Product Portfolio

Medical Imaging

ERLER ZIMMER

Efficient Training and Education with Medical Imaging Techniques

The precise application of imaging techniques is a fundamental part of medical training. Erler-Zimmer offers specially developed products that enable practical and efficient training of medical professionals. Our solutions are designed to optimally prepare learners for the challenges of clinical practice by providing realistic, interactive imaging techniques that enhance understanding and mastery of modern technologies.

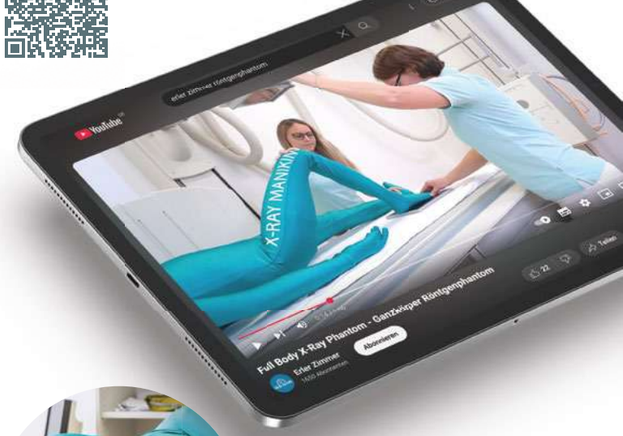
With Erler-Zimmer's high-quality training models, doctors and medical staff can learn in a safe and controlled environment. Our products not only offer accurate replicas of human anatomy but also allow for hands-on practice with imaging techniques such as X-Rays, CT scans, MRI, and ultrasound. This enables professionals to gain the necessary knowledge and skills to work safely and precisely in real-world situations.

Rely on Erler-Zimmer for expert and modern training of your staff. With our imaging solutions, we provide the ideal support to prepare professionals for the demands of medical imaging – with the added benefit of relying on the highest Made in Germany quality, equipping your learners with the best tools to succeed in practice.

Full Body X-Ray Phantom

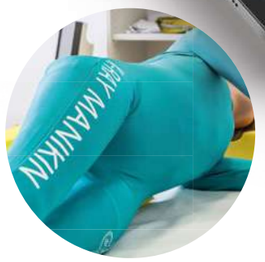
This model is unique in the world and provides excellent training opportunities for positioning and alignment techniques in projection radiography. It should be part of the basic equipment of any radiographic school. The phantom contains a real human skeleton as well as outlines of larynx, lung, heart and kidneys (organs will create a shadow on the image), which allows taking real X-Ray images like in a patient. Using a real skeleton provides even smallest guiding structures which is impossible with a plastic skeleton. During assembly of this phantom we pay special attention to the correct size of joint spaces.

View product video here:



Full Body X-Ray Phantom
Item No. 7200

Radiographic positioning doll, plastic skeleton
Item No. 7201



All joints are moveably mounted allow positioning in all normal X-Ray positions (e.g. frog position, pro- and supination of lower arm). The arms can be moved upwards which makes the phantom suitable for use in all kinds of osseous examinations under CT.

The new version was re-designed in co-operation with a well-known German school for radiographers and fits all needs for education in radiography. This phantom is only sold against proof of medical use. Life size.

With proper handling, our full-body X-Ray Phantom can be used without any issues for many years in numerous training sessions. Should your X-Ray Phantom be damaged, we are happy to offer our straightforward repair service. Please note that any attempts at self-repair should be avoided, as they generally lead to irreparable damage to the bones.

X-Ray Phantom Repair Service

1. **Pick-Up Service**
   The forwarder comeswith an empty transport case and collectsbyour phantom.
2. **Repair Cost Estimate**
   We will provide you with a cost estimate. You decide about a repair then.
3. **Repair**
   The phantom will be repaired fast and reasonable priced at our factory. Result: as NEW!
4. **Delivery**
   The “new” phantom will be delivered by the forwarder.

All Erler-Zimmer phantoms including transport cases.

X-Ray Phantom Thorax

Thorax X-Ray Phantom, consisting of spine (C6 to L3), thoracic cage, shoulder blades and collar bones, embedded in soft materials. Mounted without metal parts. Organs (lung, heart, kidneys) are present as outlines to create a shadow on the X-Ray image. The natural bones used may have, depending on availability, individual pathological changes, minor structural defects or mounting holes.

Item No. 7400

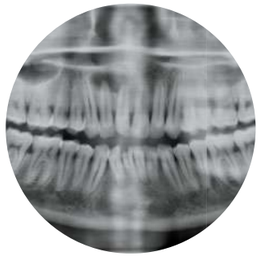
X-Ray Phantom Pelvis, flexible

This flexible X-Ray Phantom Pelvis contains real human bones and offers the unique opportunity to take real X-Ray images. This Phantom consist of a complete pelvis including coccyx, two lumbar vertebrae (L4+L5) and femur stumps. The soft material makes this product ideal for palpation. The natural bone used may have, depending on availability, individual pathological changes, minor structural defects or mounting holes. Delivered with strong transport case.

Item No. 7410

X-Ray Phantom Head

Human skull, safely embedded in plastic for easy use. The jaws are slightly open to allow dental panoramic images of the teeth. The neck includes some cervical vertebrae depending on the ordered type. An embedded tread allows the use with a tripod.



- X-Ray Phantom head with cervical vertebrae, transparent
  Item No. 7300
- X-Ray Phantom head with cervical vertebrae, opaque
  Item No. 7310
- X-Ray Phantom head, transparent
  Item No. 7320
- X-Ray Phantom head, opaque
  Item No. 7330

Tripod for X-Ray Phantom head
Item No. 7350

X-Ray Phantom shoulder

This X-Ray part phantom gives the unique opportunity to take X-Ray images of single body parts again and again. The Phantom includes real human bones and allows taking real X-Ray images. The model is perfect for schools and education, but also for medical technicians since the same bones can be X-Rayed again and again in different settings without the danger of harming a patient. The bones are embedded in transparent plastic.

Transparent
Item No. 7340

Opaque
Item No. 7345

X-Ray Phantom Lower Arm

Hand with forearm and elbow.

Transparent
Item No. 7220

Opaque
Item No. 7225

X-Ray Phantom Elbow

Part of upper and lower arm.

Transparent
Item No. 7260

Opaque
Item No. 7265

X-Ray Phantom Hand

Hand with wrist.

Transparent
Item No. 7210

Opaque
Item No. 7215

X-Ray Phantom Pelvis

With two lumbar vertebrae and femur stumps.

Transparent
Item No. 7240

Opaque
Item No. 7245

X-Ray Phantom Knee

Part of upper- and lower leg and patella.

Transparent
Item No. 7250

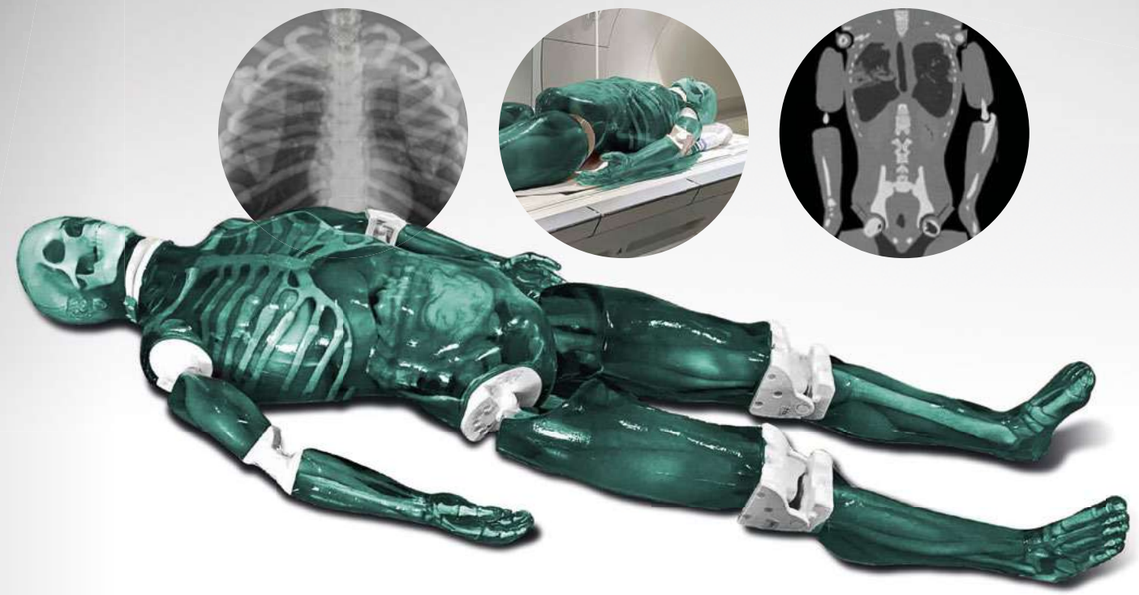
Opaque
Item No. 7255

X-Ray Phantom Foot

Foot Skeleton with start of lower leg.

Transparent
Item No. 7230

Opaque
Item No. 7235



Adult Full Body Imaging Phantom

The primary application of this phantom is to train and demonstrate various patient positioning techniques in radiology. Other uses include hands-on experience with diagnostic imaging techniques and visual evaluation to find optimal scanning conditions.

In terms of MRI applications, the phantom tissues have realistic T2 relaxation time values, which makes this product the best fit for any T2-weighted MRI imaging methods. Very good results can also be achieved with proton-density imaging methods.

The phantom can still be imaged with T1-weighted methods, but the T1 values are less realistic, and they are within the range of about 100 ms.

The model of this phantom is based on an adult male body that weighs about 70 kg (154 lb) and measures 172 cm (69 in) in height.

The skeleton is built from individually cast bones with a realistic three-layered structure with inner porosity. The properties and structures of the bones can be adjusted according to the requirement of the particular project. Upon request, the phantom is customizable with different pathologies such as lesions, tumors, infections, and abnormalities.

Anatomy:

- Full Human Body (10 Parts)
- Realistic Body and Muscle Tissue-Mimicking Material
- Rotatable Shoulders (360° Around and 180° Sideways)
- Movable Hip, Knee, and Elbow Joints
- Detachable Head, Torso, and Limbs
- Adult Head
- Adult Torso
- Adult Arms
- Adult Legs

Suitable for X-Ray, CT and MRI,
with muscles
Item No. FLB02

Suitable for X-Ray/CT and Ultrasound,
without muscles
Item No. FLB03

Suitable for X-Ray/CT and Ultrasound,
with muscles
Item No. FLB04

Anatomy:

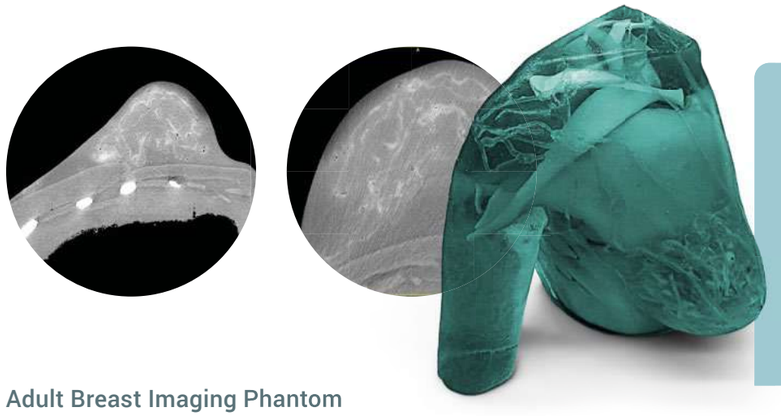
- Pediatric Full Body
- Realistic Body Tissue
- Shoulders Rotatable 360 Degrees Aroundand 180 Degrees Sideways
- Moveable Hip Joints, Knees, and Elbows
- Detachable Head, Torso, and Limbs
- Customizable with Different Pathologies (Lesion, Tumor, Infection, etc.)
- Transparent or Skin-Colored Appearance
- Pediatric Human Head
- Pediatric Human Torso
- Torso Organs
- Pediatric Human Arms
- Pediatric Human Legs

Child Full Body Imaging Phantom

The design of this phantom is based on the model of a 4-year-old child 40" (102 cm) in height. This phantom is a life-size, full-body anthropomorphic phantom with anatomically correct organs and realistic bones constituted in 10 body parts. The phantom weighs about 20 kg and can be used for visual evaluation in finding out optimal scanning conditions. The skeleton is built from individually cast bones made from a patented epoxy-based composite material.

Suitable for X-Ray, CT and MRI
Item No. FLP01

Suitable for X-Ray/CT and Ultrasound
Item No. FLP02



Anatomy:

- Partial Ribs and Cartilage
- One Lung
- Major Fat Tissues
- Major Muscles
- Axillary Lymph Nodes
- Subcutaneous Adipose
- Retromammary Adipose
- Mammary Glands
- Two Spherical Tumors

Adult Breast Imaging Phantom

The Adult Breast is a realistic phantom that is designed around the average anatomy of a female breast, and it has all the essential bones and organs. This phantom is ideal for studies, research, and testing of medical imaging devices. It is a life-size female breast phantom with all bony and major organ structures. The breast can be used to study several diagnostic procedures in different orientation and positioning techniques. Upon request, this product can be customized with different pathologies and for specific training applications.

Suitable for X-Ray, CT and MRI
Item No. FLT01

Suitable for X-Ray/CT and Ultrasound
Item No. FLT02

Adult Torso Imaging Phantom

Anatomy:

- Complete Spine
- Complete Ribcage
- Shoulders & Clavicles
- Pelvis
- Partial Femur Bones
- Trachea
- Heart
- Lungs
- Diaphragm
- Liver
- Gallbladder
- Stomach
- Kidneys
- Spleen
- Pancreas
- Large and Small Intestines
- Bladder
- Prostate

Adult Torso for X-Ray CT, Ultrasound is designed based on an average anatomy of an adult healthy human male. It is compatible with X-Ray/CT and Ultrasound. The skeleton is made from individually cast bones from a realistic patented epoxy-based composite material with vertebrae that have a realistic three-layered structure with inner porosity. An ideal phantom for training ultrasound technicians and other medical students.

Item No. FLU02

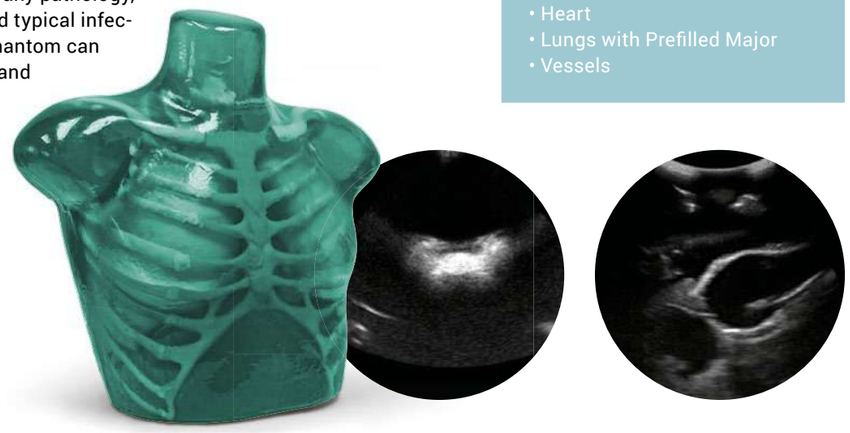
Adult Chest Imaging Phantom

This phantom is based on an average human anatomy and its skeleton is individually cast from a realistic patented bone material that is suitable for X-Ray/CT and Ultrasound applications. It can be used for medical imaging research and radiology training and can also be served as a customized tool for equipment testing and calibration. The vertebrae have a realistic three-layered structure with inner porosity, which can be djusted according to the requirement of the particular project. The lungs installed inside this torso can be customized in several ways to simulate any pathology, such as mucus, lesions, and typical infections. Upon request, this phantom can also be customized in size and shape (i.e. based on the individual's CT scan).

Item No. FLX02

Anatomy:

- Spine with Porous Inner
- Structure
- Complete Ribcage
- Shoulders and Clavicles
- Trachea
- Heart
- Lungs with Prefilled Major
- Vessels



Erler-Zimmer Nature Line CT-Phantoms

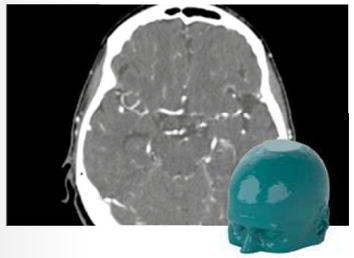
Are created from real human patient data and are manufactured with latest technology. Bone and soft tissues are accurately represented with realistic Hounsfield units for all tissues at 120 kVp tube voltage CT imaging. If the phantom is primarily required for CT imaging at different tube voltages (e.g., 100 kVp), the calibration of Hounsfield units can be adapted accordingly upon request. The phantom also yields realistic tissue contrast in X-Ray imaging. Air voids are filled with a cellulose-polymer composite of approximately -80 Hounsfield units.

Exclusive at Erler-Zimmer!

Head CTA

Extremely realistic simulation of a head and neck CT angiography. The phantom has no significant vascular pathologies.

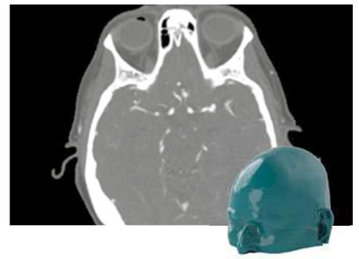
Item No. NLP1000



Head CTA aneurysm

The phantom has three intracranial aneurysms of the middle cerebral artery (MCA), anterior communicating artery (ACoA), and the basilar artery.

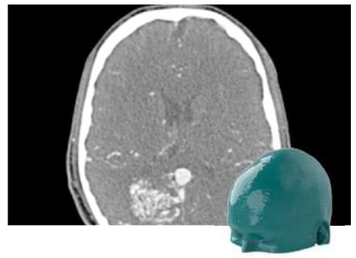
Item No. NLP1510



Head CTA AVM

The right hemisphere of the phantom has an arteriovenous malformation.

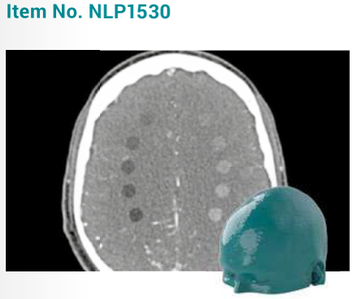
Item No. NLP1520



Head CTA AVM/lesion

The phantom has 10 low-contrast lesions in the centrum semiovale and the right hemisphere has an arteriovenous malformation.

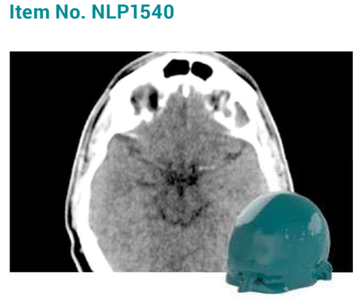
Item No. NLP1530



Head Stroke/Bleed

This phantom simulates a head with stroke and bleeding patterns. It covers the vertex to the foramen magnum.

Item No. NLP1540



Head/Neck CTA

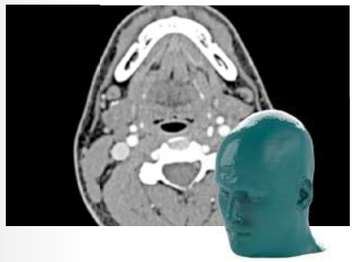
The interncal carotid artery has calcifications on both sides with moderate stenosis on the right side. No significant vascular pathologies.

Item No. NLP1600

Head/Neck CTA AVM

Simulates a contrast medium enhanced head in arterial phase. The right hemisphere has an arteriovenous malformation.

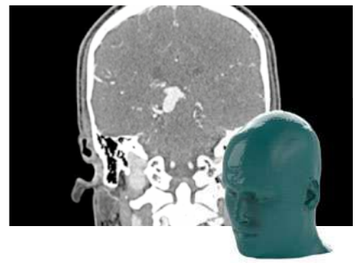
Item No. NLP1610



Head/Neck CTA AVM/lesion

The phantom has 10 low-contrast lesions in the centrum semiovale and the right hemisphere has an arteriovenous malformation.

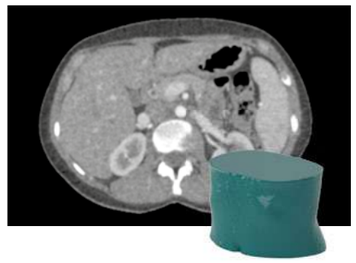
Item No. NLP1620



Abdomen arterial phase

Simulates a contrast medium enhanced abdomen in arterial phase. It covers the eleventh thoracic vertebra to the fourth lumbar vertebra.

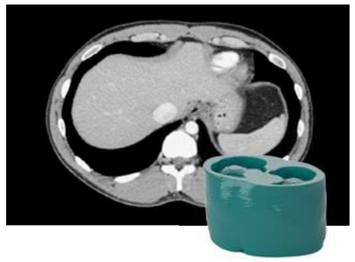
Item No. NLP1100



Abdomen portal venous phase

Simulates a contrast medium enhanced abdomen in portal venous phase. It covers the eleventh thoracic vertebra to the fourth lumbar vertebra.

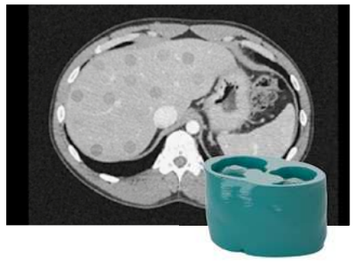
Item No. NLP1710



Abdomen low-contrast spheres

The phantom has 42 spherical liver lesions with 8 and 12 mm diameter and lesion contrasts of 10, 20, 30 and 40 HU to the surrounding liver.

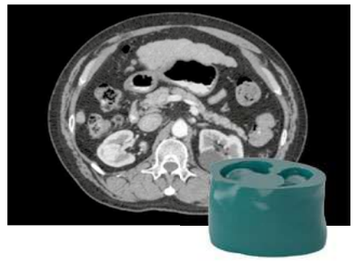
Item No. NLP1720



Abdomen cirrhosis

The phantom represents an abdomen after cholecystectomy with small clips.

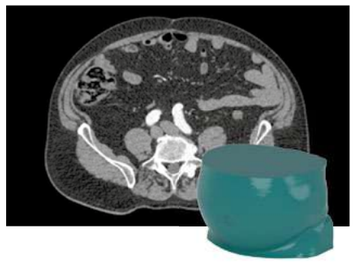
Item No. NLP1730



Abdomen aortic aneurysm

This phantom simulates a contrast medium enhanced abdomen in arterial phase. It has an infrarenal abdominal aortic aneurysm.

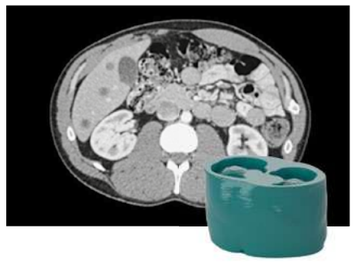
Item No. NLP1740



Abdomen mixed cylinders

The phantom has 35 rod-shaped liver lesions with 5 to 15 mm diameter and lesion contrasts of 25 to 110 HU to the surrounding liver.

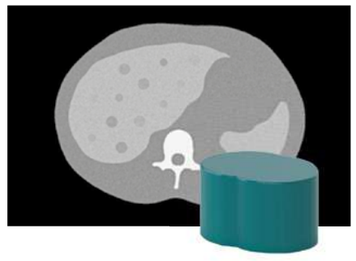
Item No. NLP1750



Uniform Abdomen low-contrast

The phantom has 64 spherical lesions in the liver with 8 and 12 mm diameter and lesion contrasts of 10, 20, 30 and 40 HU to the surrounding liver.

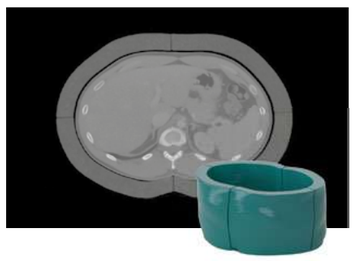
Item No. NLP1760



2.5 cm fat ring for Abdomen

This 2.5 cm thick fat ring is made of adipose tissue equivalent material and can be mounted around abdomen phantoms for scanning.

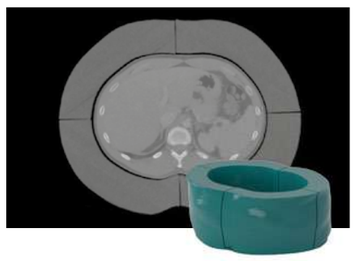
Item No. NLP1775



5 cm fat ring for Abdomen

This 5 cm thick fat ring is made of adipose tissue equivalent material and can be mounted around abdomen phantoms for scanning.

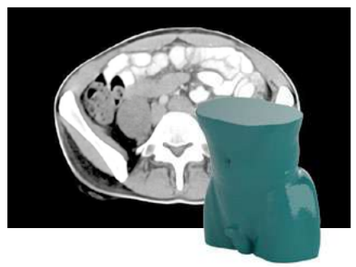
Item No. NLP1780



Abd./Pelvis portal venous phase

Simulates a contrast medium enhanced abdomen and pelvis in portal venous phase. It has iliac lymph node masses on the right side.

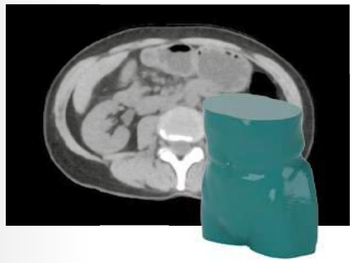
Item No. NLP1800



Abdomen/Pelvis native

Simulates an abdomen and pelvis without intravenous contrast (native). It has a pancreatic mass and liver lesions.

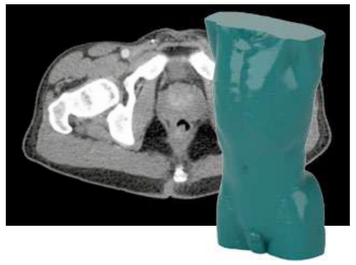
Item No. NLP1810



Torso portal venous phase

Simulates a contrast medium enhanced thorax, abdomen and pelvis in portal venous phase. It has iliac lymph node masses on the right side.

Item No. NLP2000



Child Torso 1-year-old

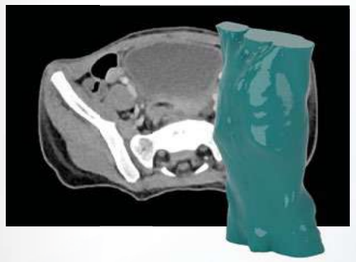
This phantom simulates a 1-year-old child's contrast medium enhanced thorax, abdomen and pelvis in portal venous phase.

Item No. NLP3000

Child Torso 3-year-old

This phantom simulates a 3-year-old child's contrast medium enhanced thorax, abdomen and pelvis in portal venous phase.

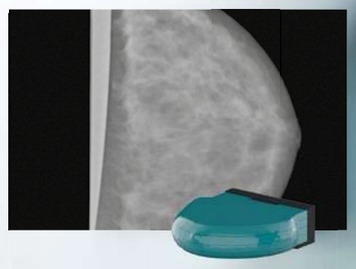
Item No. NLP3050



Breast mass and calcifications

This breast phantom simulates a compressed breast. It is composed of four slabs that are held together by a magnetic mount.

Item No. NLP1400



Hand metacarpal fractures

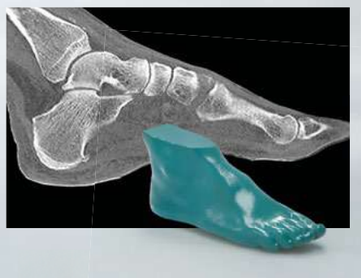
Right hand with two metacarpal fractures. It covers the entire hand including fingers, metacarpus, carpus and the distal parts of the ulna and radius.

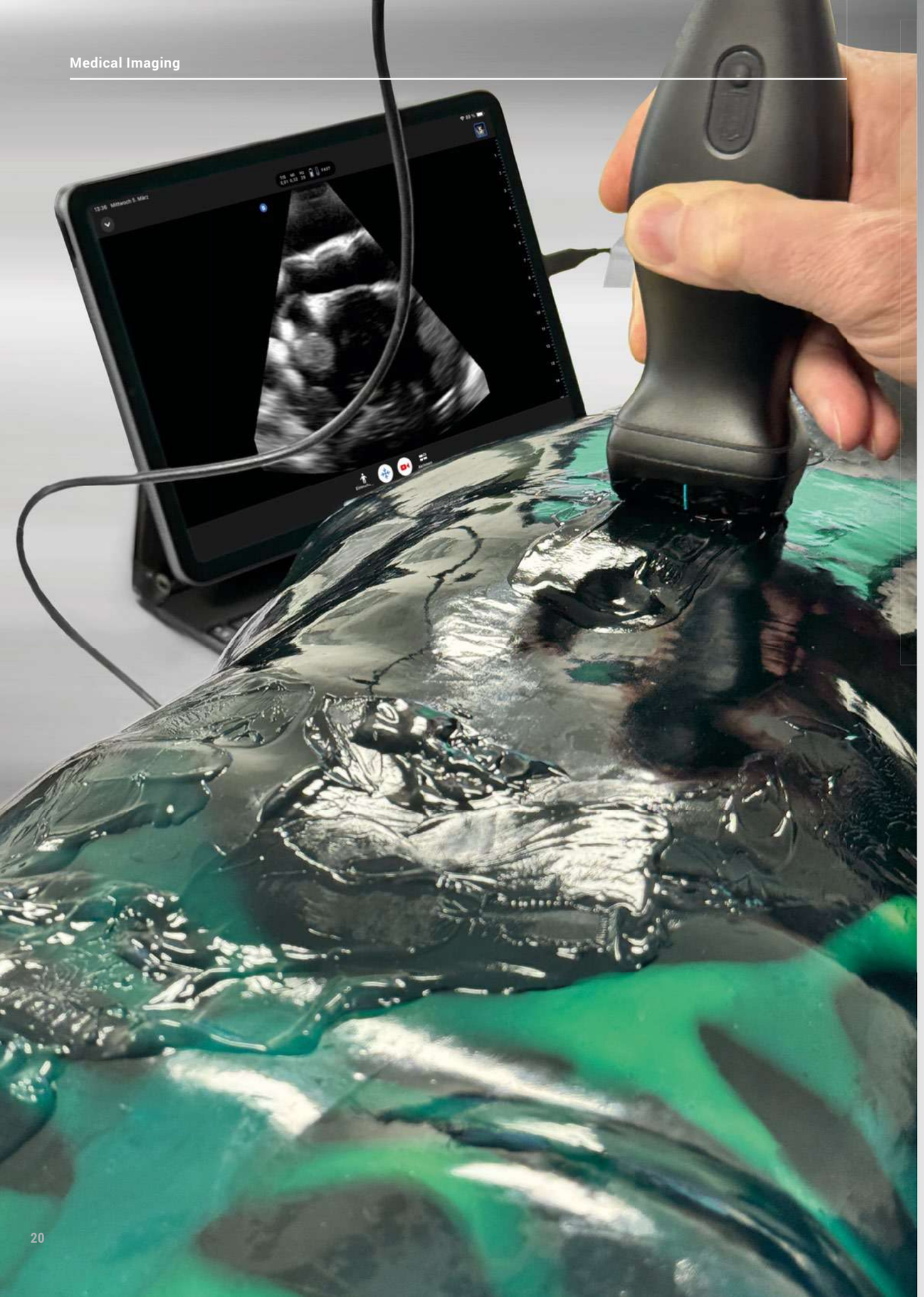
Item No. NLP1300

Foot metatarsal fractures

Right foot with non-displaced fractures of metatarsals II–IV. It covers the entire foot including toes, metatarsus, tarsus, and distal tibia/fibula.

Item No. NLP1310





Echo Eddie
Advanced Ultrasound Examination Trainer

FAST-Ultraso and Simulator-Focused Assessment with Sonography for Trauma. The Adult FAST Torso phantom, is for ultrasound imaging, with a primary focus on the FAST (Focused Assessment with Sonography in Trauma) protocol. This highly realistic phantom replicates the intricacies of the adult torso, providing practitioners with a tool for refining their diagnostic skills. Specifically tailored to replicate trauma scenarios, it offers practitioners a lifelike environment to master the FAST protocol by identifying its various pathologies.

Item No. 9100

The phantom is comprised of 3D-printed plastic bones. It also includes organs made from ultrasound-compatible tissue-mimicking material. Pathologies included in this phantom make it a great tool for FAST training.

Anatomy:

3D Printed Plastic Bones:
- Complete Spine
- Complete Ribcage
- Shoulders and Clavicles
- Pelvis Structure
- Partial Femur Bones
- Kidneys
- Spleen
- Pancreas
- Large and Small Intestines
- Bladder
- Prostate

Thoracic Organs:
- Trachea
- Heart with Four Chambers
- Lungs

Abdominal Organs:
- Diaphragm
- Liver
- Gallbladder
- Stomach

Pathologies:
- Cholecystitis
- Aortic Aneurysm
- Lesions in the Colon

Internal Hemorrhages:
- Perihepatic
- Perisplenic
- Pericardial
- Around the Bladder

SonoEZ Ultrasound Trainer

The new SonoEZ series consists of a lifelike, highly ultrasound-capable material that provides extremely realistic ultrasound images. The pad can be punctured, the puncture channels close almost completely due to the new material, so that nothing can be seen on the ultrasound image for a very long time.

SonoEZ Ultrasound Trainer “Vessel”

This trainer offers the possibility of scanning and puncturing a blood vessel with a diameter of 6mm and a depth of 5mm to 30mm.

Item No. SEZ-VE

SonoEZ Ultrasound Trainer “Deep vein thrombosis”

This trainer contains a healthy vessel with a diameter of 8 mm and a vessel with a thrombosis with a diameter of 8 mm.

Item No. SEZ-DVT

SonoEZ Ultrasound Trainer “Nerve”

This trainer offers the possibility of scanning two nerves with a diameter of 3mm and a depth range of 5mm to 30mm.

Item No. SEZ-NE

SonoEZ Ultrasound Trainer “Branched vessel”

This trainer offers the possibility of scanning and puncturing a blood vessel with a diameter of 6 mm which branches into two vessels with a diameter of 3 mm.

Item No. SEZ-BV

SonoEZ Ultrasound Trainer “Echo”

This trainer contains 4 different echogenic targets (isoechoic, hypoechoic, hyerechoic, anechoic). Contains 4 different echogenic targets: Isoechoic, Hypoechoic, Hyperechoic, Echoic.

Item No. SEZ-IN

SonoEZ Pediatric Ultrasound Trainer “CVC”

This model is for practising Cannulation. There are two vessel, Carotid Artery and IJ (Internal Jugular vein).

Item No. SEZ-PD-CVC

SonoEZ Pediatric Ultrasound Trainer “Femor”

This pediatric ultrasound trainer represents the femoral area. It contains the femoral artery and the femoral vein.

Item No. SEZ-PD-FE

SonoEZ Pediatric Ultrasound Trainer “Cannular”

This model has 2 small vessels at different depths, which are filled with liquid.

Item No. SEZ-PD-KA

SonoEZ Pediatric Ultrasound Trainer “Vessel”

This ultrasound trainer offers the possibility of puncturing 2 pediatric vessels.

Item No. SEZ-PD-VE

SonoEZ Ultrasound Trainer “Thyroid”

This ultrasound trainer is for anatomical and needle training in the thyroid region, including biopsy simulation.

Item No. SEZ-TH

SonoEZ Ultrasound Trainer “Training Face”

The facial sono-simulator covers the most important mimic and caudal facial muscles.

Item No. SEZ-FA

SonoEZ Ultrasound Trainer “Model Shoulder”

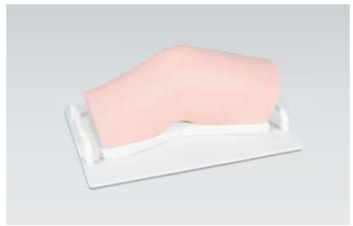
This shoulder model shows: Humerus, Scapula, Clavicle, cartilage, tendons, bursa, AC joint, and muscles.

Item No. SEZ-SH

SonoEZ Ultrasound Trainer “Knee” (left)

This left knee model shows: Femur, Tibia, Patella, tendons, ligaments, fat pads, and bursae.

Item No. SEZ-KN



SonoEZ Ultrasound Trainer “Urinary bladder”

Ideal ultrasound trainer to reduce UTIs from unnecessary catheterization in hospitals and nursing homes.

Item No. SEZ-BL

EXPERTS IN MEDICAL EDUCATION

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