac spines)

Distania cristarum
(distance measured between the prominent points of iliac bones)

Distania trochanterica
(distance between the prominent parts of trochanter major)

External oblique diameter

* Measuring instruments are not included.

Specifications：

Set Includes:	Manikin Size:	Power:	Replacement parts:
1 pregnancy torso	Size: W30 x D 60 x H30 cm	AC100-240V (main unit)	(11414-000)
1 AC adaptor	Weight: 11.2 kg	Power Consumption: 1W	Skin cover for MW34
1 remote control			
1 talcum powder		Materials	
1 instruction manual		Soft resin, hard plastic	

Obstetric Training Simulator -complete set-

NEW

Comprehensive training set with the platform of the maternal body for skills training in pelvic vaginal examination during labor and delivery assistance.

Features

For all training skills

● Genital area made of innovative material that excels in elasticity, durability, and resilience, offers repetitive training.

Delivery assistance

● Anatomically correct vaginal canal, ischial spines, pubic symphysis and coccyx that facilitate training with anatomical understanding.

● Elastic external genitalia, realistic shape of vaginal canal and the holding handle for the maternal body to facilitate simulating a smooth delivery.
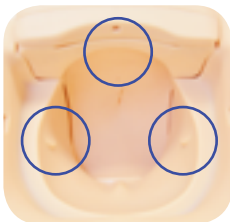
Cervical examination

● Five interchangeable stages of cervical dilation module can be installed with a single action. Descent of the fetal head can also be set.

● Anatomically correct landmarks including the ischial spine and the pubic symphysis

● Anterior fontanelle can be touched to determine the fetal position.

Perineorrhaphy (perineal repair)

● Repetitive suture training for the first-degree perineal tears.

* Suturing instruments are not included.

Cervical examination

Training Skills
- Cervical examination
  - ▸ Determination of station using landmarks of the ischial spine and the pubic joint to assess the descent of the body
  - ▸ Assessment of cervical dilation
- Speculum examination
- Procedures of observation and cervical cytology
- Procedures of urinary catheterization

Pelvic vaginal examination   Urinary catheterization

* For replacement parts, refer to page 8.

Delivery assistance

Training Skills
- Delivery assistance for different delivery positions (dorsal, all-fours)
- Perineal protection
- Delivery of fetus (forceps delivery, vacuum extraction)
- Clamping, tying and cutting of the umbilical cord
- Delivery of the placenta
- Insertion of a urinary catheter

Perineal protection   Delivery assistance   Cutting the umbilical cord   Delivery of the placenta

* For replacement parts, refer page 9.

Perineorrhaphy (perineal repair)

Training Skills
- Perineorrhaphy (perineal repair)
  - ▸ Single interrupted suture
  - ▸ Vertical mattress suture

Specifications：

Common Components:	Parts for pelvic examination	Parts for Delivery Assistance	Parts for Perineorrhaphy
1 maternal body	1 vagina unit	1 fetus	1 genitalia unit
1 genitalia unit (for pelvic examination and delivery assistance)	1 set of cervical dilation inserts (5 variations)	1 placenta	(for perineorrhaphy)
1 talcum powder	1 holder for the cervical dilation inserts	3 umbilical cords for omphalotomy	
3 lubricant (150ml)		1 tray	
1 instruction manual		5 velamen sheets	

External genitalia made of the new material and anatomically correct vaginal canal provides true-to-life hands-on training in cervical examination to determine Bishop score from the final stage of pregnancy to the first stage of the labor.

Features

1. Genital area made of innovative material that excels in elasticity, durability, and resilience, offers repetitive training.
2. Five Interchangeable cervical dilation inserts can be set by a single action.
3. Anatomically correct landmarks including the ischial spines and the pubic symphysis
4. Anterior/posterior fontanelles to determine the fetal position

Training Skills

● Cervical examination
  ▶ Determination of Bishop score (cervix score) using landmarks of the ischial spines and the pubic symphysis
  ▶ Assessment of cervical dilation
  ▶ Procedures of urinary catheterization
  ▶ Procedures of cervical cytology
● Speculum examination

Key Features

Eternal genitalia that excels in elasticity, durability and resilience

Ischial spines and pubic symphysis to determine fetal station

pubic symphysis

ischial spine   ischial spine
          coccyx
pelvis
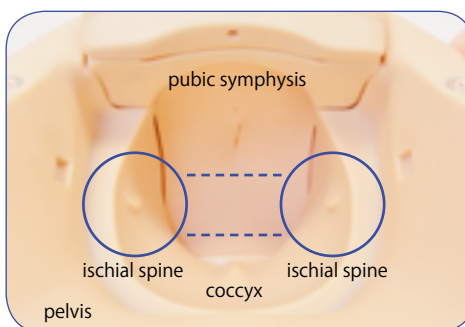
Station zero, the line that connect ischial spines can be recognized.

Cervical dilation insert can be attached by a single action.

Descent of the fetus can be set by the lever on the holder. (from -3 to +3)

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 maternal body	1 holder for the cervical dilation inserts	W74 x D44 x H33.5 cm 10.3kg	(11415-010) 1 set of cervical dilation inserts (5 variations)
1 genitalia unit	3 lubricant (150 ml)		(11415-020) 3 lubricant (150 ml)
1 vagina unit	1 talcum powder	Materials	(11415-030) 1 genitalia unit (for pelvic examination and delivery assistance)
1 set of cervical dilation inserts (5 variations)	1 instruction manual	Soft resin, hard plastic	

Vaginal Delivery Assistance Simulator

Elastic external genitalia and realistic shape of the vaginal canal provides for a highly realistic training session, allowing the flow of skills from the perineal protection to the delivery of the placenta.

## Features

1. Genital area made of innovative material that excels in elasticity, durability, and resilience, offers repetitive training.
2. Anatomically correct vaginal canal, ischial spine and pubic joint that facilitate training with anatomical understanding
3. Elastic eternal genitalia, realistic shape of the vaginal canal and the holding handle for the maternal body facilitate simulating a smooth delivery.
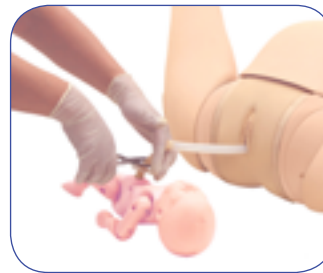
Training Skills

- Delivery assistance for different delivery positions (dorsal, all-fours)
- Perineal protection
- Delivery of the fetus (forceps delivery, vacuum extraction)

- Clamping, tying and cutting of the umbilical cords)
- Delivery of the placenta
- Inspection of the velamen

Key Features

Realistic delivery of a baby with an elastic and resilient external genitalia

Perineal protection
Anal sphincter protection ▶ Delivery assistance ▶ Smooth delivery of the baby

◀

Clamping, tying and cutting of the umbilical cord ▶ Delivery of the placenta ▶ Inspection of placenta and velamen
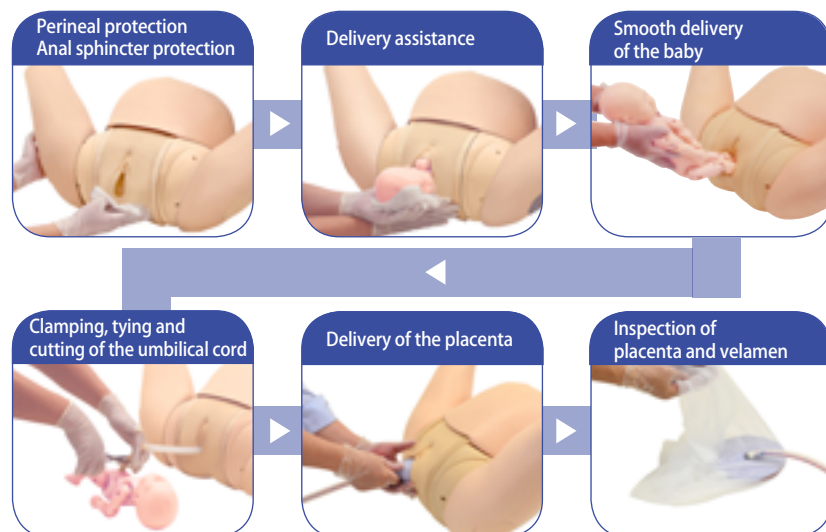
Skills training associated with anatomical understanding

Position of the fetus against the pelvis can be observed under direct vision during the delivery.

Two possible birth positions

Dorsal position
All-fours position

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:	
1 maternal body	1 talcum powder	W74 x D44 x H33.5 cm 11.2kg	(11415-030) 1 genitalia unit	(11416-010) 1 fetus
1 genitalia unit (for pelvic examination and delivery assistance)	5 velamen sheets		(11416-020) 1 placenta	(11416-030) 10 umbilical cords for omphalotomy
1 fetus	3 lubricant (150 ml)		(11416-040) 5 velamen sheets	
1 placenta	1 tray	Materials		(11415-020) 3 lubricant (150 ml)
3 umbilical cords for omphalotomy	1 instruction manual	Soft resin, hard plastic	Replacement Parts:	
			(11417-020) 1 genitalia unit (perineorrhaphy) *skin included	

Perineorrhaphy Simulator

Represents a perineal tear that occurs in a vaginal delivery. The innovative tissue material allows repetitive training.

Features

1. Suture training for first-degree perineal tears
2. Genital area that excels in elasticity, durability and resilience for multiple training opportunities.
3. Optional genitalia unit for training with the maternal body.

Training Skills

● Perineorrhaphy (perineal repair)
  ▶ Single interrupted suture
  ▶ Vertical mattress suture
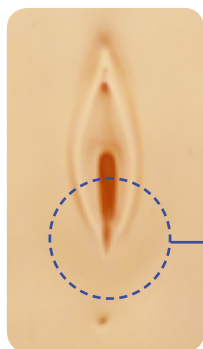
First-degree perineal tear

* Suturing instruments are not included.

Genitalia skin can be mounted on the genitalia unit (optional part) for realistic training with the maternal body.

Specifications：

Set Includes:	Manikin Size:	Replacement Parts:
1 genitalia insert	W16 x D23 x H20.5 cm	(11417-010) 2 genitalia inserts (perineorrhaphy)
1 supporting holder	1.5kg	Optional Parts:
1 talcum powder	Materials	(11417-020) Genitalia unit (frame, skin)
1 instruction manual	Soft resin	

Puerperal lower torso with anatomically correct landmarks and elastic abdominal wall facilitates realistic training in assessment of uterine involution in the early puerperium.

Features

1. Anatomically correct landmarks for palpation including the pubic symphysis, umbilicus, and the uterus
2. Soft and elastic abdominal wall that permits highly realistic palpation to assess the degree of uterine involution and to measure fundal height
3. Four variations of uterine inserts that are interchangeable

Training Skills

- Assessment of uterus in early puerperium
- Fundal height measurement with a measure tape and palpation of uterine fundus
- Perineal cleansing and assessment
- Demonstration of postpartum massage
- Assessment of anal prolapse

xiphoid process

ribs

uterine (first day)

(third day)

(fifth day)

pubis

4 variations of uterine inserts

| first day normal | first day abnormal | third day normal | fifth day normal |
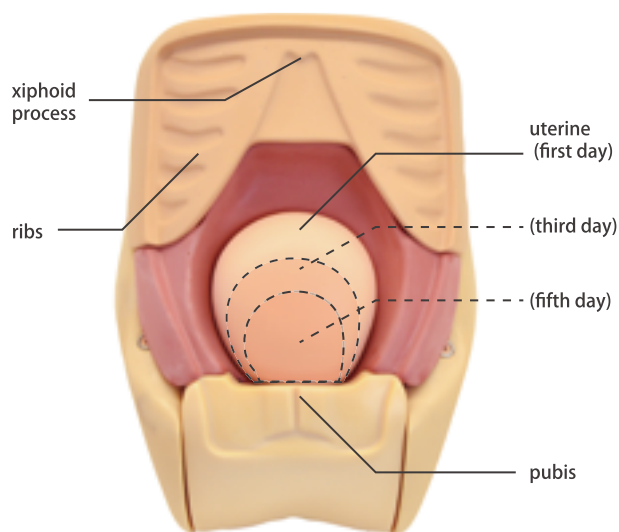
normal (boundary between abdominal wall and uterine is hard and clear)

abnormal (uterine is soft or unclear)

Palpation of uterine fundus

Measurement of fundal height

Specifications :

Set Includes:		Manikin Size:	Replacement Parts:
1 puerperal lower torso	1 talcum powder	W28 x D42 x H26 cm 7.4kg	(11418-010) 1 skin cover (for uterine involution assessment)
1 set of uterine inserts (4 variations)	1 instruction manual		(11418-020) 1 set of uterine inserts (4 variations)
		Materials	
		Soft resin	

NCPR Simulator is a full term newborn manikin that facilitates training of basic skills in neonatal care.
The simulator is suitable for NCPR training course.

Recommended Devices
Feeding tube: 5fr.
Suction catheter: 5fr.
Endotracheal tube: 3.0mm ID
Umbilical catheter: 5fr., 30cm
Laryngoscope: #0
BVM: 000

Features

1. Full body newborn manikin with ribs, bronchi, lungs, esophagus, and umbilical cord
2. Airway management training with confirmation of bilateral/unilateral ventilation.
3. Soft and realistic umbilical cord with 3 vessels for an array of skills including venous and arterial line placement as well as blood sample collection.
4. Feeding tube insertion and confirmation of the tube placement
5. Chest compression

Training Skills

● Basic neonatal care

  ▶ Changing body position, hygiene
  ▶ Palpation of the anterior fontanelle
  ▶ Clamping, tying and cutting of the umbilical cord
  ▶ Umbilical catheterization and care
  ▶ Tube feeding (nasal and oral)
    *tube placement can be confirmed by auscultation
  ▶ Suction (nasal, oral)
    *The product is not designed for bathing.

Palpation of the anterior fontanelle

Umbilical cord care, umbilical catheterization and blood sampling (one vein and two arteries)

Tube Feeding (nasal and oral) (tube placement confirmation with bubble sounds)

● Reanimation

  ▶ Chest compression
  ▶ Endotracheal intubation
  ▶ BVM ventilation

Chest compression

Endotracheal intubation (confirmation of unilateral/bilateral ventilation)

BVM ventilation (rise of the chest)

Airway suctioning (nasal and oral)

* Instruments are not included.

Specifications :

*for venous access training, MW21 NCPR Simulator Plus is available.

Set Includes:	Manikin Size:	Replacement Parts:	Replacement Parts (for MW21 only):
1 newborn manikin	50 cm, 2kg	(11400-010) 1 mask for MW21, MW32	(11300-040) 1 right arm skin
1 lubricant		(11400-020) 1 chest skin for MW21, MW32	(11400-050) 1 right leg skin
1 instruction manual	Materials	(11400-030) 4 umbilical cords for MW21, MW32	(11400-060) 4 vein tubes for right arm
	Soft resin	(11229-050) 1 lubricant	(11400-070) 4 vein tubes for right leg
			(11388-400) 10 simulated blood sticks (swab type)

MW21 NCPR Simulator Plus

NEW

NCPR Simulator Plus facilitates training of a variety of clinical skills required in NICU.
The simulator is also suitable for the neonatal CPR training course.

Features

1. Training features of PI catheter insertion from right leg and arm are added to MW32 NCPR Simulator

Training Skills

- In addtition to NCPR Simulator, NCPR Simulator Plus trains for:
  - ▶ IV access with transilluminator guidance Basilic vein, dorsal vein (right arm/hand), Saphenous vein, popliteal vein (right leg)

Recommended Devices

Feeding tube: 5 fr.
Suction catheter: 5 fr.
Tracheal tube: 3.0mm ID
Peripheral venous catheter: 28G x 30 cm
Umbilical catheter: 5fr., 30cm
Laryngoscope: #0
BVM: 000
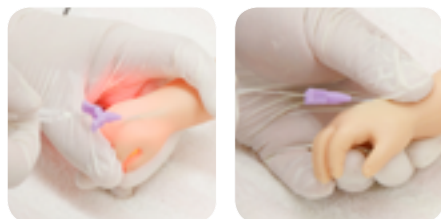
PI catheter insertion
(vein localization using a transilluminator is possible)

Specifications :

Set Includes:
1 newborn manikin
1 lubricant
1 instruction manual

* Instruments are not included.

MW33 ELBW Infant Simulator

NEW

ELBW Simulator offers training opportunity for fundamental skills in caring an extremely low birth weight infant.

Features

1. A male infant of 26-29 weeks gestational, 900g weight
2. Resuscitation training including chest compression and endotracheal intubation
3. Incorporated anatomies such as bronchi, esophagus and stomach allows for training in basic skills
4. Articulated head and neck

Recommended Devices

Feeding tube: 3fr.
Suction catheter: 3fr.
Endotracheal tube: 2.0-2.5 mm ID
Laryngoscope: #00
Urine catheter: 6fr.
BVM: neonatal (small)

Training Skills

- Changing body position, hygiene care in an incubator
- Assessment and measurement of whole body
- OG and NG Tube placement
- Insertion of urinary catheter
- BVM ventilation
- Chest compression
- Endotracheal intubation
- Nasal CPAP

*The product is not designed for bathing.

Endotracheal intubation
(confirmation of unilateral/bilateral ventilation)

Chest Compression

Procedures of tube feeding, oral and nasal airway suctioning

* Instruments are not included.

Specifications :

Set Includes:	Manikin Size:	Replacement Parts:
1 ELBW manikin	35 cm, 0.9kg	(11413-010) 1 mask for MW33
1 lubricant	Head circumference 28cm	(11229-050) 1 lubricant
1 instruction manual	Materials	
	Soft resin	

M59/M63 Newborn Bathing and Nursery Care Model
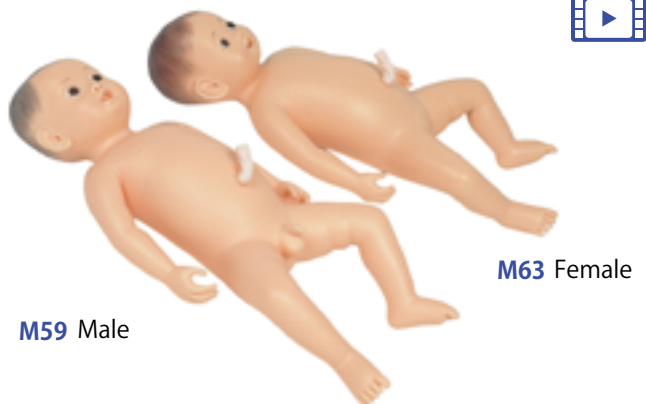
M63 Female

M59 Male

Multipurpose newborn for skills training.

This training model is a life-size seamless manikin of a 0-4-week-old infant, which has the weight and balance of the newborn as well as palpable anterior and posterior fontanel.

Features

1. Life-like, life-size newborn model
2. Non-rigid neck flexibility
3. The fonticulus anterior and posterior are palpable
4. The limbs can bend and stretch.
5. Waterproof: the model has a seamless, one-piece structure
6. The umbilical cord is removable.

Training Skills

- Bathing
- Umbilical cord care
- Bottle-feeding
- Ear and nose care
- Diaper and clothing changing
- Physical measurement

Specifications :

Set Includes:	Manikin Size:
1 newborn manikin	50cm
1 umbilical cord	
1 feeding bottle	
1 baby clothes	
1 cloth cover	

* A baby bottle is not included.

M58 Newborn Vital Signs Examination Simulator

Life-size newborn manikin for basic vital sign assessments

Newborn Vital Signs Examination Simulator is an effective tool for nurses to learn how to take vital signs of a newborn child.

Features

1. Arterial pulse in wrists, neck and temples
2. Rectal temperature can be measured.
3. Heart sounds are recorded from actual patients and synchronized with arterial pulses.
4. All vital signs can be controlled with the control unit.

Training Skills

- Vital signs examination
  -Heart sounds
  -Respiration
  -Pulses:
    superficial temporal, carotid and radial arteries (bilateral)
  -Body temperature (rectal thermometry)

Product Supervision
Keiko Takahashi, professor
College of Nursing Science, Fukui Prefecture University

Palpation of Pulses   Auscultation

Specifications :

Set Includes:	Manikin Size:
1 newborn manikin	50cm
1 control box	
1 thermometer	
1 baby clothes	
1 storage case	

* A stethoscope is not included.

M56B Pediatric Patient Care Simulator

Day-to-day, long-term care for pediatric patients

Pediatric Patient Care Simulator offers training of day-to-day pediatric patient care for healthcare professionals, teachers and others who need to acquire such skills.

Airway Suction (Oral)

Airway Suction (Nasal)

Airway Suction (Tracheostomy)

Feeding Tube Management

PEG Care

Positioning, Patient Handling

Male & Female Catheterization

Anatomical Understanding

Features

1. Life-like model of a 6-year-old
2. The simulator is able to sit in an upright position without support.
3. Oral, nasal and endotracheal airway suction
4. Both female and male genitalia are included for catheterization training.

Training Skills

- Positioning
- Patient handling
- Airway suction:
    oral, nasal or through a tracheostomy opening
- Percutaneous Endoscopic Gastrostomy (PEG) care
- Feeding tube management
- Male & female catheterization

Product Supervision
Medical Association of Osaka Prefecture
Pediatric Medical Care Exploratory Committee

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 pediatric manikin	1 irrigation bag	125 cm	(11355-030)
1 head & neck anatomy plate	1 strap-on IV venipuncture trainer		1 valve for catheterization
1 male & female genitalia	1 gym uniform		
1 syringe	1 set of catheter (sample)		

* Instruments are not included.

Patient Care Simulator "Yaye"

With its various patient settings and a range of training features, "Yaye" brings uninterrupted training flow in community care and in-hospital procedures.

Featuring more than 40 training skills, "Yaye" serves an array of trainees from students to experienced nurses.

Training Skills

Nasogastric tube feeding

Airway management, Intubation assistance

Oral and denture care, Oxygen mask, Stomach pumping

Assessment of chest and abdomen (observation, palpation and percussion)

Intravenous injection and infusion, IV route care (left median vein)

Tracheotomy care and management

Stoma care

Urinary catheterization, Enema, Vaginal douche, Digital disimpaction and Suppository insertion

TPN care

Foot bath

Hair care (shampooing, brushing and blowing)

Intramuscular and SC injection (shoulders)

Intramuscular and SC injection (hips)

IV route care (dorsal vein of left hand)

Intramuscular and SC injection (thighs)

Feeding	Exercise	Respiratory Care	Drug Administration	Assessment
● Tube Feeding (oral/nasal)	● Body positioning	● Oxygen inhalation	● Suppository	● Assessment of chest and abdomen
	● Passive exercise	● Airway suction	● Subcutaneous injection	● Procedure of vital signs taking
Elimination	● Wheelchair transfer	● Postural drainage	● Intramuscular injection	
● Enema		● Tracheotomy care	● Intravenous injection and infusion	**Pain Management**
● Urinary catheterization	**Hygiene**			● Fomentation
● Stoma care	● Oral care	**Wound Care**		
● Bowel irrigation	● Bed bathing	● Pressure sore care		**Others**
● Bedpan practice	● Partial bathing	● Bandaging	**Critical Care**	● Stomach pumping
● TPN care	● Change of clothes		● Intubation assistance	● Vaginal douche
	● Perineal care		● Chest compression	● Postmortem care
	● Hair care		● Airway management	
	● Grooming and appearance			

Features

ASSESSMENT OF CHEST AND ABDOMEN

Soft and elastic abdomen allows deep palpation

- Thoracoabdominal inspection, palpation and percussion
- Anatomical landmarks and soft tissue offer realistic training

Observation   Palpation   Percussion

APPEARANCE VARIETY

Patient variations with different age, sex and personality

Variations in face masks, wigs and external genitals offers wide possibilities of simulation settings and realistic training.

Easy Transformation

* The elderly face mask and the gray wig are optional parts.

INFUSION CARE AND MANAGEMENT

Considerate IV route training

- **Left median vein:**
  IV injection, infusion, securing cannula with tapes

- **Left hand dorsal vein:**
  Securing cannula with tapes, caring during infusion

INTUBATION ASSISTANCE

Airway management and CPR

Training of intubation assistance can be performed in setting of critical care such as perioperative period and in ICU.

- Preparation of the equipment
- Oral intubation (laryngoscope and video laryngoscope)
- Confirmation of successful ventilation by:
  - Observation of thoracic movement (lung expansion)
  - Auscultation of the chest
- Securing the tube in place with tape
- Chest compression

Specifications：

Set Includes:		Replacement Parts:	
1 manikin	1 set of simulated suppository	(11404-020) face mask (young)	(11251-330) simulated feces set
1 denture	1 set of simulated feces	(11404-040) wig (young)	(11251-320) simulated suppository set
1 wig (black)	1 lubricant (for airway suction etc.)	(11404-060) female genitalia (catheterization, enema)	(11251-040) 2 thigh injection pads
1 face mask (young)	1 lubricant (for catheterization etc.)		(11251-030) 2 shoulder injection pads
1 injection pad (median vein)	1 irrigation bag	(11251-310) female genitalia (suppository insertion, digital disimpaction)	(11251-050) 2 hip IM pads
2 shoulder injection pads	1 drainage pump (urinary bladder)		(11404-050) 4 injection pad (median vein)
2 thigh injection pads	1 drainage pump (rectum)	(11404-080) 6 valves for urinary catheterization	
2 hip IM pads	1 drainage hose		(11229-050) lubricant (for airway suction etc.)
1 female genitalia (catheterization)	1 pajama	(11251-350) rectal valve	
1 female genitalia (suppository insertion/digital disimpaction)	1 instruction manual		(11381-800) lubricant (for catheterization)
Manikin Size:		Optional Parts:	
152cm, 17kg		(11404-070) male genitalia	
		(11404-010) face mask (elderly)	
		(11404-030) wig (elderly)	

* Instruments are not included.

Basic Patient Care Simulator "Keiko"

* A wheelchair is not included.

Simple but high-quality, KEIKO reaches a wider range of trainees, including home-care nurses and caregivers

Keiko provides quality training for trainees and professionals who support long term care of patients in community and hospital.

Training Skills

Nasogastric tube insertion
Airway suction tube handling

Oral and denture care
Airway suction

Stoma care

Perineal care, Enema,
Suppository insertion,
Urinal catheter placement

Foot bath

Tracheotomy care
and management

Explanation on central
venous port

PEG care

Hand bath

Feeding	Exercise	Respiratory Care	Drug Administration	Assessment
● Tube Feeding (oral/nasal)	● Body positioning	● Oxygen inhalation	● Suppository	● Procedure of vital signs taking
Elimination	● Wheelchair transfer	● Airway suction		
● Enema	**Hygiene**	● Postural drainage		**Pain Management**
● Urinary catheterization	● Oral care	● Tracheotomy care		● Fomentation
● Stoma care	● Bed bathing	**Wound Care**		
● Bedpan practice	● Partial bathing	● Pressure sore care		**Others**
	● Change of clothes			● Vaginal douche
	● Perineal care			● Postmortem care
	● Hair care*			
	● Grooming and appearance			* optional

Features

BASIC PATIENT CARE	MEDICAL UNDERSTANDING

Oral Care

- Oral care on the bed and wheel chair
- Special care for the patient with feeding tube

- Brushing support
- Oral massage
- Denture care

Airway Suction

- Understanding the procedure

- Airway suction: oral, nasal and tracheotomy (*tube insertion only)
- Tube feeding: oral, nasal and PEG (*tube insertion only)

Pressure sores care

- Understanding the levels of pressure sores
- Support to the patients having pressure sores

- (Stage 2) Scapula
- (Stage 3) Great trochanter
- (Stage 4) Sacrum bone
- (Unable to judge) Heel

Daily care with medical understandings

- Stoma care
- Bed bathing for the patient with central venous port
- Perineal care for the patient with urinal catheter

Perineal care

- Anatomically correct genitals for detailed care

Body positioning and transfer

- Communication and appropriate handling to change the body positioning

- Changing body positioning
- Supporting to transfer the patient to a wheel chair

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:	Optional parts:
1 manikin	1 male genitalia	149 cm, 15 kg	(11405-010) female genitalia	(12746-020) tracheotomy tube
1 denture	1 under pants		(11405-020) male genitalia	(11251-320) simulated suppository set
1 wig	1 wrench		(11251-020) denture	
1 oral cover for suctioning	1 instruction manual		(11229-060) oral cover for suctioning	(11251-330) simulated feces set
1 female genitalia				(11405-030) pajama
				(11404-030) washable wig (elderly)

High quality models for catheterization training

High quality training in male urethral catheterization, perineal care and enema. Soft and anatomically correct genitals and realistic feeling of catheter insertion. Organ unit can be used independently without the lumbar torso, allowing training with SPs or full body manikins in clinical settings. The modular system realizes easy set-up, cleaning and maintenance, saving time and cost for training providers.

Features

1. Soft genitals allow realistic cleansing and other procedures such as holding the penis perpendicular to body.
2. Successful catheter insertion is confirmed by urine (water) outflow.
3. Manual bladder compression is possible.
4. Enema training in lateral position

Training Skills

- Intermittent catheterization
- Indwelling catheterization
- Perineal care
- Enema
- Localization of urethral meatus
- Localization of urethral meatus
- Cleansing
- Catheter insertion and placement
- Withdrawal of catheter
- Manual bladder compression

Enema Training

Passing catheter can be observed through transparent bladder reservoir.

Manual Bladder Compression

Training with SP

MW2C 11381-199-B

Genital unit and accessories for MW2A is available as MW2C.

MW2D 11381-299-B

Genital unit and accessories for MW2B is available as MW2D.

Specifications (MW2A or MW2B)：

Set Includes:		Manikin Size:	Replacement Parts:
1 lower torso manikin	1 rectum tube	W34 x D33 x H24 cm	(11381-300) 6 replacement valves for MW2A/B
1 genital organ unit	3 irrigation drainage tubes		(11381-610) 1 replacement female skin
3 valves (one is incorporated in the assembled unit)	1 lubricant		(11381-700) 2 replacement female meatus
	1 storage case		(11381-410) 1 replacement male skin
1 irrigation bottle	1 instruction manual		(11381-510) 2 replacement male meatus

* Catheters are not included.

An introduction to oral hygiene and dentistry

The life-like oral cavity and the denture with tooth disease provide oral care training which is close to the clinical practice.

Features

1. Oral Care Simulator Advanced has an anatomically correct oral cavity, trachea, esophagus and replacement dentures.
2. Denture with tooth disease provides training in assessment and care of the oral cavity.
3. The patient conditions and positions can be set easily.
4. This simulator allows for training in realistic oral cleaning procedure using of simulated residue.
5. This simulator provides training using water, and also training of suction.

Training Skills

- Observation of the oral cavity
- Care of the oral mucous membrane
- Brushing
- Removal of coat on tongue
- Cleaning of the oral cavity
- Care for humidity retention
- Replacement and maintenance of the denture
- Massage of oral cavity
- Understanding of airway suction

Oral Anatomy and Tooth Problems

- Spaced arch
- Food residue
- Anodontia
- Stomatitis
- Isolated tooth
- Coated tongue
- Crowding
- Gingival recession
- Root fracture
- Stump of a tooth

Patient Conditions

- Complete denture
- Dental problems
- Toothless
- Intratracheal intubation
- Tracheotomy
- Tube feeding

Patient Positions

- Sitting position
- Half sitting position
- Lateral position

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 head/neck manikin	1 mirror	W30 x D50 x H 32 cm	(11408-020) 1 normal denture
1 base	2 sponge-tipped swabs		(11408-030)
1 normal denture	1 toothbrush		1 denture with tooth disease
1 denture with tooth disease	1 denture brush		(11408-010) 1 simulated residue
1 denture case	1 carrying case		
1 simulated residue	1 instruction manual		
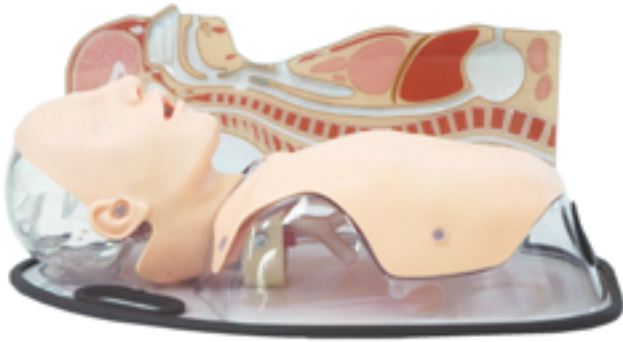
Tube Feeding Simulator (NG, OG and PEG)

Tube feeding training with anatomical understanding using real liquid food

Tube Feeding Simulator is an effective training tool for caregivers and healthcare professionals to acquire skills of enteral tube nutrition. The manikin has three routes for EN tubes and allows training with real liquid foods.

Features

1. Oral/nasal feeding tube insertion and PEG tube setting are possible.
2. Tube placement can be confirmed by auscultation.
3. The transparent structure allows direct observation of progress and placement of the tube.
4. The manikin can be set at Fowler's position.
5. Real liquid foods (formulas) can be administrated.
6. The tube feeding routes panel and the chest sheet facilitate demonstration and anatomical understanding.
7. The neck is flexible to learn appropriate neck/head positioning.

The manikin can be set at Fowler's position.

Training Skills

- Feeding tube insertion and confirmation of the tube placement (NG/OG)
- PEG tube setting and care
- Administration of liquid food (formula)
- Anatomical understanding
- Stomach pumping (lavage)

To facilitate anatomical understanding, the feeding routes panel for demonstration and the chest anatomy to overlay the manikin come with the set.
The panel is available separately as MW5.

Feeding Tube Insertion

Intranasal and oral feeding tube insertion

Confirmation of Tube Placement

Air sounds can be heard with a stethoscope.

PEG Care

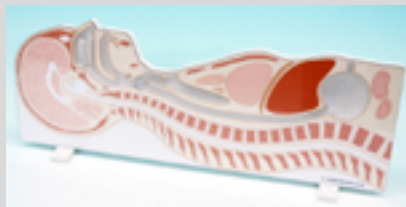Tube insertion in PEG and set with a balloon

Administration of Liquid Food (Formula)

Real liquid food can be administrated through three routes.

Specifications :

Set Includes:			Manikin Size:
1 male torso	1 funnel	1 chest sheet	W65 x D35 x H23 cm
1 support base	1 plastic cup	1 instruction manual	
1 drain tube	1 tube feeding routes panel		

Airway Suction Trainer

Airway suction training for caregivers and healthcare professionals

A representation of human respiratory organs, designed for temporary airway suction and catheter insertion practice. Effective tool with life-like tactile qualities for training in airway suction for choking patients.

Features

1. Realistic anatomy includes the mouth, tongue, oral and nasal pharynx, epiglottis, trachea and esophagus.
2. Catheterization pathways include oral, nasal or through the tracheostomy opening.
3. Life-size organs facilitate learning proper catheter insertion length.
4. The side window allows the passage of the catheter to be observed.
5. Realistic simulated sputum is sticky to the touch.
6. The trainer is washable and can be easily dismantled for cleaning.

Training Skills

- Temporary airway suction
  (intraoral and intranasal and endotracheal)

Nasal Suction

Oral Suction

Tracheal Suction

Specifications：

Set Includes:		Replacement Parts:	Manikin Size:
1 head & neck model with airway anatomy	1 metal tray	(11229-020) 1 replacement skin with trachea	W45 x D23 x H15 cm
	1 syringe	(11229-070) 1 simulated sputum	
1 bottle of lubricant	1 storage case	(11229-040) 2 sample catheters	
2 catheters	1 instruction manual	(11229-050) 1 lubricant	
1 bottle of simulated sputum			

Medical Foot Care Simulator

Basic foot care for quality of life of patients

Keeping patients' feet in a healthy condition makes a significant impact on the QOL of patients.
Medical Foot Care Simulator provides training for simple trimming of nails and callosities as well as general education on basic foot care.

Features

1. The replaceable nails, corn and callosities provide excellent training opportunities with true-to-life feeling.
2. The foot model helps to demonstrate anatomical landmarks, foot assessment procedures, foot massaging and other day-to-day treatment.

Trimming and
clipping of toe nails

Trimming and
removal of the callosities

Foot assessment
(demonstration)

Trimming and
removal of the corns

Training Skills

● Trimming and clipping of toe nails
　　(thickened nail, ingrown nail, nail ringworm)
● Trimming and removal of callosities
● Trimming and removal of corns
● Foot assessment (demonstration)

Product Supervision

Takako Egawa
Dean, Professor, Kansai University of Nursing and Health Sciences
Professor Emeritus, Kyoto University

Specifications :

Set Includes:	Manikin Size:	Replacement Parts:
1 foot model with swivel stand	W21 x D21 x H28 cm	(11273-020) 1 replacement parts set for M66 (toe nail A 20 pcs, toe nail B 20 pcs, callosity 10 pcs and corn 10 pcs)
20 toe nails A (thickened ingrown nail)		
20 toe nails B (thickened nail with ringworm)		
10 callosities		(11273-030) Replacement toe nail A 20 pcs
10 corns		(11273-040) Replacement toe nail B 20 pcs
1 instruction manual		(11273-050) Replacement callosity 10 pcs
		(11273-066) Replacement corn 10 pcs

* Instruments are not included.

MW1 Pitting Edema Simulator

Five variations of pitting edema examples

Features

1. Grades of the edemas are based on "Mosby's Guide to Physical Examination (7th ed.)"
2. The models can be attached to the lower thighs of an SP or a training manikin.
3. Pitting edema is classified into 4 levels by the degree of response to pressure and the depth of indentations.
4. The detachable fibula plate facilitates training simulation on the soft bases.

Training Skills

- Differentiation of the pitting edema: four different levels and a normal case
- Examination procedures for edemas on the lower thighs

Product Supervision
Junji Otaki
Professor of Tokyo Medical University

Normal	1+ Light Pitting	2+ Moderate Pitting

3+ Deep Pitting	4+ Very Deep Pitting

Specifications：

Set Includes:	Manikin Size:
5 variations of strap-on pitting edema model 1 piece each	W10 x D23 cm each

M69 Pressure Sores Care Simulator

Four stages of pressure sores for training

Features

1. The set consists of four types of models that explain each case and four types of sore skin to put on a patient care manikin.
2. The set facilitates both the classroom lecture and the practice according to each stage of the pressure sore.
3. Water color is included in the set.

Training Skills

- Pressure sores care
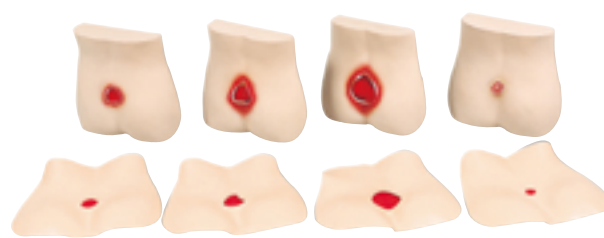
Specifications：

Set Includes:	Manikin Size:
4 types of the models for explanation	W38 x D38 cm each
4 types of the sore skins model	
1 set of water color paints	
1 set of brushes	
1 set of palettes	

Product Supervision

Tsunekazu Takashina, M.D., Ph.D., F.A.C.C., F.A.H.A. President, Japanese Educational Clinical Cardiology Society, Osaka

Masashi Shimizu, Ph.D., Professor,
Department of Mechanical and Environmental Informatics Graduate School of Information Science and Engineering, Tokyo Institute of Technology

Hone your senses and skills for bedside cardiology

Cardiology Patient Simulator "K" is a classroom staple for cardiology assessment throughout the world's educational institutes for over 20 years and the upgraded "K" Ver.2 offers an even more efficient and effective clinical training for cardiology.

Cases: (MODE 1) Comprehensive patient simulation with sounds, pulses, apex beats and ECG

No.	Normal heart simulation (12 cases)	No.	Heart disease simulation (14 cases)	No.	Arrhythmia (10 cases)
A-01	S2 split (-) HR: 60	B-01	aortic stenosis	C-01	sinus arrhythmia
A-02	S1 split (+)	B-02	mitral regurgitation	C-02	sinus tachycardia
A-03	S2 split (+)	B-03	mitral stenosis	C-03	sinus bradycardia
A-04	S2 wide split	B-04	aortic regurgitation	C-04	ventricular premature contraction (1)
A-05	S3 gallop	B-05	hypertrophic cardiomyopathy	C-05	ventricular premature contraction (2)
A-06	S4 gallop	B-06	mitral steno-regurgitation	C-06	ventricular premature contraction (3)
A-07	pulmonic ejection sound	B-07	pulmonic valvular stenosis	C-07	sino-atrial block
A-08	S3 and S4 gallop	B-08	atrial septal defect	C-08	atrio-ventricular block
A-09	innocent murmur	B-09	ventricular septal defect	C-09	atrial fibrillation
A-10	midsystolic click sound	B-10	tricuspid regurgitation	C-10	atrial flutter
A-11	S2 split (-) HR: 72	B-11	acute mitral regurgitation		
A-12	S2 split (-) HR: 84	B-12	patent ductus arteriosus		
		B-13	mitral valvular prolapse		
		B-14	dilated cardiomyopathy		

(MODE 2) Arrhythmia simulation, auscultation training with ECG

A		B		C		D	
A-01	normal sinus R	B-01	atrial flutter	C-01	VVI pacemaker	D-01	vpc (quadrigeminy)
A-02	sinus tachycardia	B-02	av block	C-02	atrial pacemaker	D-02	vpc (trigeminy)
A-03	sinus arrhythmia	B-03	av block & crbbb	C-03	vent pacemaker	D-03	vpc (bigeminy)
A-04	apc solitary	B-04	av block (digital)	C-04	av seq pacemaker	D-04	vpc (couplet)
A-05	apc bigeminy	B-05	av block (mobitz)	C-05	icrbbb	D-05	pvc (repetitive)
A-06	ectopic pacemaker	B-06	av block (mobitz)	C-06	crbbb	D-06	pvc (R-on-T type)
A-07	wondering pacemaker	B-07	av block (3:1&4:1)	C-07	clbbb	D-07	non-sustained VT
A-08	coronary sinus R	B-08	av & crbbb	C-08	clbbb	D-08	vent tachycardia
A-09	sinus bradycardia	B-09	paroxy atr tachy	C-09	clbbb (by ami)	D-09	vent flutter
A-10	ss syndrome	B-10	av junc R (svst)	C-10	wpw syndrome	D-10	vent fibrillation
A-11	atrial fibrillation	B-11	av junc R (pat)	C-11	wpw syndrome	D-11	vent R (sinus cond)
A-12	atrial flutter	B-12	av junc R	C-12	wpw syndrome	D-12	accel vent rhythm
A-13	atrial flutter fib	B-13	av junc contraction	C-13	vpc (solitary)	D-13	agonal rhythm

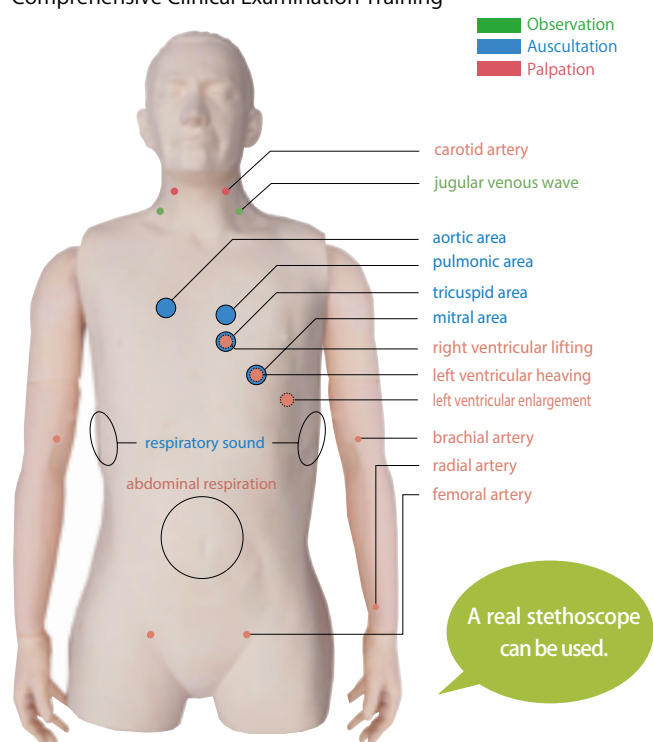* A stethoscope is not included.

Features

|

Physical findings of Simulator "K" Ver.2

Comprehensive Clinical Examination Training

- Observation
- Auscultation
- Palpation

carotid artery
jugular venous wave

aortic area
pulmonic area
tricuspid area
mitral area
right ventricular lifting
left ventricular heaving
left ventricular enlargement
brachial artery
radial artery
femoral artery

respiratory sound
abdominal respiration

A real stethoscope can be used.

Heart Sounds and Murmurs

Auscultation in relation to synchronized electrocardiograms and findings.
-differentiation of S1, S2, S3 and S4
-discrimination between systolic and diastolic murmurs

Palpation of Arteries

Slight variations of the arterial pulse waves under different cardiac conditions or arrhythmias can be detected by palpation.

Observation of Jugular Veins

The strength and timing of "α" and "V" waves vary with cases.

Palpation of Cardiac Impulses

RV, LV and DLV are simulated and can be palpated.

Monitoring Screen

Real time dynamic charts on the screen:
-phonocardiogram
-sphygmogram (CAP/JVP/AC)
-electrocardiogram (ECG)

Respiratory Sounds and Abdominal Movement

Respiratory cycle is represented to understand respiratory related phenomena.

Up to 5 Simulators at One Time

OSCE, group session and scenario based simulation

PC
Wireless

A   B   C   D   E

Up to five cardiology simulators with respective can be controlled by one wireless tablet.
The system realize:
- scenario based training that involves more than one patient.
- learning with comparison between related or easy case examples.
- skills assessment sessions with different cardiovascular stations.

Playlist System

Simulator "K" is not just for individual task training.
Incorporated "Play List Maker" facilitates creating and conducting scenario based training sessions which feature change in findings over time.

Playlist Maker facilitates:
- sessions with temporal change in physical findings.
- standardizing training contents among different instructors.
- saving time of preparation.

Ready-to-use

Simple connection and all-in-one unit structure.

Error Indicator

The error indicator performs check-up of the system to keep Simulator K in its best condition.

Specifications：

Set Includes:			Unit Size:
1 main unit with the model body	1 main monitor	4 textbooks	W140 x D75 x H170 cm
1 external speaker (built-in the unit)	1 control PC	2 instruction manuals	
1 PC / keyboard / mouse (built-in the unit)	1 rib sheet	-built-in help file of software operation	Power Consumption:
1 air compressor unit (built-in the unit)	1 storage cover	-instruction manual	400 W

MW28 Lung Sound Auscultation Trainer "LSAT" Ver.2

CE

Product Supervision
Chiharu Yoshii, M.D., Ph.D.,
Assistant Professor
Masamitsu Kido, M.D., Ph.D., Professor Division of Respiratory Disease, University of Occupational and Environmental Health, Japan

* A stethoscope is not included.

Used by "96%" of medical faculties in Japan and OSCE in South Korea, the new and improved "LSAT"!

Kyoto Kagaku's LSAT has upgraded to offer an efficient and effective training for respiratory sound auscultation. This unique and exclusive simulator is best suited for training in sound classification and is controlled by a touch-screen tablet.
36 lung sound cases can be played with or without the heart sound. Each case is accompanied by descriptions and clinical data of the patient including patient history, illustrations, radiograph and CT images.

Cases   Background heart sounds are now available in 5 volume levels.

| Normal	Abnormal
A01 standard A03 mildly strong sounds A05 mildly rapid A07 loud heart sounds	B01 weak: left lower area B02 weak: left whole area (adhesion) B05 weak: left whole area (pneumothorax) B07 absent: right middle and lower areas B09 weak: right whole area B11 absent: right whole area B13 weak: whole area B15 bronchial breathing
Coarse Crackles	Fine Crackles
C01 right lower area C03 both lower area C05 right upper and middle area C07 left lower area C09 both upper area C11 whole area	D01 both lower area D03 both middle lower area D05 whole area (IPF) D07 whole area (NSIP)
Wheezes	Rhonchi
E01 upper area 600-700Hz E03 upper area 350-450Hz E05 upper area 200-1000Hz	F01 trachea and upper area 150-250Hz F03 trachea and upper area 150-450Hz (polyphonic) F05 trachea and upper area 80-120Hz F07 whole area 80-200Hz
Miscellaneous continuous sounds	Miscellaneous
G01 stridors G03 squawks	H01 pleural friction rubs: right lower and middle area H03 pleural friction rubs: left lower area H07 Hamman's sign H09 Vocal fremitus

Specifications：

| Set Includes:		Manikin Size:
1 torso manikin	1 LAN cable	W39 x D45 x H 130 cm
1 control PC	1 LAN adapter	
1 PC (built-in the unit)	1 external speaker (built-in)	
1 AC adapter	1 lung T-shirt	
1 power cord	2 instruction manual	

Features

Auscultation sites

Anterior
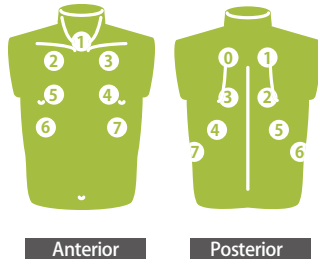
Posterior

- Anterior
  1. trachea
  2. upper right lung field
  3. upper left lung field
  4. middle left lung field
  5. middle right lung field
  6. lower right lung field
  7. lower left lung field

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

Case Information

Images of plain X-ray, CT and bronchoscopy are included.
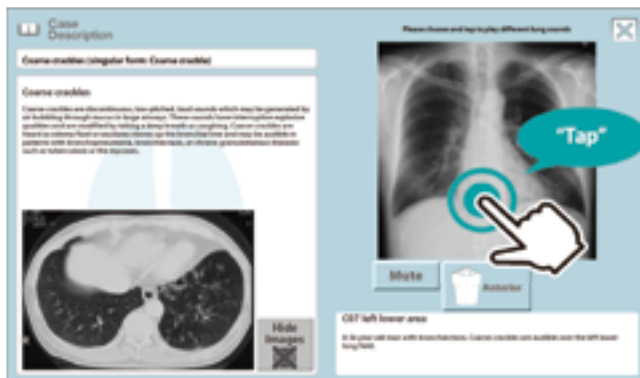
☞ Lung sound of each area can be played by tapping the plain X-ray image

Classification of Lung Sounds

LSAT features lung sounds classification of the American Thoracic Society based on acoustic analysis of recorded clinical sounds. With this approach, lung sounds are categorized as continuous (wheezes, rhonchi, or stridor) or discontinuous (crackles). Crackles are further identified as fine or coarse.

Lung Sounds

Breath sounds
- Normal sounds
- Abnormal sounds
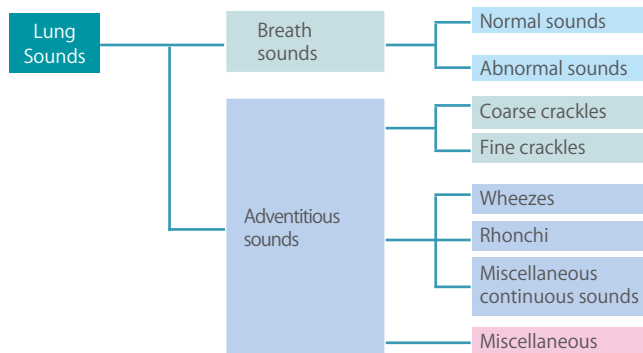
Adventitious sounds
- Coarse crackles
- Fine crackles
- Wheezes
- Rhonchi
- Miscellaneous continuous sounds
- Miscellaneous

Wireless multi-unit operation

Up to five "LSAT" can be controlled by one wireless control PC.

1 2 3 4 5

- Each simulator can be individually set with a respective case.
- Cases can be switched promptly by clicking at any time during session.

Anterior and posterior auscultation at the same time

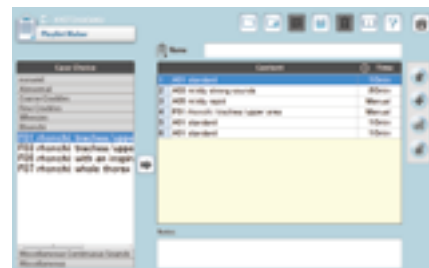Two or more trainees can work simultaneously.

Indication of inspiration and expiration with the LED light panel

Note the rhythm of breathing while listening to the sound during examination.

Create a custom playlist

Choose from 36 sound cases. Create a custom playlist to optimize training sessions.

Error Indication System

The simulator automatically scans for errors during start-up.

Effective combination for chest examination

Two simulators, the Lung Sound Auscultation Trainer and the Cardiology Patient Simulator, make a complete duo for chest examination training. With 36 lung sound cases and 88 cardiology patient cases, the Simulator "K" Plus offers and extensive array of scenarios that make it a great addition to classrooms and training sessions.

Training Skills

- Comprehensive cardiopulmonary physical examination training
- Obtaining reliable skills in auscultation skills of the chest
- A thorough understanding with realistic physical findings of anatomy

Auscultation of heart sounds

Observation of jugular veins
 * A penlight is not included.

Auscultation of lung sounds
 * A stethoscope is not included.

Features

1. Wireless remote control with touchscreen control panel
2. Up to five systems can be operated simultaneously.
   (all five in either cardiology mode or lung sound mode)
3. Ready-to-use with connection to power supply
4. Large monitoring screen for visual understanding
5. Outstanding sound quality: cases are recorded from actual patients
6. Natural propagation of the sound
7. Explanation windows for each case

Cardiology Patient Simulator:

Find out the details of features on page 26-27.

Lung Sound Auscultation Trainer:

Find out the details of features on page 28-29.

* The Cardiology Patient Simulator and Lung Sound Auscultation Trainer cannot be operated simultaneously.
* The Cardiology Patient Simulator software needs to be shut down to switch to Lung Sound Auscultation Trainer, and vice versa.

Specifications :

Set Includes:			Manikin Size:
SimK2 and LSAT2 main unit (includes a PC, a speaker, a keyboard and a mouse)	1 control PC	4 text books	Main unit:
	1 chest sheet	1 t-shirt for LSAT2	W140 x D 75 x H170 cm
1 monitor	1 protect cover	1 instruction manual	LSAT unit:
			W39 x D45 x H130 cm

Product Supervision
Toyoaki Yamauchi, MD, ND, PhD
Professor
Department of Nursing Graduate School of Medicine Nagoya University


Physiko can do what SP can not do.

Physiko is a physical assessment training simulator for medical and nursing students. Twelve preset example of outpatients are designed to cover typical complaints, facilitating training in assessment procedures, assessment skills and providing hands-on experience of important abnormal findings. New patients for your original scenario can be created by simply selecting contents from built-in data.

Cases

Assessment item	Condition		
Pupillary reflex	Normal	Pupillary construction	
	Pupillary dilation	Bilateral asymmetry	
Blood pressure	Arbitrary-setup		
Auscultation of lung sounds	Normal	Bronchial breathing	Wheezes
	Weak in the left lung	Coarse crackles	Rhonchi
	Absent in the right lung	Fine crackles	
Auscultation of heart sounds	S2 split(-)	Aortic stenosis	Atrial fibrillation
	S2 split(+)	Mitral regurgitation	Arterial flutter
	S3 gallop	Mitral stenosis	Premature ventricular contraction (single)
	S4 gallop	Aortic regurgitation	Ventricular flutter
	S3 and S4 gallop	Sinus tachycardia	Ventricular fibrillation
	Innocent murmur	Sinus bradycardia	*Sound volume adjuster*
Auscultation of bowel sounds	Normal	Decrease	Ileus
	Increase	Subileus	
ECG simulation	Normal	Ventricular flutter	
	Atrial fibrillation	Ventricular fibrillation	
	Atrial flutter	Myocardial infraction (acute stage)	
	Premature ventricular contraction	Myocardial infraction (subacute stage)	
	Ventricular tachycardia	Myocardial infraction (chronic stage)	
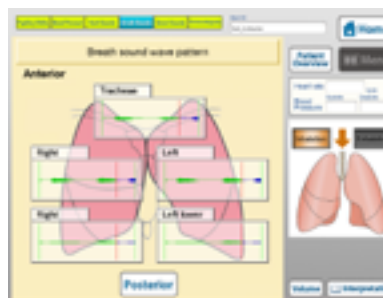
* A stethoscope and penlight are not included.

Patient Cases

Physiko's twelve preset patients cover typical outpatient complaints such as chest pain or smothering sensations.

Top menu   **Choose a patient**   **Start a session**

Cases   Comprehensive examination of 12 typical patients

Case	Age, Sex	Condition
Thoracic Pain	58 yrs, Male	Myocardial Infarction
	55 yrs, Male	Dissecting Aortic Aneurysm
	76 yrs, Female	Lung Infarction
	28 yrs, Male	Intercostal Muscle Ache
Abdominal Pain	26 yrs, Female	Ileus
	19 yrs, Male	Diarrhea

Case	Age, Sex	Condition
Lie Unconscious	36 yrs, Female	Brain Hypertension
Stuffy Feeling	84 yrs, Female	Pneumonia
	66 yrs, Male	Chronic Obstructive Lung Disease
	70 yrs, Male	Pulmonic Fibrosis
	73 yrs, Male	Heart Failure
	21 yrs, Female	Anemia

Lung sounds (posterior & anterior)
Bronchial breath sounds

Pupillary reflex (incl. bilateral asymmetry)

Arterial pulses

V1 V2 V3 V4 V5 V6

Bowel sounds

Heart sounds (A, P, T and M)

Cuff sensors

Blood pressure (right arm only)

RA   LA

Arterial pulse

RL   LL

ECG (12 leads)

Patient Cases Editor

Users can create a new simulated patient by selecting each findings from the built-in data.
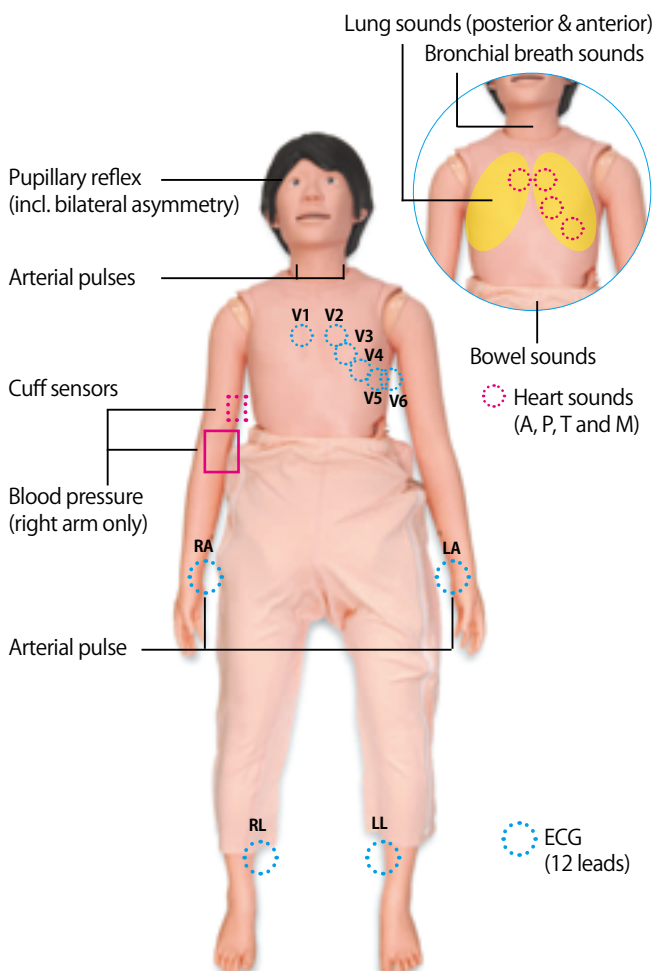
Skills Training
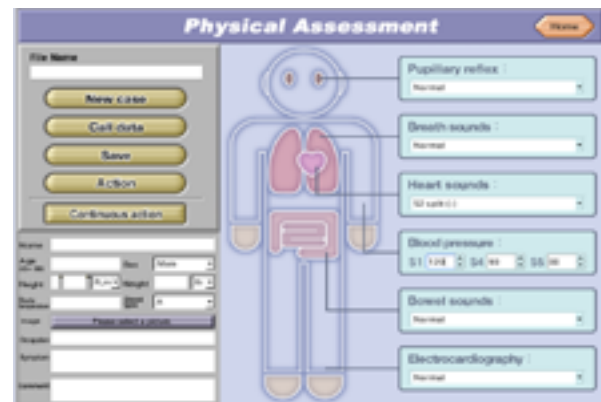
Physiko allows individual examination skills training.
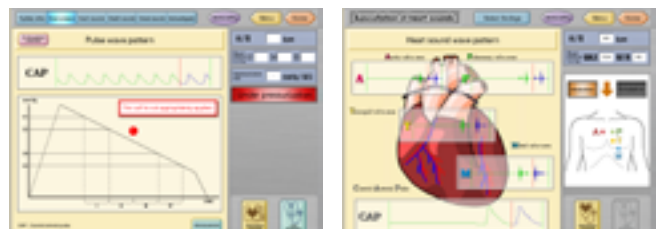
Specifications:

Set Includes:			Manikin Size:
1 manikin	1 terminal box	1 ECG electrodes unit	155 cm
1 laptop PC	1 sphygmomanometer unit	1 clothes	

EAR Examination Simulator II

$C\epsilon$

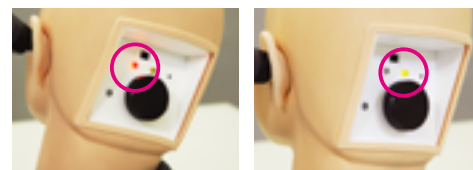## Otoscope training with an alarm for painful insertions

Ear Examination Simulator II is an upgraded trainer to acquire safe and reliable skills for examining the external acoustic meatus and tympanic membrane with a direct otoscope. Featured is an alarm when painful insertion is detected. The alarm has two modes: self-learning mode (with a beep), and instructor mode (silent).

Features

1. Alarm against painful insertion:
   -beep (self learning mode)
   -red light/yellow light (instructor mode)

2. 9 major cases are preset.
3. Quick switch between cases.

4. Ear canals come in 2 sizes.
5. Anatomically correct soft ear model that allows training in straightening the auditory canal by pulling the auricle.
6. Work with a real otoscope.
7. The manikin neck can be tilted.
8. Training is possible with both left and right ears.

Training Skills

- Ear examination with an otoscope
- Ear wax and foreign body removal

Cases

- Normal
- Serious otitis media (SOM)
- Mucoid otitis media (MOM)
- Chronic otitis media with perforation
- Acute suppurative otitis media (AOM)
- Cholesteatoma
- Tympanosclerosis
- Traumatic perforations
- Cerumen block

normal   cholesteatoma

Specifications：

Set Includes:		Replacement Parts:
1 manikin head and shoulder	1 set of foreign body removal kit -simulated ear wax, small toys, small sponge fragments and a spoon	(11391-010) ear units and foreign body set -4 types of ear units - 1 pair each ear exam(normal), ear exam(stenosis), FB ear(normal), FB(stenosis) -1 set of foreign body removal kit simulated ear wax, small toys, small sponge fragments and a spoon
1 types of ear units -1 pair each -exam ear (normal) -exam ear(stenosis) -FB ear (normal) -FB ear (stenosis)		
	1 instruction manual	
Manikin Size:		
W42 x D22 x H38 cm		

EYE Examination Simulator (3 steps)

Product Supervision

Japan Society for Medical Education
Working Group with the cooperation of:
Kansai Medical University Department of Ophthalmology

Cases

1. Normal eyeground
2. Hypertensive retinopathy:
   arteriolar vasoconstriction grade 3, arteriolosclerosis grade 1, hemorrhages and cotton wool spots, simple vein concealment
3. Simple/background diabetic retinopathy:
   microaneurysm, hemorrhages and hard exudates
4. Papilloedema (chronic phase)
5. Papilloedema (acute phase)
6. Glaucomatous optic atrophy:
   glaucomatous optic disc cupping and nerve fiber defect
7. Retinal vein occlusion (acute phase):
   flame-shaped hemorrhage and cotton wool spots
8. Retinal vein occlusion
   (after retinal laser photocoagulation)
9. Toxoplasmosis: retinochoroiditis
10. Age-related macular degeneration:
    macular exudates and subretinal hemorrhage

Specifications：

Set Includes:	
1 manikin head and shoulder	1 set of case slides
- 3 steps (2, 3.5, 5 mm diameter)	1 slide duster
- 1 slide holder with 3 steps depth setting	1 storage case
1 instruction manual	
Replacement Parts:	
(1120-010) 1 replacement fundus case slides (set of 10 cases)	
Manikin Size:	
W42 x D22 x H38 cm	

Fundus examination with 10 clinical images and variations of 3 pupil sizes and depth of focus.

EYE Examination Simulator is an innovative trainer for fundus examination, designed to allow examination of eyegrounds with the physician's own ophthalmoscope. Various cases can be set up for trainees using combinations of slides, depth and pupil diameter.

Features

1. 10 cases of fundus slides are provided for training in identifying common eye diseases.
2. The slide images are from actual clinical images.
3. The lens-equipped eyeball units reproduce the visual axis close to that of the human eye providing a realistic eyeground view.
4. Soft and supple material of the manikin allows hands-on practice of examination procedures, such as raising the eyelid.
5. The depth of the fundus slides can be set in 3 levels: hyperopic, normal, and myopic views.
6. Red reflection can be simulated.

Training Skills
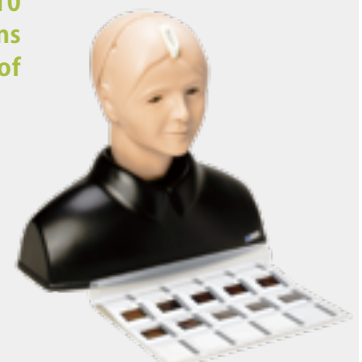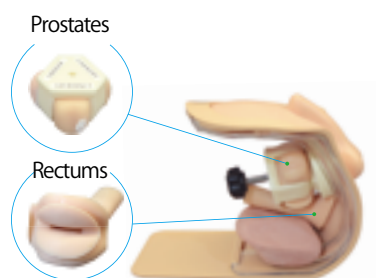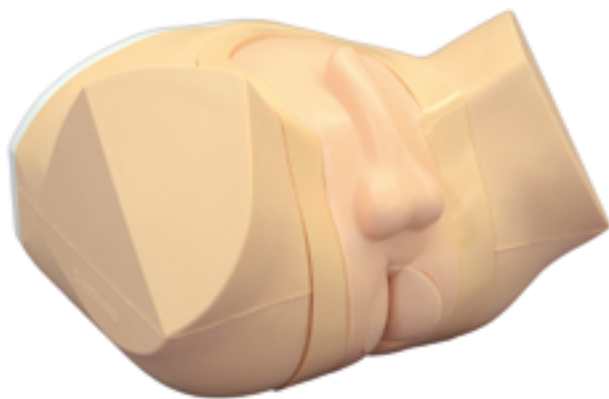
● Fundus examination

Normal eyeground
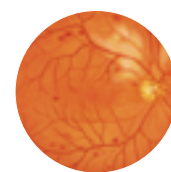
Hypertensive retinopathy

EYE Examination Simulator (2 steps)

Fundus examination with 10 clinical images and variations of 2 pupil sizes and depth of focus.

Different sizes of pupil can be set at 2 sizes.
(0.14 and 0.32 in diameter)

Prostates

Rectums

2-in-1 simulator for prostate and rectal exams

The Prostate and Rectal Simulator includes 9 types of prostates and 4 types of rectums that are easily changeable. The lower torso manikin can be positioned in 3 different ways.

Features

1. Nine types of prostate simulate different scenarios
2. Four rectum units
3. Training with multiple prostates and rectal cases is concurrent and time efficient
4. Lateral, supine and prone positioning
5. 3 revolving units with 9 prostates can easily be interchanged.

Training Skills

- Digital-examination of the prostate and rectum
- Insertion and the use of the anal-scope and the proctoscope

Cases

Nine types of Prostates

#1 normal
#2 enlargement1
#3 enlargement 2
#4 prostatitis
#5 carcinoma 1
#6 carcinoma 2
#7 carcinoma 3
#8 carcinoma 4
#9 carcinoma 5

Four Rectum Units
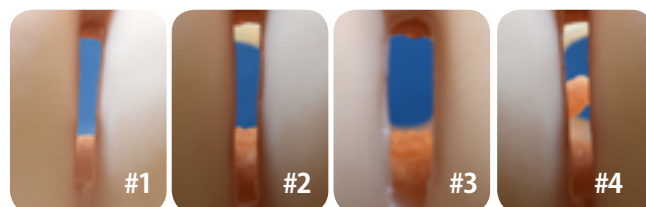
#1 normal
#2 small carcinoma
#3 large carcinoma
#4 polyp combines with small carcinoma

Specifications :

Set Includes:	Manikin Size:
1 lower torso manikin	W34 x D33 x H24 cm
3 prostate units (include 9 types of prostates)	
4 rectum units	
1 Vaseline	
1 body	
1 storage case	

Colonoscope trainer for safe maneuvering

The soft, flexible colon tube provides a life-like response to the use of a colonoscope and facilitates training in skills such as preventing "loops" and safely advancing to the cecum.

Features

1. From simple and uncomplicated cases to difficult and sensitive variations. This training model is designed to allow for a wide range of challenges for students and professionals alike.
2. The colon tube can be made airtight, allowing for air insufflation and suction.
3. The anal sphincter opening can be manipulated with a hand ball pump.

Training Skills

● Colonoscopy

Positioning of the body

Adjustable opening of the anus

Select difficulty level of training

Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 abdomen model	1 plastic bottle	W48 x D22 x H30 cm	(11361-010) 1 colon-rectum tube
1 colon rectum tube	1 stand		(11361-020) 1 anus unit
1 anus unit	1 rubber sheet		(11361-030) 1 colon fixture set
1 air bulb	1 anus plug		(11361-120) 1 set of colon layout guide
1 abdomen skin cover	1 instruction manual		(11361-040) lubricant for colon-rectum tube
1 set colon fixture	1 training guide		(blue packs) 30 pcs x 50 ml each
5 colon layout guides (6 cases total)	1 storage case		(11361-050) endoscope lubricant
30 lubricant for colon-rectum tube (50 ml each)			(pink packs) 30 pcs x 20 ml each
30 endoscope lubricant (20 ml each)			

* A endoscope is not included.
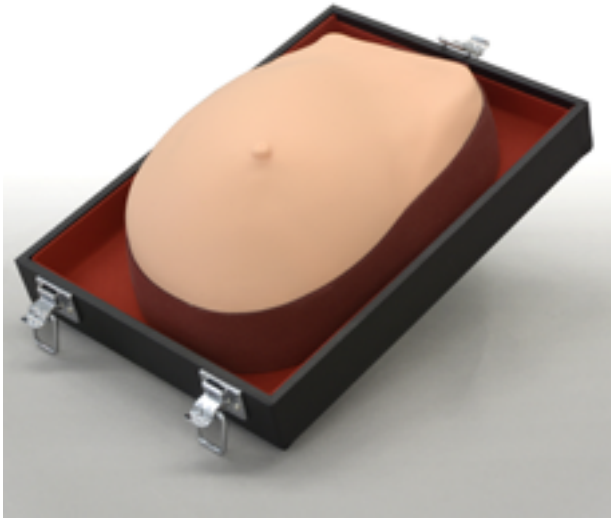
A compact and realistic breast examination trainer

An excellent training and demonstration tool in breast lumps palpation both for breast self-examination and professional examination.
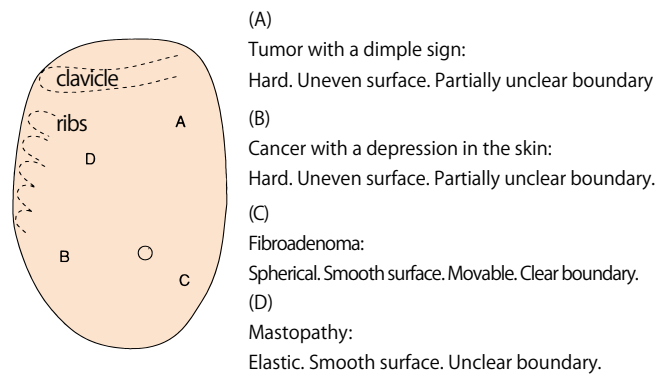
Features

1. Four breast lumps (tumor with dimple, tumor with skin depression, fibroadenoma and mastopathy)
2. Bony landmarks for palpation: clavicle and ribs
3. Soft and life-like texture

Training Skills

● Tactile breast examination
● Breast self-examination

Cases

(A)
Tumor with a dimple sign:
Hard. Uneven surface. Partially unclear boundary

(B)
Cancer with a depression in the skin:
Hard. Uneven surface. Partially unclear boundary.

(C)
Fibroadenoma:
Spherical. Smooth surface. Movable. Clear boundary.

(D)
Mastopathy:
Elastic. Smooth surface. Unclear boundary.

Specifications:

Set Includes:	Manikin Size:
1 breast model (attached to the case)	W20 x D28 x H15 cm
1 talcum powder	
1 storage case	

Breast Self Examination Model - body-worn type -

Breast examination trainer for self examination

Practice in finding and distinguishing 6 different lumps through visual-tactile examination.

Features

1. The model is designed to facilitate the diagnosis of six signs of breast tumors: skin dimples, cysts, cystoma, fibroadenoma, cancerous tumors.
2. An ideal tool for breast self-examination education.
3. The appearance and texture of this life-size model are life-like enough to facilitate clinical training.

Training Skills

- Tactile breast examination
- Breast self-examination

Cases
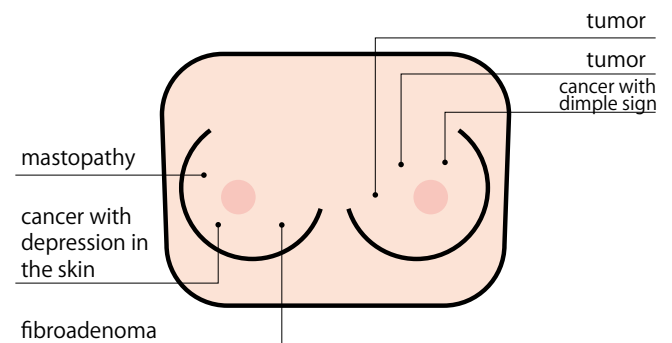
Specifications：

| Set Includes: |
| --- |
| 1 breast model with the strap belts |
| 1 storage case |

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

Training Skills

- Ultrasound-guided CVC
- Landmark guided CVC
- Ultrasound-guided venous access
- Prevention of mechanical complications
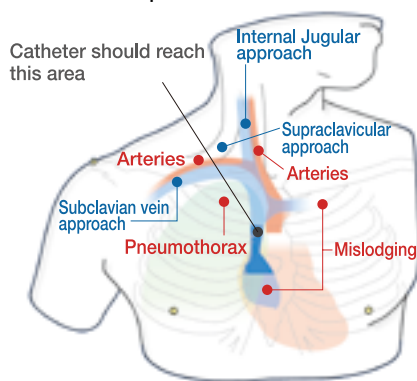
Great practice simulator for CVC catheter insertion with a variety of methods

CVC Insertion Simulator II offers training in both landmark and ultrasound-guided central venous catheterization. The simulator is designed to develop trainees' skills in sequence using the introductory training block and the anatomical block. The simulator can also simulate common complication such as mislodging.
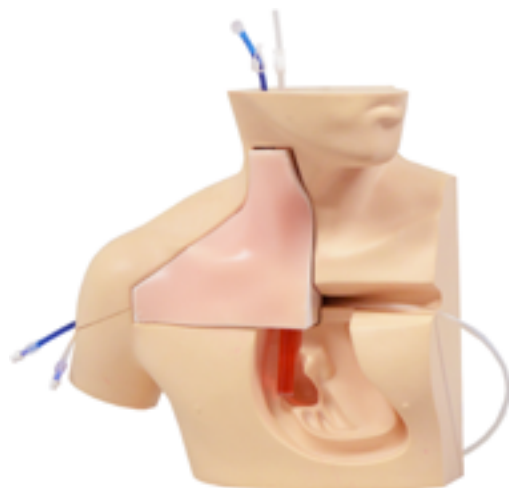
Features

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.

Transparent Anatomical Block

Ultrasound Training Block

Ultrasound Puncture Pad
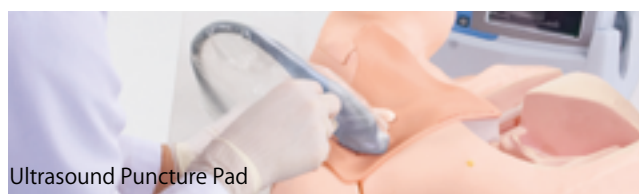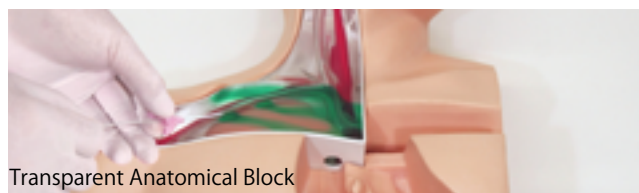
Specifications :

Set Includes:		Manikin Size:	Replacement Parts:
1 male upper torso manikin	1 blue coloring powder	W40 x D20 x H 34 cm	(11347-119) 2 landmark puncture pads
1 landmark puncture pad	1 air bulb		(11347-170) 2 ultrasound puncture pads
1 ultrasound puncture pad	2 plastic jars		(11347-210)
1 transparent anatomical block	1 irrigation bottle		2 introductory ultrasound training blocks
1 introductory ultrasound training block	1 syringe		(11347-240) 2 CVC placement pads
	1 sample syringe		(11347-260) 1 pulsation unit (for M93UB)
1 red coloring powder	1 sample needle		

* A ultrasound machine and CVC instruments are not included.

CVC Insertion Simulator III provides training in a sequence of procedural skills from the needle insertion to catheter placement, including Seldinger technique.

CVC Insertion Simulator III provides training opportunities in array of procedural skills from determining the insertion site placement of the catheter without interruption. Both landmark and ultrasound-guided catheterization are possible in one pad.

Features

1. Repeated insertion:
Improved frictionless tissue of the pad allows Seldinger technique and repeated insertion and removable of the catheter with less needle marks left on the surface of the pad.

2. Both landmark and ultrasound-guided CVC:
Anatomically correct structure facilitates training in both landmark and ultrasound-guided CVC.

3. Mechanical complications, such as arterial puncture and pneumothorax can be simulated for training.

4. New material
Close to human tissue material of the pad provides true-to-life sensation to the catheter.

5. Realistic venous collapse

Probe — Skin
Internal jugular vein
Carotid

Training Skills

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

Palpation

Flash-back confirmation
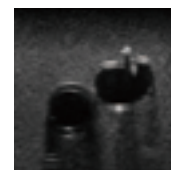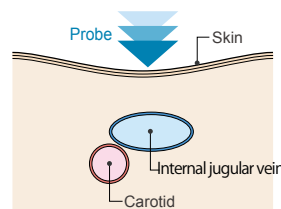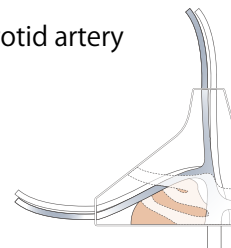

Advancing the guide-wire and threading the dilator

Cannulation

Anatomy

- Internal jugular vein & carotid artery
- Subclavian vein & artery
- Superior vena cava
- Ribs
- Sternum
- Lung

Specifications：

Set Includes:		Replacement and Optional Parts:
1 male upper torso manikin	1 pulsation unit (for landmark technique)	(11347-210) 2 introductory ultrasound training block REAL VESSELS
2 CVC placement pad	1 irrigation bottle (for UG technique)	
1 skin for cannulation training	1 plastic jar	(11347-240) 2 CVC placement pads
1 transparent anatomical block	1 coloring powder (red/blue)	(11347-260) 1 pulsation unit (for M93UB)
2 artery tube (transparent): 2 type	1 sample needle	
2 vein tube (blue): 2 type	1 syringe (2.5ml, 50ml each)	Manikin Size:
2 vein pipe	1 introductory ultrasound training block REAL VESSELS	W40 x D20 x H 34 cm

* A ultrasound machine and CVC instruments are not included.

Comprehensive, hands-on training for PICC insertion

This model provides training in full procedural skills from the needle insertion, manipulation of the PICC to the placement of the distal tip in the SVC. Both basilic and cephalic veins are accessible for different levels of challenges in cannulation. The replaceable puncture pad is ultrasound-compatible.

Anatomically correct bifurcation of the vein provides realistic resistance on its outer walls and simulates complications such as catheter malpositioning.

Puncture site selection

Ultrasound guided puncture

Guide wire insertion


Cannulation

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

Training Skills

- Correct needle insertion, PICC, manipulation and catheter tip placement
- Selection a puncture site under ultrasound guidance
- The Seldinger technique
- Technique for the peel-away sheath
- Advancing of the cannula into the SVC

Movable shoulder
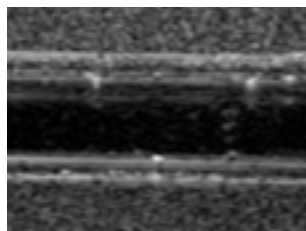
Disposable ultrasound puncture pad

Specifications：

Set Includes:	Manikin Size:
1 male upper torso with the right arm	W40 x D15 x H60 cm
2 PICC puncture pads	Replacement Parts:
10 simulated blood (swab type)	(11348-010)
1 jar	2 PICC puncture pads
1 syringe	
1 instruction manual	
1 storage case	

* A ultrasound machine and PICC instruments are not included.

An essential tool for radial artery puncture training

Radial artery puncture is a common approach for blood collection and artery catheterization. However, it is a challenging skill for trainees. This innovative simulator is designed to provide training in arterial puncture with true-to-life feeling.

Features

1. Arterial pulsation is palpable.
2. Realistic resistance of tissue and artery wall felt with the injection needle.
3. Natural flashback of artificial blood into the needle can be observed.
4. Radial arterial line placement can be simulated.
5. No puncture trace remains on the injection site.
6. One-touch, leak-free connections.

Product Supervision
Dr. Hiroshi Koyama,
Medical Director, General Internal Medicine National Hospital Organization Kyoto Medical Center

Training Skills

- Radial arterial puncture
- Artery blood sampling
- Radial line placement

Radial Arterial Line Placement
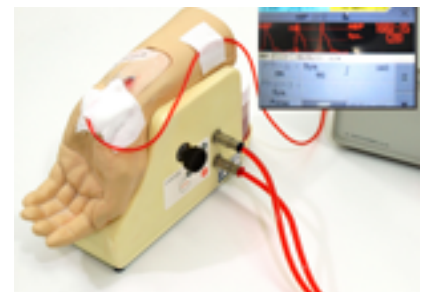
IABP Measurement
(The arterial pressure values are not simulated)
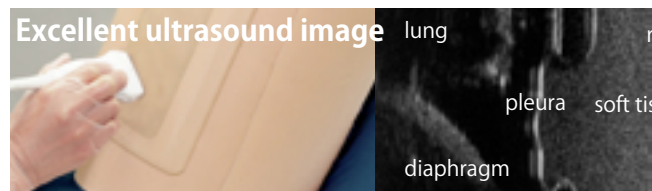
Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 wrist and hand model	1 spoon	W20 x D9 x H16 cm (manikin size)	(11351-010)
1 circulation pump	2 plastic jars	W20 x D16 x H13 cm (pump size)	1 replacement skin set
2 sets of puncture skins (inner and outer skin)	2 connection tubes		(11351-030)
4 artery tubes	1 vinyl sheet		4 replacement silicon tape
1 silicon tape	1 syringe		(11351-040)
1 jar of coloring powder (red)	1 storage case		4 replacement artery tube
	1 instruction manual		

* A needle is not included.

MW4A   **Ultrasound-Guided Thoracentesis Simulator - Strap-on set -**
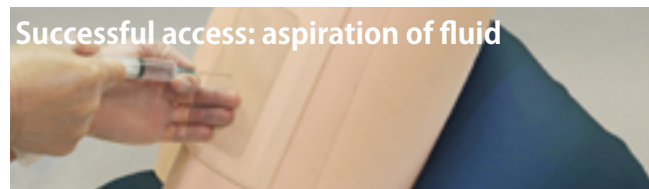
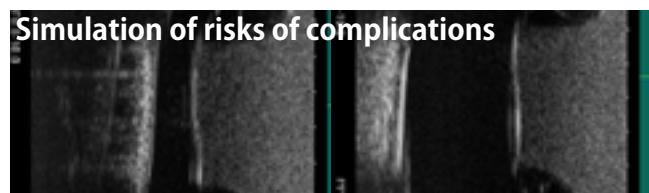bending forward

sitting

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

Thoracentesis simulator both for table top and hybrid training session with patients.
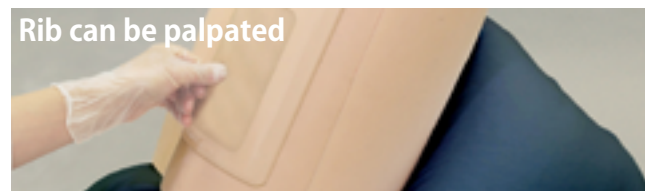
Ultrasound-Guided Thoracentesis Simulator features two types of puncture units: mid-scapular line access and mid-axillary line access. Strap-on (wearable) puncture units facilitates hybrid training sessions with SPs.

Features

1. Excellent ultrasound image
2. Ribs can be palpated.
3. Realistic needle-tip resistance and needle-penetrating feeling
4. Strap-on puncture units to learn patient positioning and face-to-face communication
5. Two sites for access:
   right mid-scapular line and left mid-axillary line
6. Volume of pleural effusion can be controlled to set different levels of challenges.
**7.** Body torso for one-man training. (Only for MW4)

Training Skills

- 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 the fluid

Excellent ultrasound image

lung

pleura   soft tis

diaphragm

Anatomy includes: ribs, pleura, soft tissue and diaphragm

Rib can be palpated

Mid-axillary line unit: 6-9th ribs
Mid-scapular line units: 8-11th ribs

Successful access: aspiration of fluid

Realistic needle-tip resistance and needle-penetrating feeling

Training with SP

Strap-on puncture units to learn patient positioning and face-to-face communication

Simulation of risks of complications

Volume of pleural effusion can be controlled to set different levels to challenges

Confirmation of puncture direction
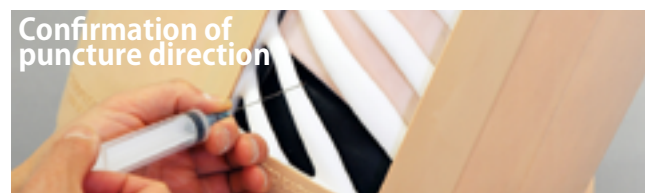
Explanation model to facilitate anatomical understanding

Ultrasound-Guided Pericardiocentesis Simulator

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

Training for safe 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. Puncture pad is durable and replaceable.
2. Landmarks for palpation and ultrasonic landmarks are prepared to practice the subxiphoid approach and the parasternal approach.
3. Realistic needle tip feeling when the needle pierces the "pericardial sac"

Training Skills

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

Landmark palpation

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

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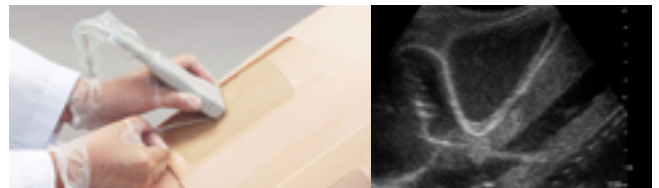
Inserting needle to the pericardial space with ultrasound guidance. Ventricles, ribs, pericardium, liver and main artery can be visualized.

Set includes list for MW4, MW15, MW17 and MW4A

	MW4	MW15	MW17	MW4A
1 adult chest model	○	○	○	
1 mid-axially line unit	○		○	○
1 mid-scapular line unit	○		○	○
1 pericardiocentesis unit		○	○	
1 pillow for positioning	○	○	○	
1 explanation model for thoracentesis	○		○	
1 instruction manual	○	○	○	○
Accessories				
-1 irrigator	○		○	
-1 funnel	○		○	○
-1 syringes (50ml)	○	○	○ x2	○
-1 joint hose		○		
-1 tube with three-way stopcock	○		○	○
-1 plastic jar	○		○	○

* A ultrasound machine and needles are not included.

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

## World's best practice simulator for lumbar puncture and epidural anesthesia

Five types of puncture blocks enhance training with different levels of challenges

Features

1. M43B model closely simulates the lumbar anatomy including the landmarks.
2. Provides life-like sensation of both skin and tissue resistance to the spinal needle.
3. Allows students to measure CSF fluid pressure, collect CSF fluid and practice epidural anesthesia procedures under clinically realistic conditions.
4. Epidural block with excellent needle-tip feeling.
5. Loss-of-pressure technique with water or air can also be simulated.
6. Lumbar region support bases for either individual or group practice
7. 5 types puncture blocks: normal CSF, obesity CSF, senior CSF, senior obesity CSF, epidural for various levels of training

Training Skills

- Palpation of landmarks
- Lumbar puncture
- CSF collection
- CSF pressure measurement
- Epidural anesthesia
- Anatomical understanding

obesity CSF
senior obesity CSF
normal CSF
senior CSF
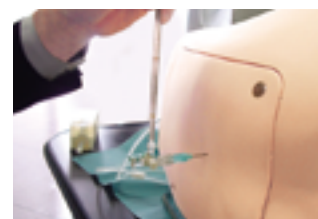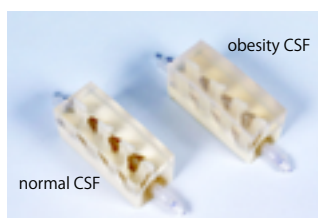
epidural

Specifications：

Set Includes:		Manikin Size:
1 lumbar region model	1 lumbar spine model	W33 x D21 x H30 cm
6 lumbar puncture blocks 2 normal CSF, 1 obesity CSF, 1 senior CSF, 1 senior obesity CSF, 1 epidural	1 irrigation bag	Replacement Parts:
	1 syringe	(11348-090) 1 LP block (normal CSF)
	1 stand for irrigation bag	(11348-110) 1 LP block (obesity CSF)
1 lumbar region skin cover	1 instruction manual	(11348-120) 1 LP block (senior CSF)
		(11348-130) 1 LP block (senior obesity CSF)
3 lumbar region support bases: sitting position, lateral position, base for team teaching	1 storage case	(11348-140) 1 epidural block
		(11348-150) 1 lumbar region skin cover

* A needle is not included.

Ultrasound Compatible Lumbar Puncture / Epidural Simulator

## Lumbar puncture training with ultrasound guidance

Ultrasound compatible puncture block is anatomically correct and offers realistic image of ultrasound. It includes lumbar vertebrae, spinous process, superior articular process, transverse process, epidural space and spinal dura mater.

Features

1. Ultrasonic landmarks of lumbar spine can be visualized.
2. Replacement parts are durable for multiple procedures.
3. This simulator can be positioned in the upright or lateral position.
4. Translucent block makes the needle trace visible.
5. The lumbar region model provides a platform for wide training opportunities, by adding interchangeable training blocks for landmark and fluoroscopic procedures.

Training Skills

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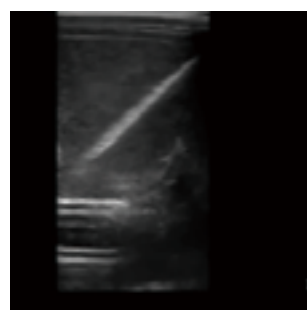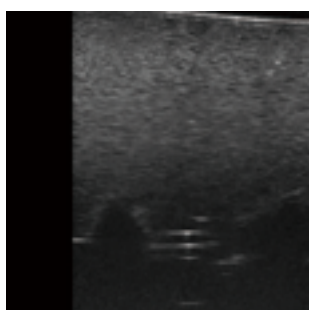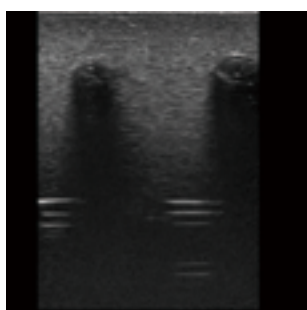
Specifications：

Set Includes:		Manikin Size:	Replacement Parts:
1 lumbar region model	2 lumbar region support bases (upright position / lateral position)	W33 x D21 x H30 cm	(11348-190) 1 ultrasound lumbar puncture/epidural block
1 ultrasound lumbar puncture/epi-dural block	1 irrigation bag		(11348-230) 1 ultrasound lumbar region skin cover for M43E
1 ultrasound lumbar region s kin cover	1 syringe		
	1 stand for irrigation bag		
	1 instruction manual		

* A ultrasound machine and needles are not included.

Epidural Anesthesia Simulator

Simulator for acquiring skills for epidural anesthesia that entail potential risks of complications

Epidural Anesthesia Simulator offers multiple training methods on both thoracic and lumbar areas with its puncture block includes spinal columns from T7 to L5.

Features

1. Anatomically correct spinal column covering from T7 to L5.
2. Landmarks for palpation: IC, angulus inferior scapula and spinous process
3. True-to-life resistance and "pop" felt through the needles. Both left and right lateral positions are possible.
4. Loss of resistance technique is possible.
5. The broad puncture pad allows paramedian access as well as median approach.
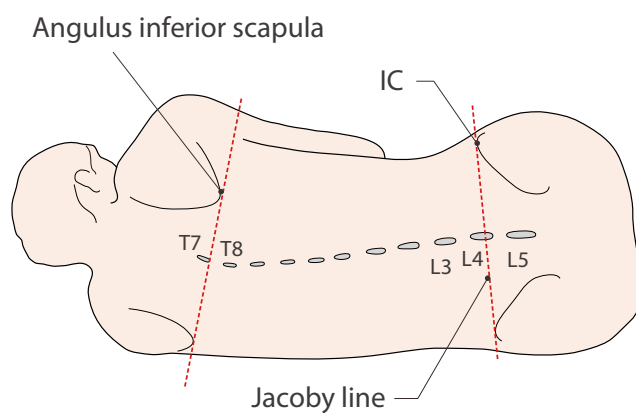
Landmark palpation

Epidural anesthesia

Lumbar puncture
(CSF collection)

Training Skills

- Epidural anesthesia procedures at lumbar and thoracic area
- Lumbar puncture

Angulus inferior scapula

IC

T7 T8

L3 L4 L5

Jacoby line

Specifications :

Set Includes:	Manikin Size:
1 life size unisex torso	W48 x D23 x H29 cm
5 puncture pads	Replacement Parts:
1 supporting stand	(11382-010)
1 50ml syringe	2 replacement puncture pads

* A needle is not included.

Acquire skills for safe pediatric LP

Simulator for acquiring safe and reliable skills for pediatric lumbar puncture

Features

1. Soft, seamless baby manikin facilitates trainings in safe patient positioning and holding.
2. Two types of puncture pads have different spinal cord's depth.
3. Realistic resistance to needle tips and anatomically correct landmarks provides excellent hands-on experience.

Level of posterior superior iliac crests

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

Gregory A. Plotnikoff, M.D.,M.T.S.,F.A.C.P.
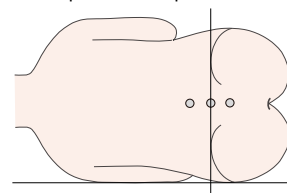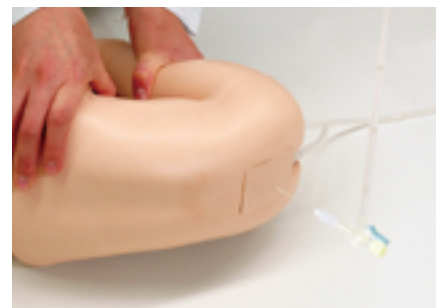Medical Director, Abbott Northwestern Hospital

Training Skills

● Patient positioning
● Palpation of landmarks
● Lumbar puncture and CSF collection
● CSF pressure measurement

Palpation of landmarks

Lumbar puncture and CSF collection

CSF pressure measurement

Specifications :

Set Includes:		Manikin Size:	Replacement Parts:
1 baby manikin (7-10 months)	1 stand for irrigation bag	W43 x D34 x H20 cm	(11348-410)
2 pediatric LP blocks (shallow)	1 syringe (50mL)		2 pediatric LP blocks (shallow)
2 pediatric LP blocks (deep)	1 instruction manual		spinal cord at 12 mm depth
1 irrigation bag			(11348-420)
			2 pediatric LP blocks(deep)
			spinal cord at 17 mm depth

* A needle is not included.

Simulator Intravenous Arm II **(Two arm and circulation pump set)**

Two variation of training pads ensure improving skills in venipuncture.

When working with Simulator Intravenous Arm II, trainees are to locate the vein by palpation to determine the puncture site, and then to recognize the needle tip's piercing the vein wall by sensation. The simulator allows for an array of quality skills training including venipuncture, IV access and injection.

Features

1. 2 kinds of puncture pads for difficulty variation
2. 3 accessible venous lines at cubital fossa:
   basilic, median and cephalic
3. Realistic needle tip resistance of vein walls
4. "Flash-back" can be observed.

Training Skills

● Intravenous injection, blood collection and drip infusion

Specifications：

Set Includes:	Manikin Size:
2 arm models with supporter stand	W54 x D11 x H11 cm each
2 injection pads	
2 injection pads (red)	Replacement Parts:
1 circulation pump	(11267-300-03) 2 replacement injection pad for M50B
1 jar of coloring powder (red)	
1 set of spoon and plastic jar	(11267-300-04) 2 replacement injection pad for M50B (red)
1 instruction manual	

Practice over ten IV skills with one arm

Peripheral Venous Catheter Placement Simulator provides full procedural skills from injection to fixing the IV cannula.

Features

1. All training skills for the peripheral venous route management
2. Two puncture sites: median antebrachial vein and dorsal vein
3. Practice for the extension of hand skin and the application of pressure on vein
4. Durable puncture pad with IV cannula

Confirmation of flash back

Fixing of the puncture site

Application of pressure on vein and decannulation

Training Skills

- Wrapping with tourniquet
- Confirmation of puncture site
- Sterilization of puncture site
- Puncture with IV cannula
- Confirmation of back flow in puncture
- Application of pressure on vein
- Setting of infusion tube
- Confirmation of natural instillation
- Fixing of the puncture site
- Injection of simulated medical solution from injection sub port

Specifications：

Set Includes:	Manikin Size:
1 arm model	W52 x D10 x H10 cm
2 injection pads for dorsal vein of hand	
2 injection pads for median antebrachial vein	Replacement parts:
1 bottle for simulated blood	(11388-200)
1 stand for bottle of simulated blood	2 injection pads for median antebrachial vein
1 infusion set	
1 infusion bag	(11388-300)
1 syringe (50ml)	2 injection pads for dorsal vein of hand
1 plastic beaker	
10 simulated blood sticks (swab type)	(11388-400)
1 carrying bag	10 simulated blood sticks (swab type)
1 instruction manual	

M50D Basic IV Arm

Quality and economy in one

Basic IV Arm is realistic with fine detail, inexpensive and durable, perfect for large number of trainees to practice skills required in their courses.
Lightweight and portable, easy set up so that each trainee can have their own arm to practice.
The vein tube can easily be filled with simulated blood using a soft plastic injection bottle.

Features

1. Flexible skin and palpable veins
   (replicates venous dilatation)
2. Realistic needle tip feeling and blood flashback
3. Injection pad is easily replaceable and durable.
4. No needle marks remain.
5. Hemorrhage can be stopped by compressing with the finger.
6. Adhesive plaster sticks well to the arm and can be easily removed.
7. Arm and supporter stand integrated so that users can set up easily.
8. Compact, lightweight and portable

Training Skills

- Tourniquet application
- Venipuncture (including puncture with IV cannula)

Specifications：

Set Includes:	Manikin Size:
1 arm model with supporter stand	W54 x D11 x D11 cm
1 injection pad	
1 syringe (50ml)	
1 jar of coloring powder (red)	
1 spoon	
1 injection bottle for simulated blood	
1 carrying bag	

M87 Strap-on Venipuncture Simulator

Affordable training unit for venipuncture

Strap-on Venipuncture Simulator is a simple, economical training kit for intravenous injection.
This trainer is to be strapped onto the upper arm of an SP (Standardized Patient) or a life-size training manikin.

Features

1. Realistic tissue and vein wall resistance
2. Vein tube can be filled and refilled easily using a soft plastic bottle that works as a manual pump.
3. Three vein tubes are embedded: 2 normal and 1 thin.

Training Skills

- Blood collection and intravenous injection

Specifications：

Set Includes:
5 puncture pads (vein tube embedded)
5 supporting frames with belt
5 drain tubes
5 injector tubes
5 injection bottles
*Simulated blood powder is not included in the set.
Manikin Size:
W25 x D11 x H3 cm
Replacement Parts:
(11326-010) 1 replacement puncture pad
(11326-020) 5 replacement puncture pads

* A needle is not included.

M95 Simulator Pediatric IV Hand

### Set of pediatric hands for practicing IV

Higher skills are essential in performing safe IV procedures on small infant hands with thin and soft veins that are difficult to find.

Features

1. The fingers and the back of the hand are flexible enough to be gripped or pulled as in real-life procedures.
2. Two puncture sites on the back of the hand are available.
3. Needle fixing procedure can be practiced.

Training Skills

- Pediatric dorsal hand vein injection
- Blood collection
- Intravenous infusion
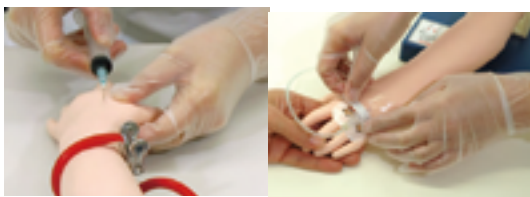
Specifications：

Set Includes:
2 injection arm-hands (one-year-old)
2 injection arm-hands (three-year-old)
2 stands
1 circulation pump
1 jar of coloring powder (red)
1 spoon
1 plastic jar
1 plastic beaker
1 storage case
1 instruction manual
Manikin Size:
W23 x D6 x H5 cm (one-year-old)
W30 x D8 x H6 cm (three-year-old)
Replacement Parts:
(11350-010) 1 replacement injection arm-hand (three-year-old)
(11350-020) 1 replacement injection arm-hand (one-year-old)

* A needle is not included.

M94 Intradermal Injection Training Simulator

Training in intradermal injection of forearm

This simulator provides training for intradermal injection to the inner forearm. Swelling of the skin will form when proper injection procedures are followed.

Features

1. Life-like touch and resistance of the injection site resemble the human arm
2. Injection pads are easily changeable.
3. No needle trace remains.
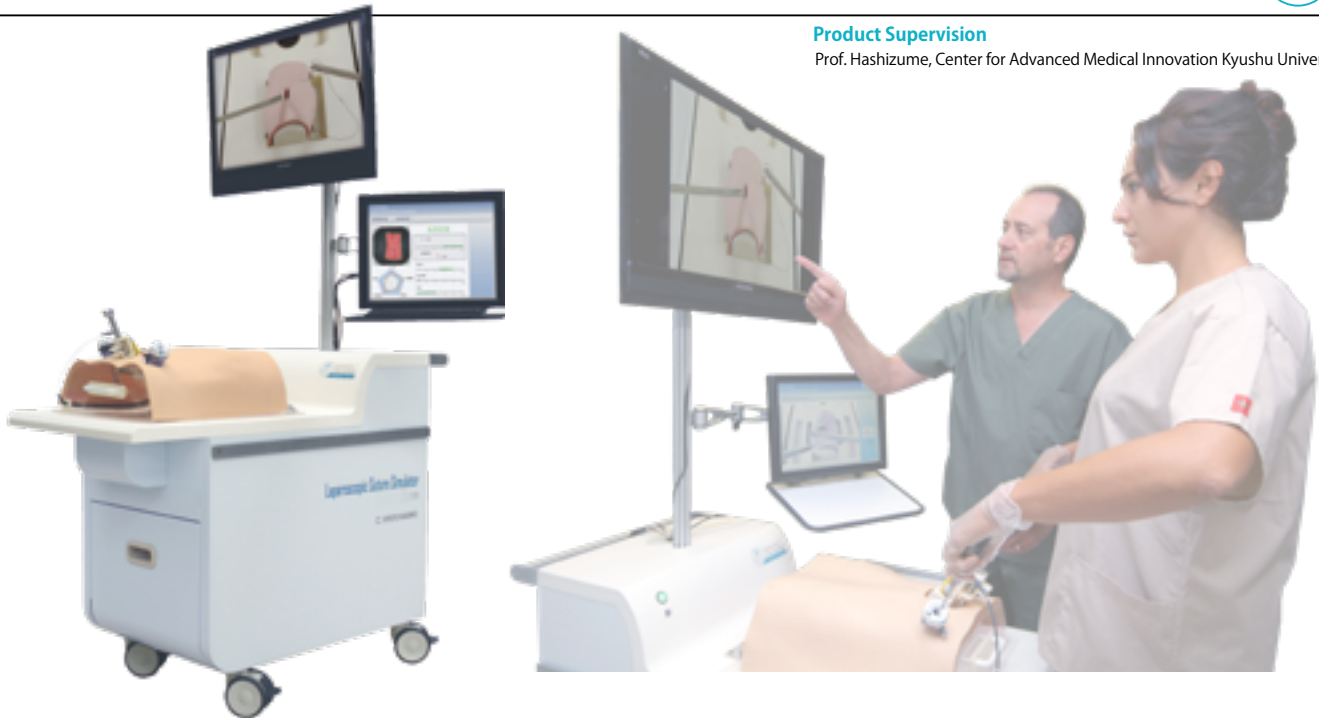
Training Skills

- Intradermal Injection

Specifications：

Set Includes:
5 puncture pads
1 forearm model
1 supporter stand
1 storage case
1 instruction manual
Manikin Size:
W20 x D20 x H8 cm
Replacement Parts:
(11346-010) 1 replacement puncture pad

* A needle is not included.

Laparoscopic Suture Simulator -Assessment System-

Product Supervision
Prof. Hashizume, Center for Advanced Medical Innovation Kyushu University

"Real" and "Objective" assessment develops skills for first class surgeons.

Laparoscopic Suture Simulator evaluates skills in laparoscopic intestinal suture, as well as simple skin suture and forceps training. This simulator also provides real experience by using real clinical devices and also life-like softness and anatomy of intestinal wall and skin.

Features

1. Innovative assessment criteria and quantitative measurement provide objective feedback to trainers.

2. Trainees' personal skills assessment data can be saved for reviewing and analysis.

3. True-to-life simulated tissue that provides convincing hands-on experiences.

4. Real clinical instruments can be used.

5. A variety of training options

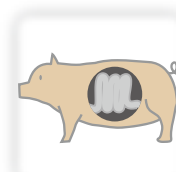6. All in one unit is convenient for training.

Training Skills

- Laparoscopic intestinal suture
- Skin suture under direct vision
- Handling of laparoscopic instruments

Product Supervision
Prof. Hashizume, Center for Advanced Medical Innovation Kyushu University

Integrating Advantages of Different Training Models
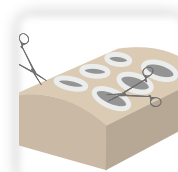
Box Trainers
- Easy to use
- Simple task only

Wet Lab
- Realistic
- Hard to set and clean up

VR Simulators
- Objective skill assessment
- No realistic sense

Laparoscopic Suture Simulator - assessment system-

- ☑ **Easy to use**
- ☑ **Realistic tissue response**
- ☑ **Objective feedback**

Laparoscopic Intestinal Tract Suture

Use forceps to start training in suture skills. Trainees' skills can be assessed in 5 criteria.
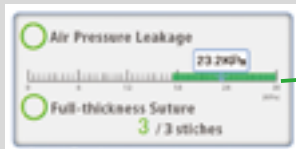
➤ Assessment Criteria

5 assessment criteria give feed-backs are given in two levels:

- **Successfulness:**
  Higher possibility of leak-free suturing

- **Skills level:**
  Lower negative impact on patients

Acceptable Range

1 Is the wound sutured without a leak?

Air leak from the sutured area can be checked by applying air pressure on the intestinal tract sheet.

**2** Is suture completed through muscular layer to mucosal layer?

3 Is ligature appropriate for suture?

4 How much open area is there in mucosal layer?

5 How long does it take for suturing procedure?

➤ Life-like Intestinal Tract

Intestinal tract has four layers with respective characteristics. When holding with forceps and suturing, these four layers react like tissue.

Serosa layer   Submucosal layer

Muscular layer   Mucosal layer
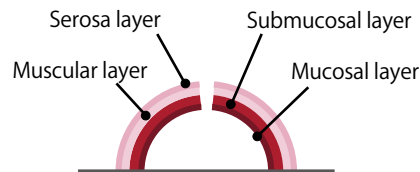
Evaluation on Skin Suture under Direct Vision

Simple interrupted skin suturing can be assessed quantitatively by validated criteria. Objective evaluation score encourages trainees to hone their skills.

Laparoscopic Forceps Training

Forceps Training mode enables dry box training for handling of laparoscopic instruments.

* Laparoscopic instruments and training pad or games are not supplied with the set.

Assessment Criteria

1. Force and tension	2. Image analysis
● Time	● Spacing of stitches
● Force on tissue	● Width of stitches
● Suture tension	● Wound dehiscence

Specifications：

Set Includes:			Manikin Size:
1 monitor	1 torso body	30 pieces of suturing sheet (intestinal tract)	W50 x D110 x H160 cm
1 touch-monitor	1 unit base		93 kg
1 video camera for assessment (intestinal tract suture)	1 printer	30 pieces suturing sheet (skin)	Power:
	1 key board		AC100-240V, 50/60 Hz
1 video camera for assessment (skin suture)	1 set of trocar		Power Consumption:
	1 container		180 VA
1 video camera for procedure recording	1 instruction manual		

* Forceps are not included.

Suture Practice Trainers -Full set-

### Various types of skins to improve the basic of suturing skills

Features

1. The artificial skin can be cut easily at any site to prepare a novel wound.
2. The soft skins are made of durable materials.
3. Simple and durable supporters keep the soft skins arched or maintain tension in the tubular models.
4. All instruments for the practice session are included in the package.

Training Skills

● 4 skills for suture: abdominal skin suture, blood vessel suture, intestinal suture, limbs skin suture

Abdomen
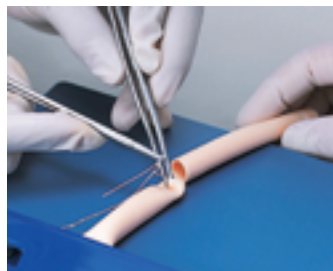
Blood vessel

Intestine

Limbs

Specifications：

Set Includes:		Replacement Parts:
1 set of simulated skins, ducts and supporters	1 set of instruments	(11219-030) 1 abdominal skin
- abdomen set: 2 abdominal skins, 1 supporter	- needle-holders	(11219-050) 5 blood vessels
- blood vessels: 5 narrow tubes	- suture needles	(11219-070) 5 intestinal tracts
- intestine set: 5 wide tubes, 1 supporter	- scissors	(11219-010) 5 limbs skins
- limbs set: 2 narrow skins, 1 supporter	- suture threads	
	- tweezers	
	1 storage case	

M57B Suture Evaluation Simulator

Score your suturing skills to improve faster and better

Simple interrupted skin suturing can be evaluated quantitatively by validated evaluation items. Objective evaluation score and record of learning curve would encourage trainees to improve their skills effectively.

Features

1. There are three modes for different training purposes.
   - Evaluation: objective evaluation for self-learning
   - Learning: reference of examples and recorded data
   - Examination: skills assessment by the instructor
2. Evaluation analyzed on 6 items leads trainees to "desirable" suture skills.

Training Skills

- Suture: Simple interrupted suture
- Ligature: Instrument tying

Evaluation Items

The sensors measure force and tension to the skin.	USB camera for Image Evaluation
● Time ● Force on the tissue ● Suture tension	● Spacing of stitches ● Equidistance ● Wound dehiscence

Specifications :

Set Includes:	Replacement Parts:
1 unit base	(11230-010)
1 skin suturing unit	40 simulated skins
40 simulated skins	
1 USB unit	
1 PC with software	
1 movie demonstration (CD)	
1 storage case	
1 instruction manual	

* Instruments are not included.

M57C2 Laparoscopic Suture Evaluation Simulator
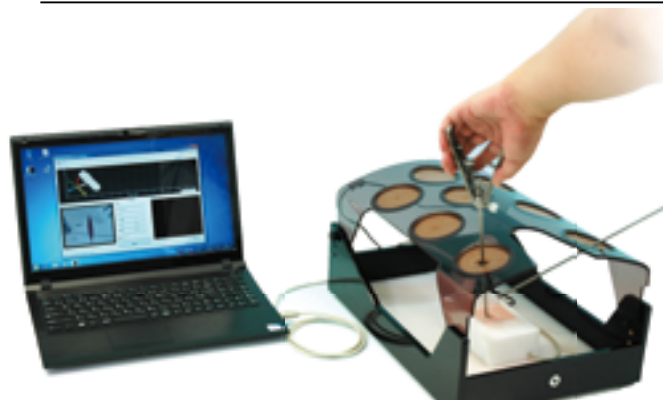
Quantitative assessment of suturing skills using laparoscopic forceps.

*Training Box is not include in the standard set

Features

1. There are three modes for different training purposes.
   - Evaluation: objective evaluation for self-learning
   - Learning: reference of examples and recorded data
   - Examination: skills assessment by the instructor
2. Evaluation analyzed on 6 items leads trainees to "desirable" suture skills.

Training Skills

- Suture: Simple interrupted suture
- Ligature: Instrument tying

Evaluation Items

The sensors measure force and tension to the skin.	USB camera for Image Evaluation
● Time ● Force on the tissue ● Suture tension	● Spacing of stitches ● Equidistance ● Wound dehiscence

Specifications :

Set Includes:
1 M57C suturing unit
40 simulated skins
1 USB unit
1 PC with software
1 demonstration movie (CD)
1 instruction manual

Replacement Parts:
(11230-010) 40 simulated skins

* Instruments are not included.

Difficult Airway Management Simulator -Assessment System-

You may be able to intubate a patient, but are you as good as you think you are?

This simulator is the world exclusive system that offers objective feedback on intubation skills carried out by "hands-on" with the true-to-life airway manikin real instruments. Real time visualization of performance on each evaluation point helps to assess trainees' skill as well as to identify the area where trainees need further improvement.

Features

1. Objective feed-back is given at two levels:
   - Intubation result: higher possibility of saving patient's lives
   - Skills assessment: lower negative impact on patients

2. Assessment criteria feedback is quantitatively monitored and displayed.

3. Each session can be saved and stored for review and debriefing.

4. A variety of difficult airway can be set by touch panel control.

5. All-in-one unit is convenient for training.

Training Skills

- Tracheal intubation
- Intubation and ventilation on difficult airways

Product Collaboration

Atsuo Takanishi, Laboratory of Faculty of Science and Engineering, Waseda University

Feature 01   True-to-Life Hands-on Experience

Reality of procedure is a critical to ensure reliable assessment and skills development.

Use of real clinical devices
Articulation of jaws
Flexible neck
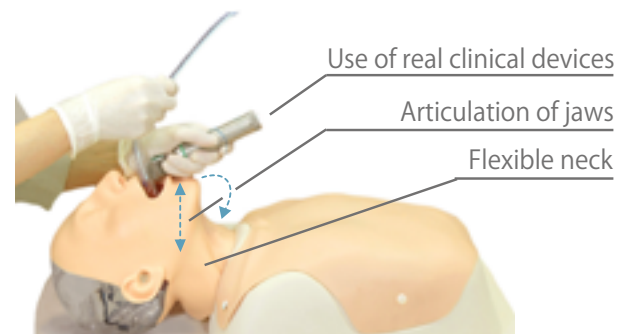
### Feature 02   Normal and 3 Difficulty Levels

Different levels of difficulty for the intubation procedure can be set with the touch panel. There is one "normal" setting and three additional levels with increasing difficulty.

Normal	Intubation Difficulty		
Normal	Lock Jaw	Rigid Neck	Micrognathia
★★	★★	★★	★★★★

Feature 03
Visual Feedback of Objective Assessment

Real-time dynamic feedback on performance is visually displayed.
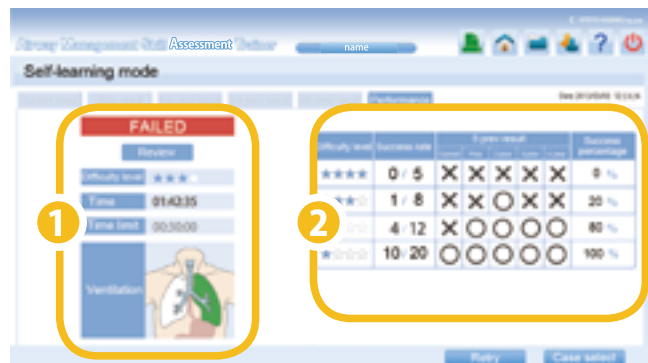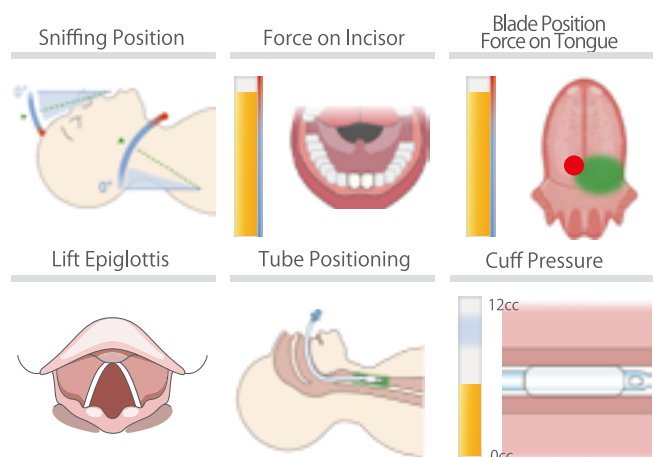

1 Intubation Result Display

Successful intubation is defined as dual-lung ventilation within the time limit.

2 Multiple Skill Assessment

Objective assessment of components of intubation skills based on skill level of professionals.

Sniffing Position	Force on Incisor	Blade Position Force on Tongue
Lift Epiglottis	Tube Positioning	Cuff Pressure

Recommended Devices:

● (Macintosh laryngoscope) blade size 3
● (Endotracheal tube) internal diameter 7.5mm
● (Video laryngoscope) AWS-S200

Feature04
Record of Personal Training History Supports Skills Development

The performance assessment can be saved. This helps users review their skills and measures their improvement.

5 most recent sessions are visually summarized to analyze each trainee's achievement

Training skills are classified by difficulty level. Percentage of success is calculated from each trainee's 5 most recent sessions.

Record of learning history

A list of all records for each trainee's performance data is provided.

Movie Recording

An overview movie and a movie from the video laryngoscope can be displayed and recorded along with the assessment data.

Specifications：

Set Includes:	Manikin Size:	Optional Parts:
1 unit base including 1 video camera, 1 monitor, 1 manikin	W50 x D110 x H160 cm 82 kg	(11392-040) 1 chest skin
		(11392-050) 5 pairs of lungs
1 printer	Power:	(11392-060) 5 stomachs
1 stereo mini plug	AC100-240V, 50/60 Hz	(11392-090) 1 face mask
1 keyboard	Power consumption:	(11390-010) sensor-installed tongue
1 lubricant for manikin	120 VA	(11390-020) sensor (blade force and position)
1 instruction manual		

* Instruments are not included.

Difficult Airway Management Simulator -Training Model-

Variation of DAM Setting

Neck Flexibility
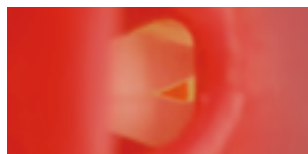(Life-like jaw movement)

Mouth Opening
- Normal
- Intermediate
- Difficult

Tongue
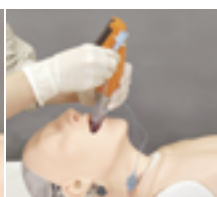- Normal
- Swollen

Laryngospasm
- Normal
- Laryngospasm

Variation of DAM Training

Bag-Valve-Mask
Ventilation

Confirmation of
Endotracheal Tube
Placement

A Variety of
Possible Airway Skills

From beginners to experts with a range of difficulty levels

Difficult Airway Management Simulator provides training for users from all levels of experience with availability of 24 different cases. The robust structure and stable base make the model compatible for various training scenarios such as emergency, pre-hospital or clinical settings. A variety of real clinical devices can be used for training, such as a laryngoscope, bag valve mask, or a video laryngoscope.

Features

1. 24 variations of patient scenario (including 1 normal case): 3 stages of mouth opening, 2 stages of neck flexibility, 2 tongue sizes and 2 positions of the vocal cords
2. Upper incisors are designed to break off when excessive force is applied.

Training Skills

- Airway opening techniques (head tilt, jaw thrust)
- Bag-Valve-Mask ventilation
- Pre-intubation airway assessment
- Recreating the sniffing position
- Pressurization of external larynx to improve the laryngeal view
- Intraoral/Intranasal Intubation
- Use of oropharyngeal airway (OPA)
- Use of nasopharyngeal airway (NPA)
- Use of laryngeal airway mask
- Use of video laryngoscope
- Confirmation of successful ventilation by:
   -observation of thoracic and abdominal movement (lung expanding, stomach inflating) or auscultation of the chest
- Simulates incorrect procedures including intubation in the esophagus and unilateral intubation
- Practice securing tubes after intubation

Recommended Devices:

- (Macintosh laryngoscope) blade size 3,4
- (Endotracheal tube) internal diameter 7.0mm, 7.5mm
- (Laryngeal mask) Air-Q: size 3.5
   LMA Supreme: size 4
   I-gel: size 4

Specifications：

Set Includes:	Manikin Size:	Replacement Parts:
1 manikin	W70 x D39 x H25 cm	(11392-010) 10 upper incisors
3 upper incisors		(11392-090) 1 face mask
1 lubricant	Optional Parts:	(11392-040) 1 chest cover
1 syringe	(11384-100) bronchofiberscopy training unit	(11392-080) 2 replacement tongues II
1 carrying bag		(11392-050) 5 pair of lungs
1 instruction manual		(11392-060) 5 stomachs

* Instruments are not included.

MW14 — Difficult Airway Management Simulator -Demonstration Model-

Great addition as a demonstration tool for airway management

Compact table-top design, anatomical accuracy and a variety of DAM settings. Ideal for demonstration of skills and devices.

Features

1. Anatomically correct airway
2. The incisors are removable when excessive force is applied.
3. Successful tube tip placement can be confirmed by indicators.

Training Skills

- Airway opening techniques (head tilt, jaw thrust)
- Bag-Valve-Mask ventilation
- Pre-intubation airway assessment
- "Sniffing position"
- Pressurization of external larynx to improve the laryngeal view
- Intraoral/Intranasal Intubation
- Use of oropharyngeal airway (OPA)
- Use of nasopharyngeal airway (NPA)
- Use of laryngeal mask airway
- Use of video laryngeal scope
- Confirmation of successful ventilation by indicators.
- Feedback of incorrect procedures including esophagus intubation and unilateral intubation
- Securing the tube in place with tape or Thomas™ endotracheal tube holder

Recommended Devices:

- (Macintosh laryngoscope) blade size 3,4
- (Endotracheal tube) internal diameter 7.0mm, 7.5mm
- (Laryngeal mask) Air-Q: size 3.5
        LMA Supreme: size 4
        I-gel: size 4

Specifications：

Set Includes:	Manikin Size:
1 manikin	W45 x D20 x H25 cm
3 upper incisors	
1 lubricant	Replacement Parts:
1 syringe	(11393-020) 1 face mask
1 carrying bag	(11392-080) 2 replacement tongues ll
1 instruction manual	(11392-010) 10 upper incisors

MW19 — Difficult Airway Management Simulator for Bronchofiberscopy

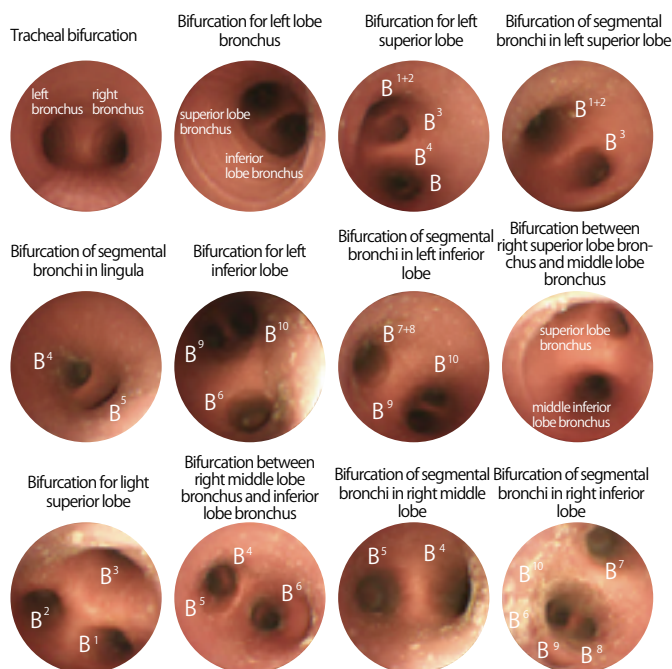### Realistic trainings in insertion and management of a fiberscope

Anatomically correct trachea and bronchi provides realistic view through a scope, allowing recognition of bifurcations.

Features

1. Anatomically correct trachea and bronchi that include trachea bifurcation for segmental bronchi.

Training Skills

- Insertion and management of a fiberscope
- Recognition of bifurcations by a fiberscope
- Airway opening techniques (head tilt, jaw thrust)
- "Sniffing position"

Tracheal bifurcation

Bifurcation for left lobe bronchus

Bifurcation for left superior lobe

Bifurcation of segmental bronchi in left superior lobe

Bifurcation of segmental bronchi in lingula

Bifurcation for left inferior lobe

Bifurcation of segmental bronchi in left inferior lobe

Bifurcation between right superior lobe bronchus and middle lobe bronchus

Bifurcation for light superior lobe

Bifurcation between right middle lobe bronchus and inferior lobe bronchus

Bifurcation of segmental bronchi in right middle lobe

Bifurcation of segmental bronchi in right inferior lobe

Specifications：

Set Includes:	Manikin Size:
1 manikin	W45 x D20 x H25 cm
3 upper incisors	
1 lubricant	Replacement Parts:
1 syringe	(11393-020) 1 face mask
1 carrying bag	(11392-080) 2 replacement tongues ll
1 instruction manual	(11392-010) 10 upper incisors

Ultrasound Neonatal Head Phantom (Normal Type)

Ultrasound Neonatal Head Phantom (Abnormal Type)

NEW

NEW

World's First Ultrasound Neonatal Head Phantom

Head ultrasound is one of most difficult scanning skills, and trainees have few opportunities for training. This head model features an accurate depiction of a newborn's cerebral anatomy, and facilitates a realistic user experience with its life-like soft touch.

World's First Ultrasound Neonatal Head Phantom with Hydrocephalus

This head phantom is designed to demonstrate abnormal anatomy, such as Hydrocephalus, in which the shape of the skull is altered due to intracranial pressure.

Training Skills

● Scanning of brain anatomy in Sagittal (Angled Parasagittal), Coronal and Transverse planes via any fontanel.

Training Skills

● Scanning of brain anatomy in Sagittal (Angled Parasagittal), Coronal and Transverse planes via any fontanel.

Anatomy

● Skull
● Anterior fontanel, Posterior fontanel
● Cerebrum
● Cerebellum
● Brain-stem
● Lateral ventricle
● Ventricle
● Third cerebroventricle
● Fourth ventricle
● Septum lucidum
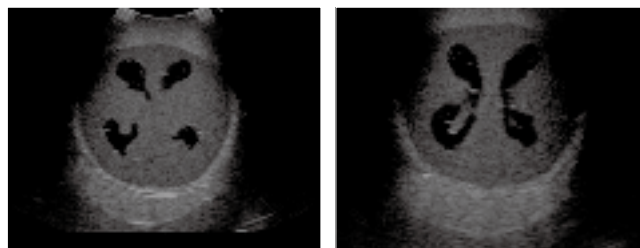
Anatomy

● Skull
● Anterior fontanel, Posterior fontanel
● Hypertrophied lateral ventricle

Specifications：

Set Includes:	Manikin Size:
1 ultrasound phantom	W5.1 x D5.1 x H6.7 inch
1 storage case	
1 instruction manual	

Specifications：

Set Includes:	Manikin Size:
1 ultrasound phantom	W5.1 x D5.5 x H7.8 inch
1 storage case	
1 instruction manual	

ABDFAN

Product Supervision

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

ECHOZY

Product Supervision

Dr. Hitoshi Asai, Director
Osaka Kyoiku University, Health Administration Center
Dr. Shigeru Nakamura
Nagayoshi General Hospital, Clinical Examination Department

Abdominal ultrasound phantom with pathologies

Abdominal ultrasound phantom without pathologies

Unique high-fidelity ultrasound phantoms that facilitate effective training in abdominal ultrasound scanning with your own clinical devices.

Pathologies (ABDFAN only)

- Hepatic lesions (cystic and solid)
- Gallbladder and bile duct stones
- Pancreatic tumors
  (one invading the portal vein)
- Splenic lesions
- Both kidney lesions
- Left adrenal tumor
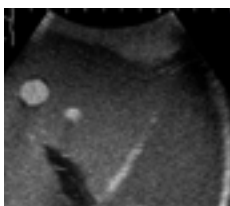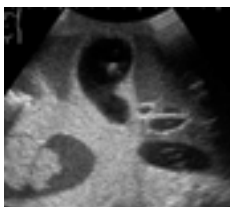
Features

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

Training Skills

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

Anatomy

- Liver
  (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)

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

Simulated cysts ● 10 mm
Simulated tumors ● 10 mm
Hypoechoic target ● 10 mm
Simulated tumors with double edge ◉ 20 mm
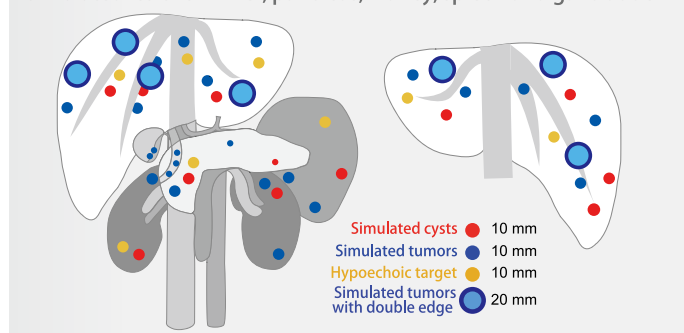
Specifications :

US-1B (41900-030) "ABDFAN"	US-1B (41900-100) "ABDFAN" full set	US-1 (41900-010) "ECHOZY"	US-1 (41900-000) "ECHOZY" full set
Set Variations:			
1 ultrasound phantom "ABDFAN"	1 ultrasound phantom "ABDFAN"	1 ultrasound phantom "ECHOZY"	1 ultrasound phantom "ECHOZY"
1 set positioning pillow	1 anatomical model "ECHO-ZOU"	1 set positioning pillow	1 anatomical model "ECHO-ZOU"
1 tutorial manual (DVD)	1 set positioning pillow	1 storage case	1 set positioning pillow
1 storage case	1 tutorial manual (DVD)		1 storage case
	1 storage case		

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.
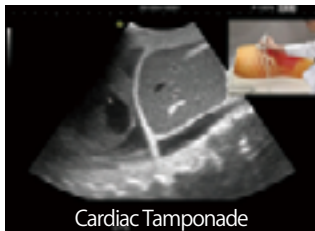
Features

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.

Training Skills

- Internal hemorrhage at perihepatic, perisplenic, pelvis and pericardium area
- Sonography for acute patients

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

FAST

Cardiac Tamponade	Right Upper Abdominal Bleeding
Perisplenic Hemorrhage	Hemorrhage at Rectovesical Area
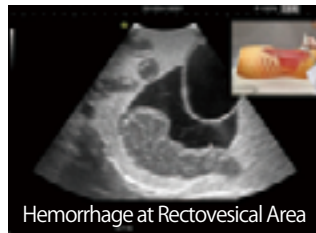
ACUTE ABDOMEN
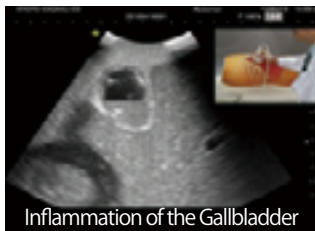
Inflammation of the Gallbladder	Aneurysm
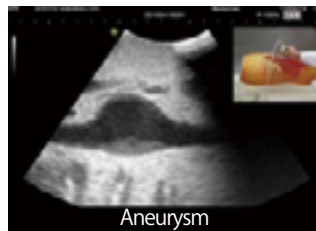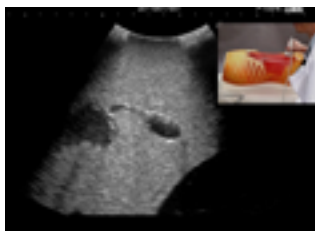
pleural hemorrhage
pericardial hemorrhage
perisplenic hemorrhage
diverticulitis
inflammation of the gallbladder
perihepatic hemorrhage
aneurysm
appendicitis
hemorrhage at rectovesical area

- pericardial hemorrhage
- pleural hemorrhage
- intra-abdominal hemorrhage
- tumor

*The small intestine is also embedded.
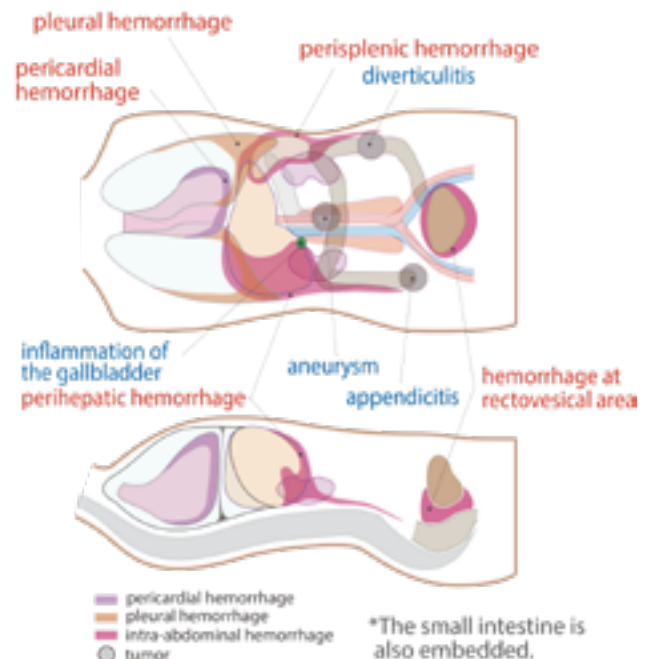
Specifications :

Set Includes:	Phantom Size:
1 ultrasound phantom with carrying base	W62 x D30 x H24 cm
1 tutorial manual (DVD)	

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 young patients.

Features

1. The phantom od a 2-year-old, thoracoabdominal organs, a bone structure, free-fluid to learn FAST procedures and pathologies that are commonly seen in pediatrics.
2. With this phantom, trainees can acquire skills in the basics of pediatric abdominal ultrasound as well as FAST/Acute sonography.

Training Skills

● FAST procedures:
  Internal hemorrhage at perihepatic, perisplenic, pelvis, and pericardium area
● FAST procedures:
  Internal hemorrhage at perihepatic, perisplenic, pelvis, and pericardium area

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

Pleural Hemorrhage

Hydronephrosis

Hemorrhage at Rectovesical Area
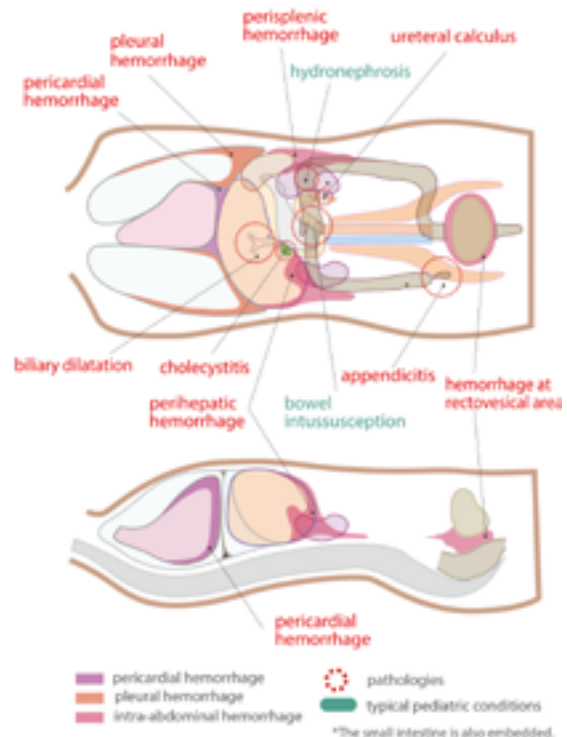
Specifications :

Set Includes:	Phantom Size:
1 ultrasound phantom	W41 x D15 x H15 cm
1 storage case	
1 tutorial manual	

Abdominal Intraoperative & Laparoscopic Ultrasound Phantom "IOUSFAN"

Effective training tool for abdominal intraoperative ultrasound examination

Innovative phantom simulating abdominal open intraoperative and laparoscopic ultrasound examination.

Features

1. Soft phantom materials allow realistic probe manipulation.
2. Various simulated lesions including biliary stones and cysts, solid tumors (hypoechoic, hyperechoic and target-appearance) in the liver, pancreas, spleen and kidneys.
3. Detachable stomach and duodenum allows various scanning methods of the bile duct and pancreas.

Training Skills

- Abdominal intraoperative ultrasound examination
- Laparoscopic ultrasound examination

Pancreatic head

Intraoperative ultrasound

Anatomy

- Liver
  (segmental anatomy, portal and hepatic venous systems, ligamentum teres and ligament 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, etc.)

Bileduct stones

Laparoscopic ultrasound

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

Gallstones

Specifications：

Set Includes:	Manikin Size:
1 upper abdomen ultrasound phantom	W55 x D25 x H13 cm, 3kg
1 stomach ultrasound phantom	
1 phantom container	
1 tutorial manual (DVD)	

* A ultrasound machine is not included.

Fetus Ultrasound Examination Phantom "SPACE FAN-ST"

Highly popular phantom to learn second trimester screening

SPACEFAN-ST provides high quality training for second trimester screening in pregnancy. A 23-week fetus is included with detailed anatomies which are essential for the assessment at the period.

Features

1. SPACEFAN-ST provides high quality training for routine second trimester screening.
2. The oval shape phantom abdomen can be set in four different positions.
3. The fetus includes full skeletal structure and key organs.
4. Come with a didactic DVD and a fetus demonstration model for comprehensive trainings.

Training 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.)

Anatomy

- Uterus:
    amniotic fluid, placenta, umbilical cord, and a 23-weeks fetus (26 cm)
- Fetus:
    skeletal structure, brain with septum lucidum, lateral ventricles and cerebellum, heart with four chambers, lungs, spleen, kidneys, aorta, UV, UA and the external genital
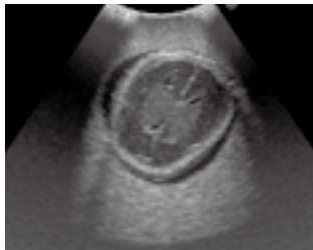
Brain with septum lucidum, lateral ventricles and cerebellum

Evaluation of amniotic fluid volume

UV

Heart with four chambers

Fetus Demonstration Model

Included life-size fetus model facilitates demonstration and three dimensional understanding.
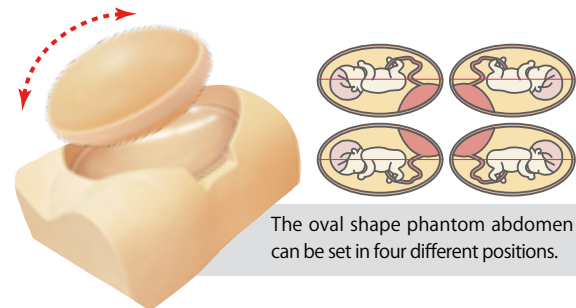
The oval shape phantom abdomen can be set in four different positions.

Specifications：

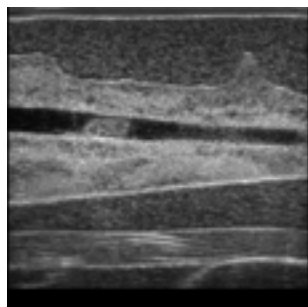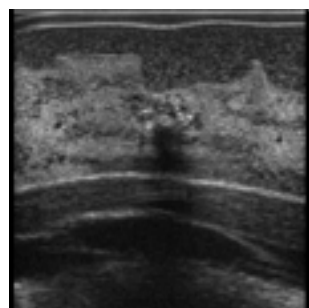| Set Includes:			Manikin Size:
1 mother body torso	1 fetus demonstration model	1 tutorial manual (DVD)	W40 x D29 x H22 cm
1 ultrasound pregnant uterus phantom	1 carrying case		

* A ultrasound machine is not included.

Breast Ultrasound Examination Phantom "BREAST FAN"

Improve skills in breast screening with ultrasound.

BREASTFAN is a unique phantom for training in basic breast ultrasound examination.
Simulated targets with different echogenicities are embedded in the phantom mammary gland.

Features

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

Training Skills

- Skills to scan full area of breast systematically
- Visualization of key anatomical landmarks
- Tracking galactophore
- Visualization and differentiation of typical pathologies
- Localization and measurement of cysts and tumor

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 Organization Nagoya Medical Center

Anatomy

- Subcutaneous adipose
- Mammary gland
- Galactophore
- Cooper's ligament
- Retromammary adipose
- Costae
- Clavicle
- Pectoralis major
- Lung
- Lymph nodes at axilla
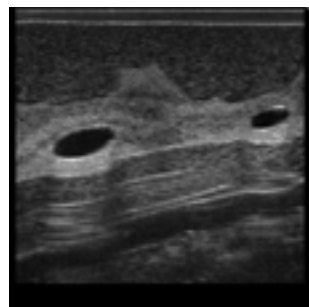
Cyst

Mammary ductal ectasia

Malignant tumor

Benign tumor
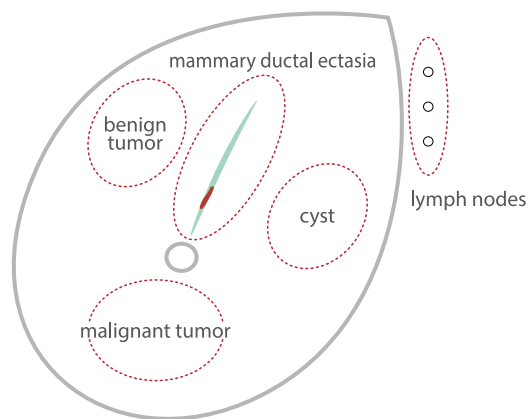
Specifications :

Set Includes:	Phantom Size:
1 breast phantom	W33 x D48 x H12 cm
1 storage case	
1 tutorial manual	

* A ultrasound machine is not included.

Ultrasound-Guided Breast Biopsy Phantom

Provides step by training in ultrasound guided breast biopsy

Combination of the two types of breast phantoms provides 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. Tissue of the breast phantom represents softness and resistance of the mammary gland.
3. Excellent image quality
4. Targets are colored to confirm successful sampling.
5. Targets are embedded in three levels to allow training in needle access with different angles and depth.
6. Transparent and opaque type phantoms provides various level of training.
7. An inexpensive and disposable phantom that provides many numbers of trials.

Training Skills

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

Basic (Transparent)

Hand-eye coordination
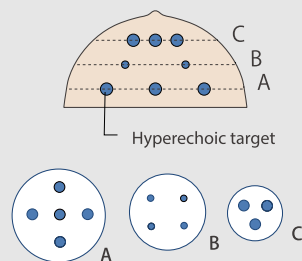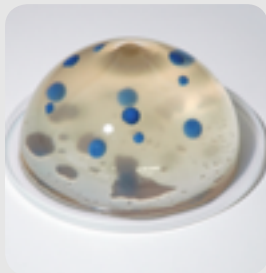
Size of targets: 6 mm dia. and 10mm dia.
Type of targets: Hyperechoic (blue)
Number of targets: 12 pieces

Advanced (Opaque)

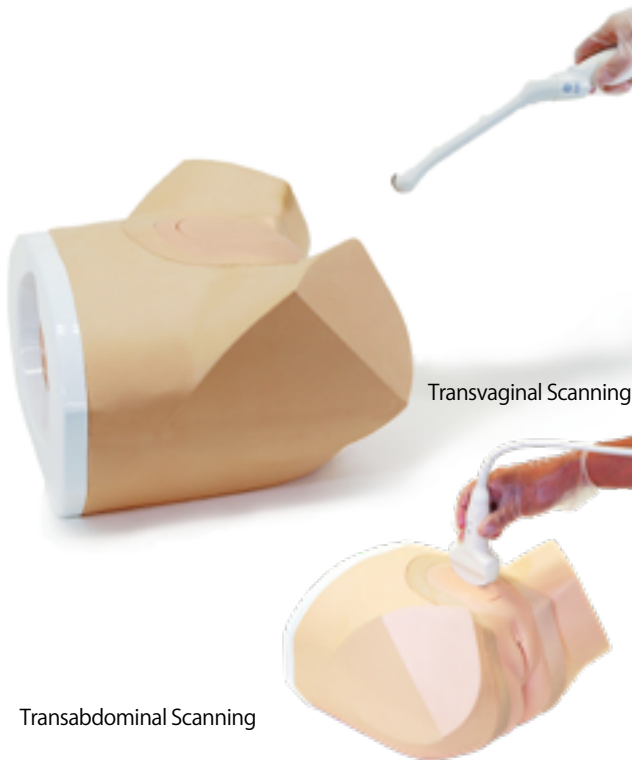Acquisition of skills in safe and reliable needle biopsy
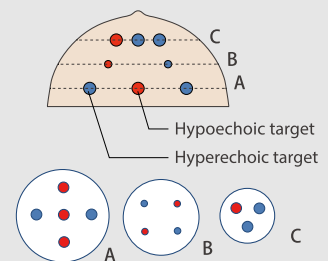
Size of targets: 6 mm dia. and 10mm dia.
Type of targets: Hyperechoic (blue), Hypoechoic (red)
Number of targets: 12 pieces

Specifications :

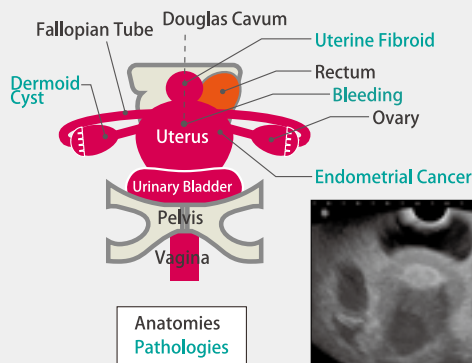| Set Variations:	Phantom Size:
Duo set: (11387-000) transparent + opaque type	Φ 16 x 8 cm
Transparent set: (11387-100) 1 pair of transparent type	
Opaque set: (11387-200) 1 pair of opaque type	

* A ultrasound machine and needles are not included.

Female Pelvic Ultrasound Phantom

Transvaginal Scanning

Transabdominal Scanning

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

Two interchangeable inserts to cover basic gyn ultrasound

Female Pelvic Ultrasound Phantom facilitates teaching and learning how to practice both transvaginal and transabdominal ultrasound procedures using one's own device. Typical female pelvic pathological are prepared for various training.

Features

1. Both transvaginal and transabdominal scanning are possible.
2. Two types of interchangeable phantom inserts with different pathologies
3. Realistic view of female external genital
4. Excellent ultrasound image quality

Training Skills

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

Anatomy

- Pathological Phantom:
  endometrial cancer, uterine fibroid, dermoid cyst of ovary, bleeding at Douglas pouch

Fallopian Tube | Douglas Cavum
Dermoid Cyst
Uterine Fibroid
Rectum
Bleeding
Ovary
Uterus
Endometrial Cancer
Urinary Bladder
Pelvis
Vagina
Anatomies
Pathologies

- Ectopic Phantom:
  ectopic pregnancy in a fallopian tube, bleeding at Douglas pouch

Fallopian Tube | Douglas Cavum
Ovary
Rectum
Bleeding
Uterus
Ectopic Pregnancy
Urinary Bladder
Pelvis
Vagina
Anatomies
Pathologies
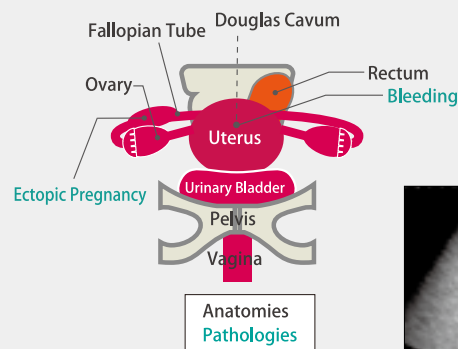
Specifications :

Set Includes:	Manikin Size:
1 mother body torso	W34 x D33 x H24 cm
1 ultrasound pathology unit	
1 ultrasound ectopic pregnancy unit	
1 storage case	
Replacement Parts:	
(41909-030) 1 ultrasound pathology unit	
(41909-040) 1 ultrasound ectopic pregnancy unit	

* Ultrasound machines are not included.

Female Pelvic Ultrasound Phantom with 3 units

Includes a normal unit, a ectopic pregnancy unit and pathology unit.

US-11 Scrotal Ultrasound Phantom
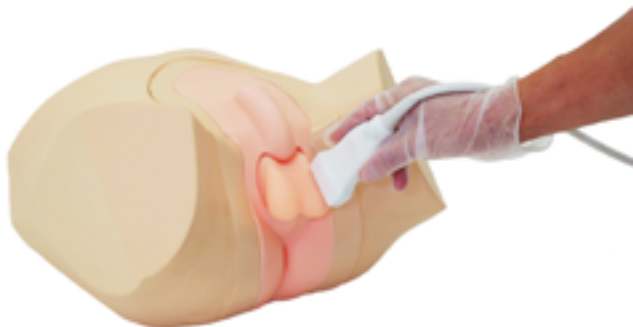
Repeated training to acquire skills in safe and painless examination

Scrotal Ultrasound Phantom provides trainees life-like training with high quality ultrasound images. Interchangeable normal and cancerous phantoms offer not only an anatomical understanding but also pathological images.

Features

1. Two types of interchangeable scrotums: normal and pathology
2. Excellent ultrasound image quality

Training Skills

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

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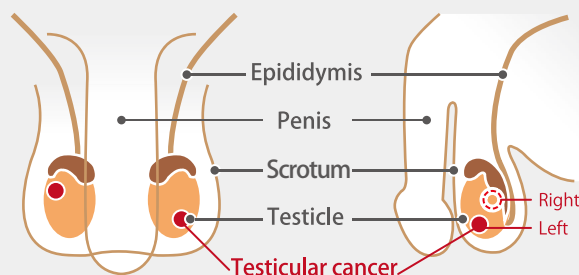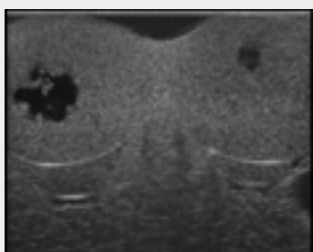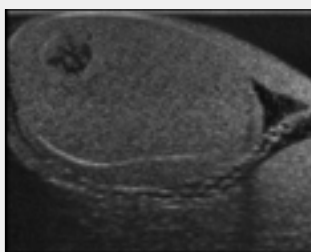
Anatomy

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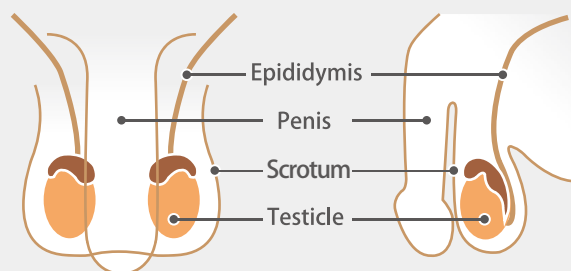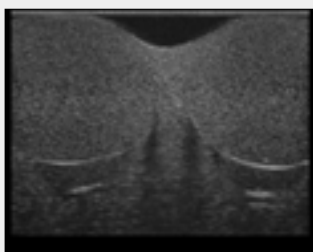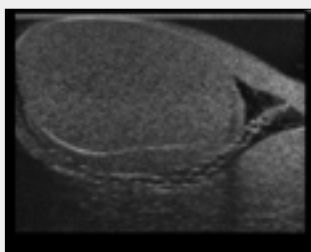
- Pathological Phantom
  - scrotum, testicle, epididymis and penis
  - testicular cancer (each one in left and right testis, 10mm dia.)

Specifications :

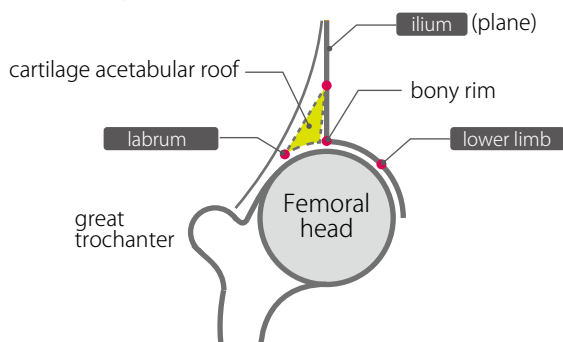| Set Includes:		Manikin Size:	Replacement Parts:
1 pelvic body	1 pathological scrotum	W34 x D33 x H24 cm	(41911-010) 1 normal scrotum unit
1 normal scrotum	1 storage case		(41911-020) 1 pathological scrotum unit

* A ultrasound machines is not included.

Infant Hip Sonography Training Phantom

* The cradle is not included.

## Best tool to teach Graf's method

This is the world's first training phantom with ultrasound anatomy of a 6-week-old infant and it 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., Prof., h.c., Reinhard Graf, M.D.

Training Skills

● Setting and preparation for hip sonography

● Changing the position of the infant

● Communication and interaction with the infant's guardian

● Correct positioning and use of the transducer

● Recognition of ultrasonic landmarks for hip sonography

● Visualization of standard, anterior and posterior planes

● Interpretation and morphological classification of the sonogram

Features

1. The market's only training model for hip sonography on a full body manikin of 6-week-old infant

2. Bilateral hips for examination

3. Key landmarks that can be recognized under ultrasound include:
   - chondro-osseous junction (bony part of femoral neck),
   - femoral head, synovial fold, joint capsule, labrum,
   - hyaline cartilage preformed acetabular roof,
   - bony part of acetabular roof, bony rim (check list I),
   - lower limb of os ilium, correct plane, labrum (check list II).

4. Facilitate anatomical understanding

5. The full body manikin with movable arms allows training in supporting and changing the position of the infant.

Anatomy

ilium (plane)
cartilage acetabular roof
bony rim
labrum
lower limb
Femoral head
great trochanter
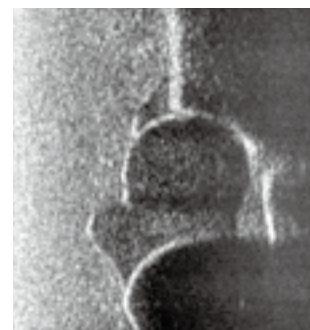
Specifications：

Set Includes:	Manikin Size:	Optional Part:
1 ultrasound infant phantom	W55 x D25 x H13 cm, 3kg	(41914-010)
1 instruction manual		Examination cradle "Pecora"

US-2 — Ultrasound Quality Assurance Phantom (Multi Purpose Phantom N-365)

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.

String target   Cyst target

Close range resolution (dead zone)

Gray Scale

Axial resolution

Lateral resolution
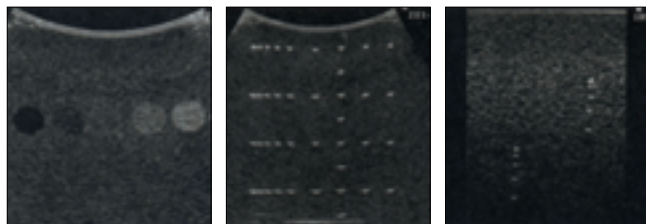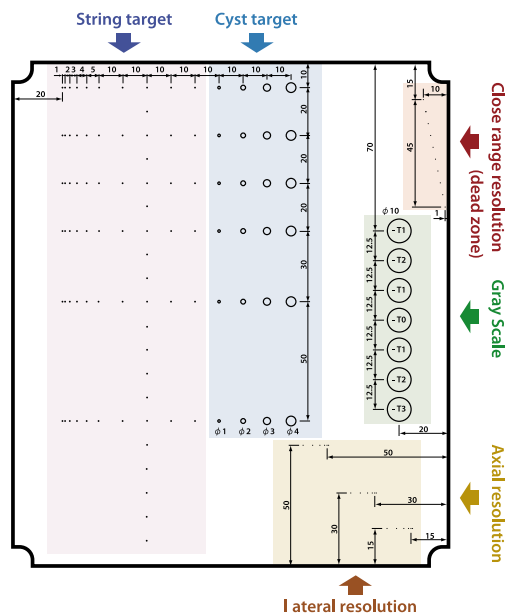
Gray scale   String target   Axial resolution

Specifications :

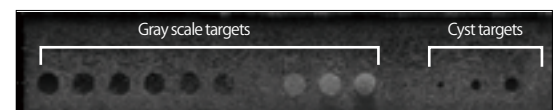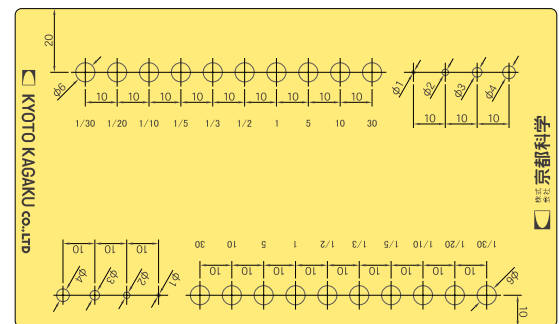| Set Includes:	Phantom Size:
1 phantom	W29 x D7 x H22 cm
1 storage case	

US-4 — Breast Ultrasound QA Phantom

### Ensure highly detailed images to ensure reliable breast cancer examinations

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

Mass targets block (contrast resolution)

Gray scale targets   Cyst targets

Mass targets block (contrast resolution)
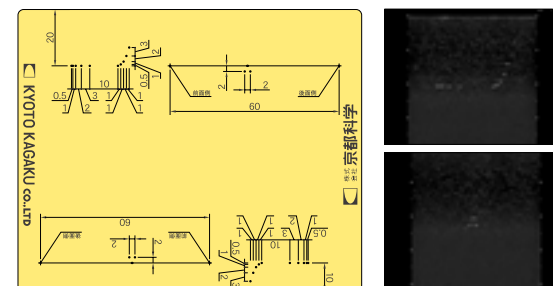
Specifications :

Set Includes:	Phantom Size:
1 mass targets blocks	W18 x D7.5 x H11 cm
1 dot targets blocks	
1 thermometer	
1 storage case	

* A ultrasound machines is not included.

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KYOTO KAGAKU HEAD OFFICE & FACTORIES

15 Kitanekoya-cho, Fushimi-ku, Kyoto 612-8388, JAPAN

📞 +81-75-605-2510   🖨 +81-75-605-2519

KYOTO KAGAKU Co., Ltd
Hong Kong Representative Office

Level 60, One Island East, 18 Westlands Road, Island East, Hong Kong

📞 +852-3978-1365   🖨 +852-3978-1199