

Newborn Skull

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02867



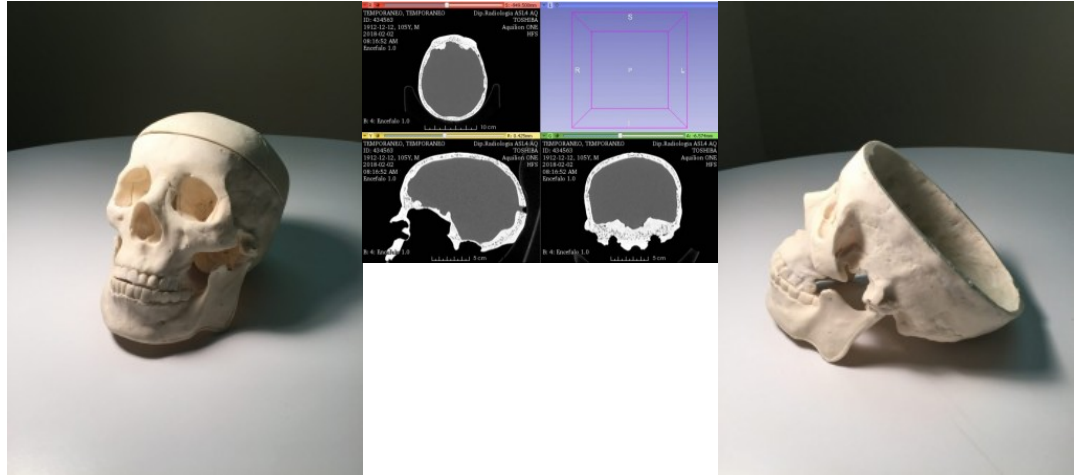
Newborn Human Skull Phantom can be used for medical imaging research and treatment planning of non-invasive HIFU brain surgeries.

The design of this phantom is based on an average newborn skull and it is made out of realistic patented bone material that is suitable for **Ultrasound, MRI and CT** applications (any other part of the skull can be fabricated based on the customer order).

Adult Skull

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02859



Adult Human Skull Phantom can be used for medical imaging research and treatment planning of non-invasive HIFU brain surgeries. The design of this phantom is based on an average human male head and it is made out of realistic patented bone material that is suitable for Ultrasound, MRI and CT applications (any other part of the skull can be fabricated based on the customer order). The phantom has a realistic three-layered structure and the inner porosity can be adjusted according to the requirement of the particular project. Below is an example of custom built skull phantom for a client as per the geometrical needs of his project.

Adult Skull with Brain

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02856



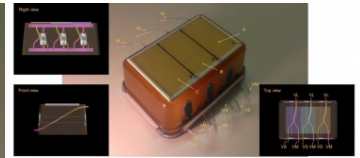
Adult Human Skull with brain Phantom is similar to our Head Phantom without the skin mimicking tissue. It can serve multiple purpose(s) such as medical imaging research & treatment planning of non-invasive HIFU brain surgeries.

The design of the skull phantom is based on an average human male skull and it is made out of realistic patented bone material that is suitable for Ultrasound, MRI and CT applications (any other part of the skull can be fabricated based on the customer order). The brain inside this phantom is similar to our standard brain phantom with an addition of brain blood vessels and bifurcation feature. The skull phantom has a realistic three-layered structure and the inner porosity can be adjusted according to the requirement of the particular project. As mentioned above, the phantom is visible on Ultrasound, MR and CT scans. The brain parenchyma inside of the skull phantom is made of an ultra-soft polyurethane-based material that mimics soft tissue and its anatomical shape was created based on the optical scan of an average human brain model used in the anatomy class for medical students. The materials used to build the phantom are stable over time and they do not dry out. The phantom comprises the entire ventricular system (lateral, third and fourth ventricles) which can be used to generate pressure inside the brain, and more closely approximate real cerebral anatomy. The ventricles are inflatable and can be filled with any liquid. Prior to imaging the phantom please fill the ventricles completely with water (or chosen contrast agent) using the tube on the back of the brain. After the ventricles are filled, plug the tube with a removable blue silicone plug.

Doppler Phantom

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02872



LEGEND:
A - Bone sample with 2.0mm thickness
B - Bone sample with 4.0mm thickness
C - Bone sample with 5.0mm thickness
VL - Large vessel with 4mm inner diameter
VM - Medium vessel with 3mm inner diameter
VS - Small vessel with 2mm inner diameter

Doppler Phantoms are used for medical imaging research & development, training, and testing purpose(s).

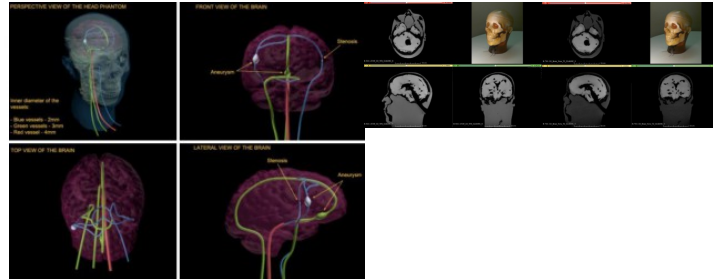
These can be customized in multiple ways to suit the needs of our client's applications. **The following are the features that comes along with the DP-C01 model:**

- Partial skull phantom with a customized thickness;
- Filling the phantom with the acoustically correct brain mimicking material
- Custom blood vessels
- Standard tubes and connectors connected to the custom vessels
- Incorporating the phantom within a standard compact box
- Implementing a thin film on top of the phantom
- Custom target wires

Adult Head Phantom (Dynamic) for MRI, CT and Ultrasonography

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01870



A professional, realistic head phantom designed for imaging the medical flow of blood in the skull. Phantom is designed based on a medium-sized man's head and is made of realistic materials that mimic human tissue. Ideally suited for ultrasound, MRI and CT applications.

Phantom consists of the following elements:

- Anatomically correct realistic skull
- Realistic brain phantom
- A complex structure of blood vessels with a built-in Willis circle
- One bifurcation
- One stenosis
- One aneurysm

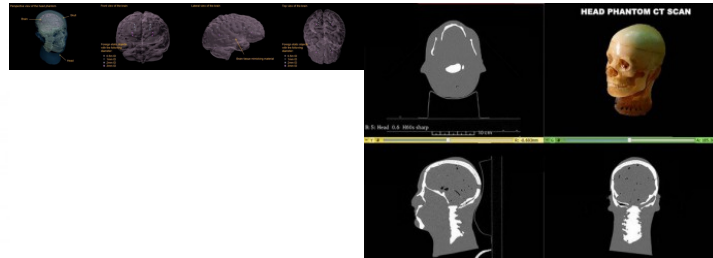
Additional information: Instruction, Transport bag, Detailed specification on request

THERE IS POSSIBILITY TO CUSTOMIZE THIS PRODUCT BASED ON YOUR REQUIREMENTS!

Head phantom (Static) for MRI, CT and Ultrasonography

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01869



A professional phantom head designed for medical imaging of foreign static objects, such as small bones, shards, spheres and other metal or non-metallic objects. It was designed based on a medium-sized man's head. Made of realistic tissue mimics, suitable for appropriate ultrasound, MRI and CT imaging applications.

Phantom consists of the following elements: Anatomically correct realistic skull Realistic brain phantom A set of small static objects (pieces of bone and metal with the following diameters: 0.5 mm, 1 mm, 2 mm and 3 mm)

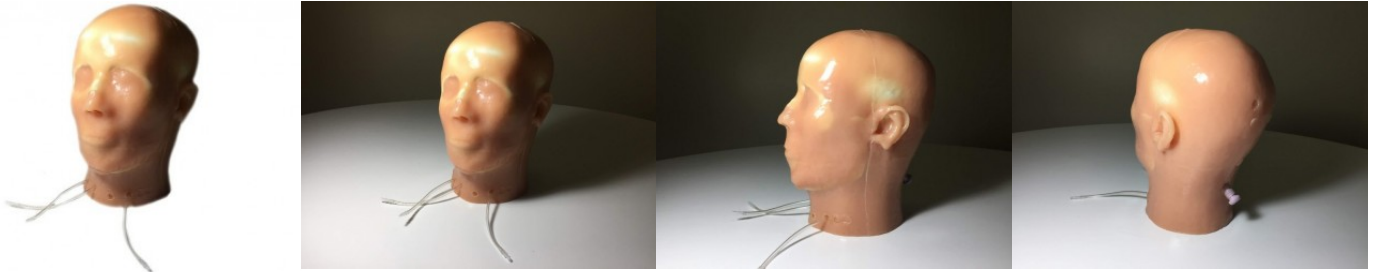
Additional information: Instruction, Transport bag, Detailed technical specification on request

THERE IS A POSSIBILITY TO CUSTOMIZE THIS PRODUCT BASED ON YOUR REQUIREMENTS!

Adult Head (Standard)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02854



Adult Head (Standard) phantom is visible on Ultrasound, MR and CT scans. The brain parenchyma inside of the skull phantom is made of an ultra-soft polyurethane-based material that mimics soft tissue and its anatomical shape was created based on the optical scan of an average human brain model used in the anatomy class for medical students. The materials used to build the phantom are stable over time and they do not dry out.

Includes:

- Anatomically correct realistic skull
- Realistic brain phantom
- Water fillable brain ventricles
- Brain tumor
- Blood vessels with one bifurcation
- Falx cerebri
- Skin implemented to the skull

The phantom comprises the entire ventricular system (lateral, third and fourth ventricles) which can be used to generate pressure inside the brain, and more closely approximate real cerebral anatomy. The ventricles are inflatable and can be filled with any liquid. Additional informations:

- Adult Head phantom (Standard)
- User Manual
- Hard carry case
- Weight: 8kg (Approx.)
- Dimensions: 33 x 23 x 30 cm

Adult Head (Dynamic, Advanced)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02858



The design of this phantom is based on an average human male head and it is made out of several realistic tissue-mimicking materials that are suitable for Ultrasound, X-Ray CT, and MRI applications.

This phantom consists of the following components:

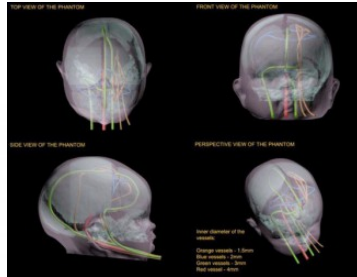
- Anatomically correct realistic skull with temporal and suboccipital windows for transcranial Doppler ultrasound
- Openable and removable Calvaria
- Geometry and dimensions of an average brain
- Complex brain vessels incorporated Circle of Willis
- Brain ventricles (water fillable brain cavities to mimic change of pressure inside of the brain)
- Acoustically correct skin-mimicking material implemented to the skull (the phantom has an appearance of an actual human head)



Newborn head phantom for MRI, CT and ultrasound diagnostics (Dynamic)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01898



Anatomically correct newborn head phantom. Phantom is designed to imaging the medical flow of blood under the skull. It has been designed based on the average head of a newborn and is made of realistic materials that mimic the soft and hard tissue of appropriate structures for USG, MRI and CT applications.

Phantom consists of the following elements:

- Anatomically correct realistic skull
- Skull filled with acoustically correct brain mimicking material
- Complex blood vessel structure with incorporated Circle of Willis
- One bifurcation
- Complex network of small vessels

PLEASE NOTE: WE CAN CUSTOMIZE THIS PRODUCT BASED ON YOUR REQUIREMENTS!

Adult Head (Training, V1)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02850



Adult Head (Training, V1) is an X-RAY CT and MRI compatible training phantom, used by radiology schools, medical schools & teaching hospitals for training their students & medical professionals the various scanning techniques on X-Ray/CT and MRI scanners. Includes:

- Anatomically correct realistic skull phantom
- Realistic brain phantom:
- Realistic brain tissue
- Gray matter (contrast x)
- White matter (contrast x')
- Realistic air cavities within the phantom
- Acoustically correct skin-mimicking material
- Cervical spine
- Alignment markings
- Frontal sinus with air gaps

Includes:

- User Manual
- Hard carry case

Size & Weight: Weight: 8kg (Approx.) Dimensions: 33 x 23 x 30 cm

Adult Head (Training, V2)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02851



Adult Head (Training, V1) is an X-RAY CT and MRI compatible training phantom, used by radiology schools, medical schools & teaching hospitals for training their students & medical professionals the various scanning techniques on X-Ray/CT and MRI scanners.

Includes:

- Anatomically correct realistic skull phantom
- Realistic brain phantom:
- Realistic brain tissue
- Gray matter (contrast x)
- White matter (contrast x')
- Falx cerebri
- Realistic air cavities within the phantom
- Acoustically correct skin-mimicking material
- Cervical spine
- Alignment markings
- Frontal sinus with air gaps

Includes:

- User Manual
- Hard carry case

Size & Weight: Weight: 8kg (Approx.) Dimensions: 33 x 23 x 30 cm

Adult Head (Customizable)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02861



Head Phantoms are used for medical imaging (both static and flow) as well as for training medical students and practitioners. The design of this phantom is based on an average human male head and it is made out of several realistic tissues mimicking materials that are suitable for Ultrasound, MRI and X-RAY CT applications.

Based on the requirements of your project, you can select any of the following features or a combination of them:

- Grey Matter Cerebrum
- White Matter Cerebrum
- Aneurysm/Stenosis feature
- Brain ventricles feature
- Epidural feature
- Tumor feature
- Bifurcation feature
- Blood vessels feature
- Skull/Calvaria feature
- Foreign objects feature

Adult Spine

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02860



Our Adult Spine phantom is a complete 'average human sized spine' consisting 25 individual vertebrae assembled on top of each other.

It is majorly composed of the following components:

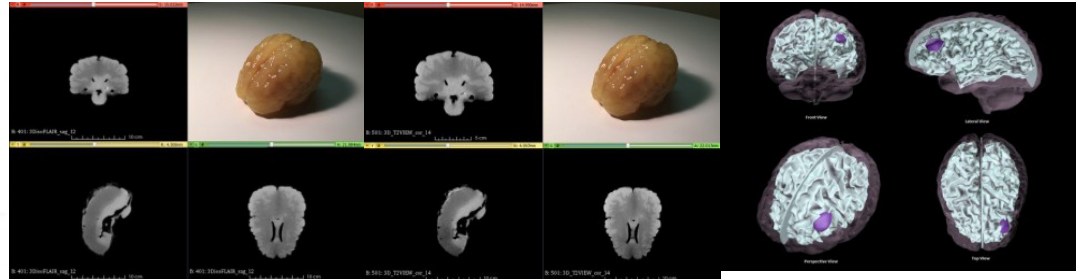
- The Cervical vertebrae (C1 to C7)
- The thoracic vertebrae (T1 to T12)
- The lumbar vertebrae (L5 L1A)

It can be further customized by adding an empty spinal canal behind the vertebrae that can be filled with water for ultrasound applications. Another option would be to have a spinal canal filled with a fake spinal cord for medical imaging applications. All our phantoms are compatible with ultrasound, X-ray CT and MRI. The vertebrae's have a realistic three-layered structure and the inner porosity can be adjusted according to the requirement of the particular project.

Adult brain phantom for puncture/biopsy under ultrasound guidance (Basic)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01876



A professional brain phantom. Anatomically correct, made based on the average human brain, performed from realistic materials that mimic human tissues. Phantom is intended for ultrasonography diagnostic (USG), magnetic resonance (MRI) and tomography (CT) training. **The model is also suitable for puncture/ biopsy - the ability to assess the position of the needle. ATTENTION! A needle puncture leaves a lasting trace in the phantom.**

There is a possibility to adjust the phantom for the needs of a given project.

Basic version of phantom consists the following features / functions:

- geometry and dimensions of the average human brain
- gray matter
- white matter
- tumor

Additional information:

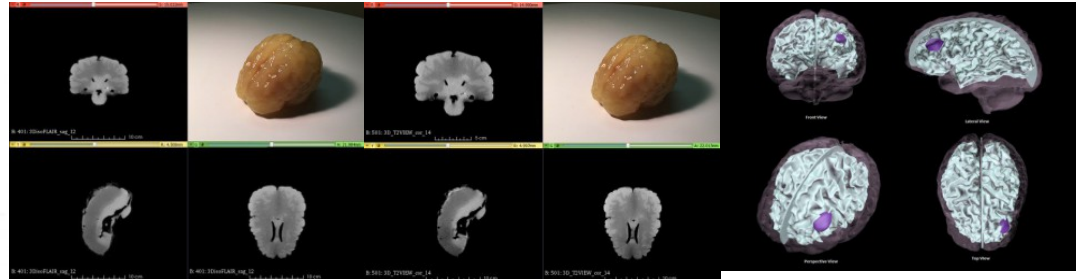
- ideal for training imaging diagnostics for doctors, medical students, electroradiologists, radiology technicians
- the model is also **suitable for puncture** - the ability to assess the position of the needle. **ATTENTION! A needle puncture leaves a lasting trace in the phantom.**
- It is possible to adjust the characteristics of the model for a given project.

Detailed properties:

Adult brain phantom for diagnosis of MRI, CT and ultrasound (Basic)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01873



A professional brain phantom. Anatomically correct, made based on the average human brain, performed from realistic materials that mimic human tissues. Phantom is intended for ultrasonography diagnostic (USG), magnetic resonance (MRI) and tomography (CT) training.

There is a possibility to adjust the phantom for the needs of a given project.

Basic version of phantom consists the following features / functions:

- geometry and dimensions of the average human brain
- gray matter
- white matter
- tumor

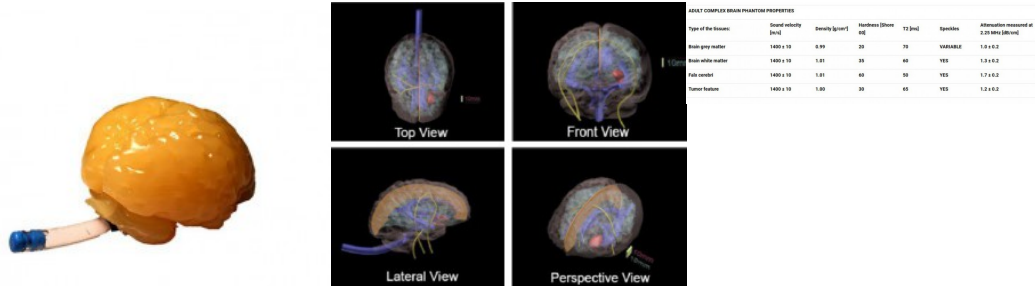
Additional information:

- ideal for training imaging diagnostics for doctors, medical students, electroradiologists, radiology technicians
- the model is also **suitable for puncture** - the ability to assess the position of the needle. **ATTENTION! A needle puncture leaves a lasting trace in the phantom.**
- It is possible to adjust the characteristics of the model for a given project.

Advanced Adult brain phantom for diagnosis of MRI, CT and ultrasound

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01872



A professional, multipurpose brain phantom. Anatomically correct, made based on the average human brain, built from realistic materials that mimic human tissues. Phantom is intended for ultrasonography diagnostic (USG), magnetic resonance (MRI) and tomography (CT) training.

Upon special request, the phantom features and the properties of the tissue mimicking materials can be customized based on the requirements of any particular project.

Advanced version of phantom consists the following features / functions:

- geometry and dimensions of the average human brain
- gray matter
- white matter
- tumor
- Brain ventricles
- Blood vessels with 2mm inner diameter and one bifurcation
- Falx cerebri

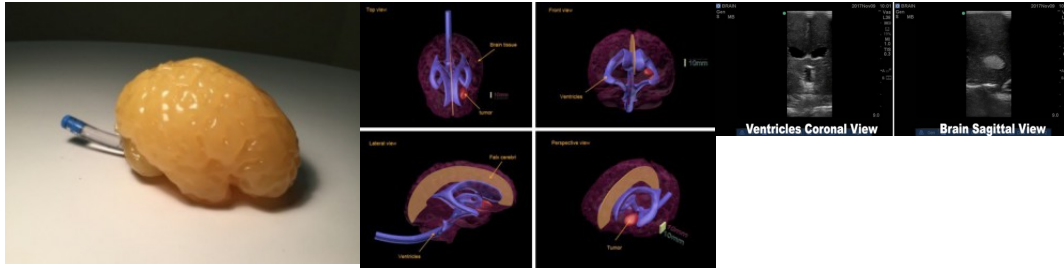
Additional information:

- ideal for training imaging diagnostics for doctors, medical students, electroradiologists, radiology technicians
- the model is also **suitable for puncture** - the ability to assess the position of the needle. **ATTENTION! A needle puncture leaves a lasting trace in the phantom.**
- **It is possible to adjust the characteristics of the model for a given project.**
- **The possibility of adding contrast**

Standard adult brain phantom for diagnosis of MRI, CT and ultrasound

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01874



A professional, multipurpose brain phantom. Anatomically correct, made based on the average human brain, built from realistic materials that mimic human tissues. Phantom is intended for ultrasonography diagnostic (USG), magnetic resonance (MRI) and tomography (CT) training.

Upon special request, the phantom features and the properties of the tissue mimicking materials can be customized based on the requirements of any particular project.

Standard version of phantom consists the following features / functions:

- geometry and dimensions of the average human brain
- realistic brain tissue
- tumor
- Brain ventricles
- Falx cerebri

Additional information:

- ideal for training imaging diagnostics for doctors, medical students, electroradiologists, radiology technicians
- the model is also **suitable for puncture** - the ability to assess the position of the needle. **ATTENTION! A needle puncture leaves a lasting trace in the phantom.**
- **It is possible to adjust the characteristics of the model for a given project.**
- **The possibility of adding contrast**

Adult Brain (Customizable)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02855



The brain phantoms are used for medical imaging (both static and flow) and for treatment planning for HIFU procedures. They can be also used for training medical students and practitioners. The design of this phantom is based on an average human male head and it is made out of several realistic tissues mimicking materials that are suitable for Ultrasound, MRI and CT applications.

Based on the requirements of your project, you can select any of the following features or a combination of them:

- Grey Matter Cerebrum
- White Matter Cerebrum
- Aneurysm/Stenosis feature
- Brain ventricles feature
- Epidural feature
- Tumor feature
- Bifurcation feature
- Blood vessels feature
- Foreign objects feature



Adult Brain - Training Simulation (Customizable)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02862



The phantom is designed based on an average brain and it is made out of realistic tissue mimicking materials suitable for both Ultrasound and MRI applications.

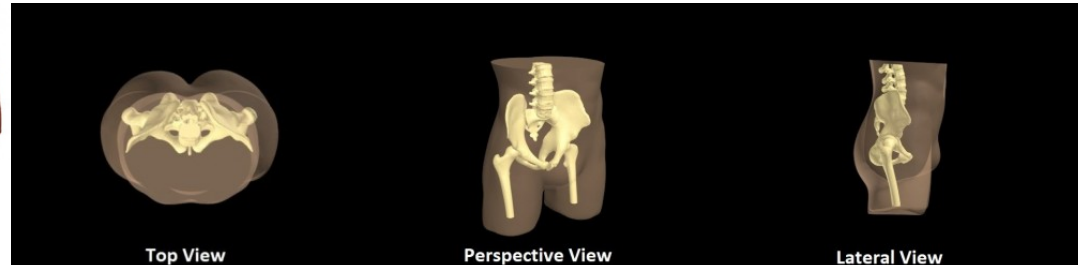
The Phantom has the following features:

- Geometry & dimensions of an average human brain
- White & Grey brain matter
- Brain ventricles
- Brain tumor
- Blood vessels with 2mm inner diameter and one bifurcation
- Falx Cerebri

Adult Pelvis Phantom

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02357



The Adult Pelvis Phantom is designed based on an average human anatomy and it is made out of realistic patented bone material that is suitable for CT and anthropomorphic applications. It can be used for medical imaging research, radiology training and testing and calibration of X-Ray machines.

The following anatomical structures are included:

- Lumbar sacral spine
- Pelvis bone with anatomically correct structures and shape
- Partial femoral bones
- Realistic soft tissue surrounding the bone

The bones have a realistic three-layered structure with inner porosity which can be adjusted according to the requirement of the particular project. The phantom can be customized in size and shape (i.e. based on the individual's CT scan).

Materials used:

- Soft tissue and organs: Composition of urethane base resin
- Synthetic bones: Patented ceramic-reinforced epoxy-based composite material

Dimensions and Weight:

Size: 85 x 32 x 32 cm (approx.) Weight: 40 kgs (approx.)

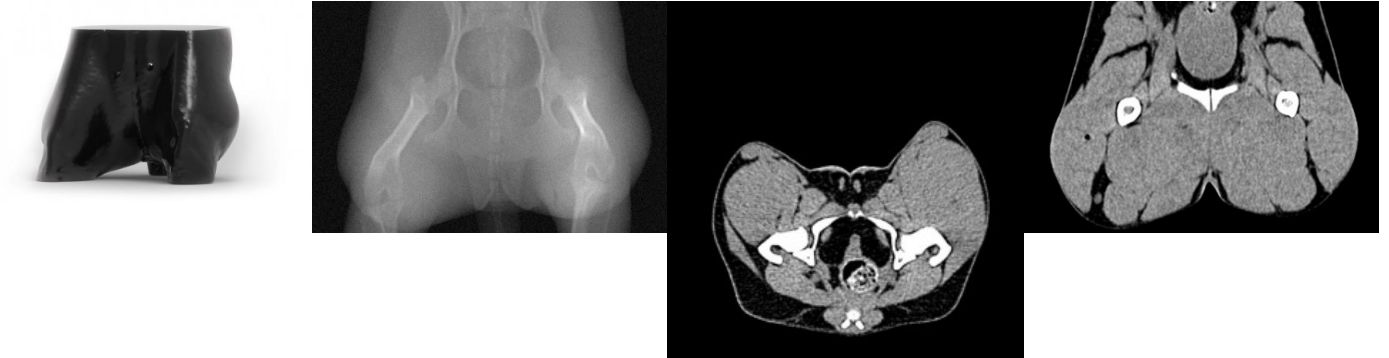
Your order will Include:

- Male Standard Pelvis
- Design video
- Manual
- Hard carry case (optional)

Dog pelvis phantom for CT and x-ray

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR03084



The phantom provides a realistic simulation of a dog pelvis with no contrast agent.

The advantages:

- Bones and soft tissue are displayed authentically with realistic CT values for all tissues at 120 kVp tube voltage in the CT.
- Air spaces are filled with a cellulose polymer composite with about -80 Hounsfield units.
- If the phantom is to be used primarily with other tube voltages (e.g. 100 kVp), the calibration of the CT values can be adjusted accordingly if required.
- The phantom also provides realistic tissue contrasts in X-ray imaging.

Sectional Mouse Phantom for X-RAY CT

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02847



Sectional Mouse Phantom for X-RAY CT and MRI is an anatomically correct phantom that is sliced into segments and is used for medical imaging research and development, testing and calibrating purposes.

The model shown on the images has the following internal structures:

- Full skeleton
- Heart
- Lungs
- Diaphragm
- Liver
- Kidneys
- Pancreas
- Spleen

The phantom can be customized in size and shape. The internal features can be also modified in terms of shape and properties to fit the needs of any particular bio-medical research project.

Simple Blood Vessel

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02881



Blood Vessels for R&D can be fabricated as a stand-alone phantom or a feature implemented to any location of the brain. They can be also simply submerged in a brain mimicking material used to fill the skull and/or head phantom. The vessels shown on the image are made out of our proprietary blood vessel mimicking material with realistic acoustical and MRI properties the inner diameters of the standard vessels are 2 and 3 mm.

Breast Phantom for Medical Imaging

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02848



Breast phantom for medical imaging is compatible with Ultrasound, X-RAY/CT, and MRI. It can be used as a training tool to study techniques of maneuvering ultrasound on a breast and mammography skill set. The product can also be used to research and calibrate medical imaging techniques and devices.

Includes:

- Anatomically and geometrically correct single breast (partial chest)
- Embedded inside a realistic body tissue-mimicking material compatible for Sonography and CT analysis
- Partial Ribs
- Major Fat tissues
- Major Muscles
- Axillary lymph nodes
- Subcutaneous adipose,
- Retromammary adipose
- Mammary glands
- Tumor/Cysts (quantity up to 5)

Dog Phantom - Research

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02845



The newly designed detachable dog phantom is a training simulator, independent of external hardware/software. The phantom is compatible with Ultrasound, X-RAY/CT, and MR imaging. It has all the right features to be an ideal teaching tool for sonographers, radiographers, veterinary residents, and other vet professionals. Unlike its predecessor, the new detachable dog phantom has improved anatomical structures and removable body parts(head, limbs, torso, and tail). This improvement is an added advantage as it helps perform various positioning techniques under the US, X-RAY/CT, and MR imaging modalities. This product is available in the following options:

- Dog Phantom for Ultrasound and X-RAY/CT imaging | SKU: DG-A01
- Dog phantom for X-RAY/CT and MR imaging | SKU: DG-A02
- Dog phantom for Research & Development applications | SKU: DG- R01

Body Parts and Anatomical structures:

- Head: skull, realistic brain tissue.
- Torso: complete spine, chest, shoulder (scapula), pelvis, heart, blood vessels related to the heart, lungs, stomach, liver and gallbladder, kidneys, spleen, pancreas, bladder, ureters and uterus, large and small intestine
- Front feet: shoulder, elbows, forearm (radius, elbow, paw, material imitating leather
- Hind feet: thigh (femoral joint), knee joint, lower leg (tibia, fibula joint), paw, material imitating leather
- Tail: tail bones

Optional features, upon request:

- Internal hemorrhages at bilateral chambers, pelvic area, pericardial area, perisplenic areas, etc.
- Lesions and tumors at precise locations.
- Customizing the phantom with motion or bleeding.

*This model includes life-size abdominal organs & bony structures. If needed, it can be customized with a beating heart and breathing lungs to simulate dynamic respiratory motion with the help of mechanical pumps(optional). As a reference, you can watch this video captured from an R&D experiment conducted on our other product. Dimensions and Weight: Size: 116 x 66 x 43 cm (approx.) Weight: 18 kgs (approx.) Includes:

- Adult Female Dog
- Design video
- User Manual with assembly instructions
- Hard carry and storage case (Optional)

Dog Phantom for X-Ray, CT oraz MRI

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01928



The newly designed detachable dog phantom is a training simulator, independent of external hardware/software. The phantom is compatible with Ultrasound, X-RAY/CT, and MR imaging. It has all the right features to be an ideal teaching tool for sonographers, radiographers, veterinary residents, and other vet professionals.

Unlike its predecessor, the new detachable dog phantom has improved anatomical structures and removable body parts(head, limbs, torso, and tail). This improvement is an added advantage as it helps perform various positioning techniques under the US, X-RAY/CT, and MR imaging modalities. This product is available in the following options:

- Dog Phantom for Ultrasound and X-RAY/CT imaging | SKU: DG-A01
- Dog phantom for X-RAY/CT and MR imaging | SKU: DG-A02
- Dog phantom for Research & Development applications | SKU: DG- R01

Body Parts and Anatomical structures:

Adult Dog Head for X-RAY CT and MRI training - 1 Unit

- Anatomically correct realistic skull phantom with the jaw bone
- Realistic brain tissue

Adult Dog Torso for X-RAY CT and MRI training - 1 Unit

 Bones included:

- Complete Spine
- Complete Ribcage
- Shoulder (Scapula bones)
- Pelvis

Thoracic organs included:

- Anatomically correct Heart
- Realistic blood vessel structure connected with the heart
- Lungs
- Diaphragm

Major abdominal organs included:

- Stomach
- Liver and gallbladder
- Kidneys
- Spleen
- Pancreas
- Fine arteries for kidneys



- Bladder
- Ureters and Uterine
- Large & small intestines

Adult Dog Front Arms for X-RAY CT and MRI training - 2 Units

- Arm (Humerus)
- Elbow joints
- Forearm (Radius, Ulna)
- Paw (wrist with fingers)
- Acoustically correct skin-mimicking material surrounding the leg

Adult Dog Rear Legs for X-RAY CT and MRI training - 2 Units

- Thigh (Femur)
- Knee joints
- Leg (Tibia, Fibula)
- Paw (Finger bones)
- Acoustically correct skin-mimicking material surrounding the leg

Adult Dog Tail for X-RAY CT and MRI training - 1 Unit

- Anatomically correct realistic tail bones
- Realistic tissue mimicking material

Optional features, upon request:

- Internal hemorrhages at bilateral chambers, pelvic area, pericardial area, perisplenic areas, etc.
- Lesions and tumors at precise locations.
- Customizing the phantom with motion or bleeding.

*This model includes life-size abdominal organs & bony structures. If needed, it can be customized with a beating heart and breathing lungs to simulate dynamic respiratory motion with the help of mechanical pumps(optional). As a reference, you can watch this video captured from an R&D experiment conducted on our other product, Adult Human Torso phantom for X-RAY/CT and MR imaging. Materials used:

- Soft tissue and organs
- Composition of Urethane base resin
- Synthetic bones are available in two options: composition of Urethane base plastic, patented ceramic-reinforced epoxy-based composite material

Dimensions and Weight: Size: 116 x 66 x 43 cm (approx.) Weight: 18 kgs (approx.) Includes:

- Adult Female Dog
- Design video
- User Manual with assembly instructions
- Hard carry and storage case (Optional)

Dog Phantom for ultrasonography (USG)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: AM01926



The newly designed detachable dog phantom is a training simulator, independent of external hardware/software. The phantom is compatible with Ultrasound, and X-RAY/CT. It has all the right features to be an ideal teaching tool for sonographers, radiographers, veterinary residents, and other vet professionals. Unlike its predecessor, the new detachable dog phantom has improved anatomical structures and removable body parts(head, limbs, torso, and tail). This improvement is an added advantage as it helps perform various positioning techniques under the US, X-RAY/CT, and MR imaging modalities. This product is available in the following options:

- Dog Phantom for Ultrasound and X-RAY/CT imaging
- Dog phantom for X-RAY/CT and MR imaging
- Dog phantom for Research & Development applications

Body Parts and Anatomical structures: **Head:** skull, realistic brain tissue. **Torso:** complete spine, chest, shoulder (scapula), pelvis, heart, blood vessels related to the heart, lungs, stomach, liver and gallbladder, kidneys, spleen, pancreas, bladder, ureters and uterus, large and small intestine **Front feet:** shoulder, elbows, forearm (radius, elbow, paw, material imitating leather **Hind feet:** thigh (femoral joint), knee joint, lower leg (tibia, fibula joint), paw, material imitating leather **Tail:** tail bones **Optional features, upon request:**

- Internal hemorrhages at bilateral chambers, pelvic area, pericardial area, perisplenic areas, etc.
- Lesions and tumors at precise locations.
- Customizing the phantom with motion or bleeding.

*This model includes life-size abdominal organs & bony structures. If needed, it can be customized with a beating heart and breathing lungs to simulate dynamic respiratory motion with the help of mechanical pumps(optional). As a reference, you can watch this video captured from an R&D experiment conducted on our other product. Dimensions and Weight: Size: 116 x 66 x 43 cm (approx.) Weight: 18 kgs (approx.) Includes:

- Adult Female Dog
- Design video
- User Manual with assembly instructions
- Hard carry and storage case (Optional)

Pediatric Full Human Body Phantom for X-Ray CT & MRI Training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02844



4-Year old Pediatric Full Body Phantom is an X-RAY CT and MR compatible training product. It is primarily used to train various patient positioning techniques. Often purchased by medical schools & teaching hospitals to train their radiology students & other medical professionals. The design of this phantom is based on the model of a 4-year-old child of 40" (102 cm) in height. This phantom is a life-size, full-body anthropomorphic phantom with anatomically correct organs and bones constituted in 10 body parts. The phantom weighs about 20 kg. Other uses include visual evaluation in finding out optimal scanning conditions.

The Phantom consists of the following features:

- Anatomically correct full-body divided into 10 parts as explained below.
- Realistic body tissue-mimicking material, compatible with CT & MR imaging.
- Useful to train/perform several patient positioning techniques under radiology.
- Shoulders can be rotated 360 degrees round ways and 180 degrees sideways.
- Movable Hip joints, knees, and elbows at respective degrees.
- Detachable Head, Torso & limbs.
- The bones have a realistic three-layered structure with inner porosity which can be adjusted according to the requirement of the particular project.
- Customizable with different pathologies(lesion, tumor, infection, abnormality) upon request.
- The phantom can be ordered in a transparent or skin-colored version.
- Head: Has an anatomically correct skull, brain tissue, gray matter and cervical spine.
- Upper limb: elbow joint, forearm (elbow and radius), hand (wrist and fingers), realistically simulating the skin material surrounding the arm.
- Lower limb: thigh (femur), knee joint, shank (tibia and fibula), foot (toe bones), realistic, properly imitating leather material.
- Torso: spine, chest, collarbone, scapula, pelvis.
- Internal organs: trachea, bronchi, heart, lungs with pulmonary vessels, stomach, liver, kidneys, spleen, pancreas, bladder, gallbladder, large and small intestines.

Additional information:

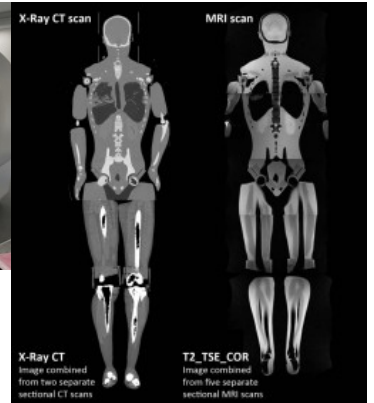


- Height: 102cm (approx)
- Weight: 20 kg (approx)
- Whole body divided into 10 parts
- Video project
- Coursebook
- Transport case

Adult Full Human Body Phantom(With Muscles) for X-Ray CT & MRI Training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02849



full-form radiological phantom of an adult is a training product compatible with X-ray, CT and MR. It consists of a total of 10 parts. Designed to train various patient positioning techniques. It is popular among Medical Universities, Medical Schools and Clinical Hospitals to effectively train its radiology students and doctors. Other uses include several educational applications as well as visual assessment for optimal scanning conditions. The model of this phantom is based on the full body of an adult male that weighs approximately 70 kg and is 175 cm tall. Due to its complex anatomy and realistic appearance, imaging outperforms other similar products on the market that offer similar functions and applications.

General description:

- Anatomically correct whole body divided into 10 parts.
- The lower and upper limbs have muscles in their structure.
- Realistic material imitating body tissues, compatible with CT and MR imaging.
- Useful for training / performing several patient positioning techniques in radiology.
- Full mobility in the joints: the arms can be rotated 360 degrees around the axis and moved 180 degrees.
- Movable hip joints, knees and elbows (full range of motion).
- Detachable head, torso and limbs..
- The bones have a realistic three-layer structure with internal porosity that can be adjusted according to the requirements of a particular project.
- Adaptable to various pathologies (lesions, tumors, infections, bleeding, other abnormalities) upon request.
- The phantom can be ordered in a transparent (transparent) or leather-colored version.
- Head: has an anatomically correct skull, realistic brain, gray and white matter, cervical spine, frontal sinuses, realistic air cavities in the phantom, Acoustically correct material imitating skin.
- Upper limbs: all bones can be imaged - collarbone, scapula, humerus, ulna, radius, hand bones, Acoustically correct material imitating skin.
- Lower limbs: all imaging bones - femur, tibia, fibula, tarsus, metatarsus, phalanges of the foot, Acoustically correct material imitating skin.
- Remaining bones: ribs, spine, pelvis.
- Organs and organs: trachea, heart, aorta, abdominal aorta, common iliac artery, external and internal iliac artery, renal arteries, lungs, liver arteries, liver, kidneys, large and small intestine, bladder.

Additional information:

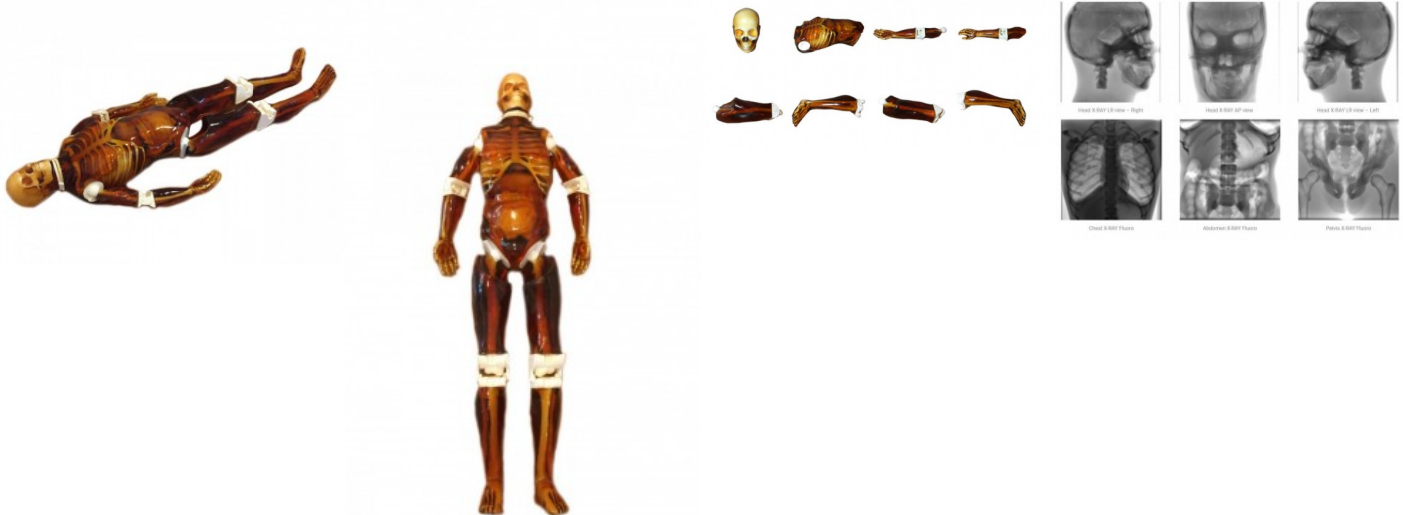


- Length about 175cm
- Weight: approx. 70 kg
- Transport case
- Set includes: full-body manakin (10 pieces), instructions, presentation video, protective case

Wholehuman Body Phantom for X-Ray CT and MRI Training (adult)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02631



The full-form radiological phantom of an adult is a training product compatible with X-ray, CT and MR. It consists of a total of 10 parts. Designed to train various patient positioning techniques. It is popular among Medical Universities, Medical Schools and Clinical Hospitals to effectively train its radiology students and doctors. Other uses include several educational applications as well as visual assessment for optimal scanning conditions. The model of this phantom is based on the full body of an adult male that weighs approximately 70 kg and is 175 cm tall. Due to its complex anatomy and realistic appearance, imaging outperforms other similar products on the market that offer similar functions and applications.

General description:

- Anatomically correct whole body divided into 10 parts
- Realistic material imitating body tissues, compatible with CT and MR imaging.
- Useful for training / performing several patient positioning techniques in radiology.
- Full mobility in the joints: the arms can be rotated 360 degrees around the axis and moved 180 degrees.
- Movable hip joints, knees and elbows (full range of motion)
- Detachable head, torso and limbs.
- The bones have a realistic three-layer structure with internal porosity that can be adjusted according to the requirements of a particular project.
- Adaptable to various pathologies (lesions, tumors, infections, bleeding, other abnormalities) upon request.
- The phantom can be ordered in a transparent (transparent) or leather-colored version.
- Head: has an anatomically correct skull, realistic brain, gray and white matter, cervical spine, frontal sinuses, realistic air cavities in the phantom, Acoustically correct material imitating skin
- Upper limbs: all bones can be imaged - collarbone, scapula, humerus, ulna, radius, hand bones, Acoustically correct material imitating skin
- Lower limbs: all imaging bones - femur, tibia, fibula, tarsus, metatarsus, phalanges of the foot, Acoustically correct material imitating skin
- Remaining bones: ribs, spine, pelvis
- Organs and organs: trachea, heart, aorta, abdominal aorta, common iliac artery, external and internal iliac artery, renal arteries, lungs, liver arteries, liver, kidneys, large and small intestine, bladder

Additional information:



- Length about 175cm
- Weight: approx. 70 kg
- Transport case
- Set includes: full-body manakin (10 pieces), instructions, presentation video, protective case

Bifurcation

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02883



Bifurcation for R&D is a feature that can be implemented to any location of the brain/blood vessels or simply submerged in a brain mimicking material used to fill the skull or head phantom.

The features shown on the image is made out of our proprietary blood vessel mimicking material with realistic acoustical and MRI properties.

Heart Phantom Package

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02863



This package comes with Adult Heart (Transparent) and Adult Heart (Red).

Complex Blood Vessel

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02882



Complex Blood Vessels for R&D is a feature that can be implemented to any location of the brain or simply submerged in a brain mimicking material used to fill the skull or head phantom. The vessel network shown on the image is made out of our proprietary blood vessel mimicking material with realistic acoustical and MRI properties.

Skin Feature

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02868

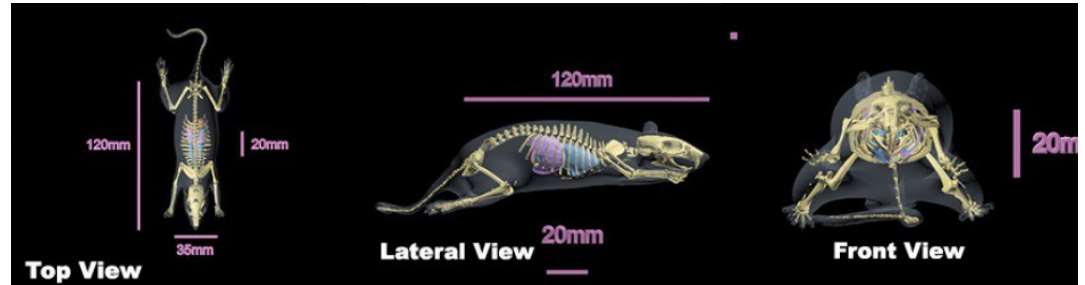


Head skin is designed based on average anatomy of an adult human head. It is made from realistic tissue mimicking material suitable for **Ultrasound, MRI and CT** applications. The skin can be implemented on top of the skull or brain based on the requirements of any research project.

Rat Phantom (Anatomical)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: SM01845



Rat Phantom for R&D is an anatomically correct phantom of a mouse (rat) suitable for either X-Ray/Ultrasound/MRI imaging methods and it can be customized to excel in a selected imaging modality. It is a powerful tool that can be used for testing and calibration of various medical imaging devices.

Includes:

- Full skeleton
- Heart
- Lungs
- Diaphragm
- Liver
- Kidneys
- Pancreas
- Spleen

The phantom can be customised in size and shape.

Comes with:

- Detailed user manual
- Protective carry case

Rat Phantom (Cylindrical)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02846



Rat Phantom Cylindrical For R&D can be fabricated either as a simple cylinder or as an anatomically correct mouse (rat). Both phantoms are powerful tools that can be used for testing and calibration of various medical imaging devices.

The cylindrical version has **27mm diameter and 70mm** height which correspond to the dimensions of small animals (i.e. a laboratory mouse.) The small phantom is ultrasound, MRI and CT compatible and it can be customized in size and shape. The internal features can be also modified in terms of shape and properties to fit the needs of any particular bio-medical research project.

Aneurysm

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02880



Aneurysm for R&D is an example of a feature that can be implemented to any location in the brain and/or blood vessels. The features shown on the image is made out of our proprietary blood vessel mimicking material with realistic acoustical and MRI properties.

Adult Human Torso for X-Ray CT & MRI Training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02852



This phantom is based off an average human anatomy and is made out of realistic patented bone material that is suitable for X-Ray/CT & MRI applications. It can be used for medical imaging research, radiology training, and can also be served as a customized tool for equipment testing and calibration.

The following anatomical structures are included in the phantom: 1. Bones included:

- Complete Spine
- Complete Ribcage
- Pelvis
- Femur

2. Thoracic organs included:

- Trachea
- Anatomically correct Heart
- Lungs

3. Major abdominal organs included:

- Stomach
- Liver
- Kidneys
- Bladder
- Large & small intestines

Additional informations:

- The bones have a realistic three-layered structure with inner porosity which can be adjusted 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. This phantom can also be customized as a training simulator to train medical students on COVID-19 related diagnostic procedures.
- Upon request, this phantom can also be customized in size & shape (i.e. based on the individual's CT scan).
- The phantom can be ordered in transparent or skin coloured version.
- Size: 85 x 46 x 26 cm(approx.) Weight: 40 Kgs (approx.).
- Design video
- Manual



- Hard carry case (optional)

Adult Human Torso For X-Ray CT & MRI Training (Skeletal)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02853



The Phantom is designed based on average human anatomy and it is made out of realistic patented bone material that is suitable for CT & MR applications. It can be used for medical imaging research, radiology training and testing and calibration of X-Ray & MR machines.

Includes:

- Lungs
- Complete Spine
- Complete Ribcage
- Pelvis
- Femur

Additional information:

- The bones have a realistic three-layered structure with inner porosity which can be adjusted according to the requirement of the particular project.
- The phantom can be customized in size and shape (i.e. based on the individual's CT scan).
- Size: 85 x 46 x 26 cm(approx.) Weight: 40 Kgs (approx.).

Your order will include:

- Male Standard Torso
- Design video
- Manual
- Hard carry case (optional)

Torsophantom for emergency ultrasonography + FAST protocol (transparent)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01871



Full-size, realistic phantom torso of an adult human. It has the ability to imaging all organs. It was developed in order to provide high quality simulated ultrasound diagnostic training, especially for FAST training (fast ultrasound performed in the case of multi-organ trauma) / FAMUS in emergency patients who had an abdominal or chest injury.

Main features:

1. Anatomically correct structure and size Realistic material imitating body tissue: transparent version
 - Realistic bones for ultrasound imaging: anatomically correct chest, anatomically correct spine, anatomically correct pelvis
 - Anatomically correct heart phantom: Aorta, vena cava, 2 atria, 2 chambers, 4 valves
 - Realistic esophagus
 - Realistic liver, kidneys and lungs
 - Realistic: Large and thin intestine, bladder, stomach, diaphragm, spleen and pancreas
2. FAST protocol (rapid ultrasound examination in the case of multi-organ injuries): detection of internal bleeding in the areas of the liver, spleen, pelvis and pericardium
3. emergency ultrasound: pericardial haemorrhage, intraabdominal hemorrhage in the liver, spleen and bladder.
4. Other pathologies that allow us to diagnose this phantom under ultrasound guidance: cholecystitis, aortic aneurysm, scarring on the colon.

Additional information:

- delivered in a protective case
- warranty 2 years instruction
- dimensions: 120x45x65
- weight: approx. 45kg possibility to adjust the phantom to the needs of a given project. Please send a description / specification for quotation. Phantom can be adapted to various pathologies as well as to specific training applications

Optional:

- tumors in strictly defined places

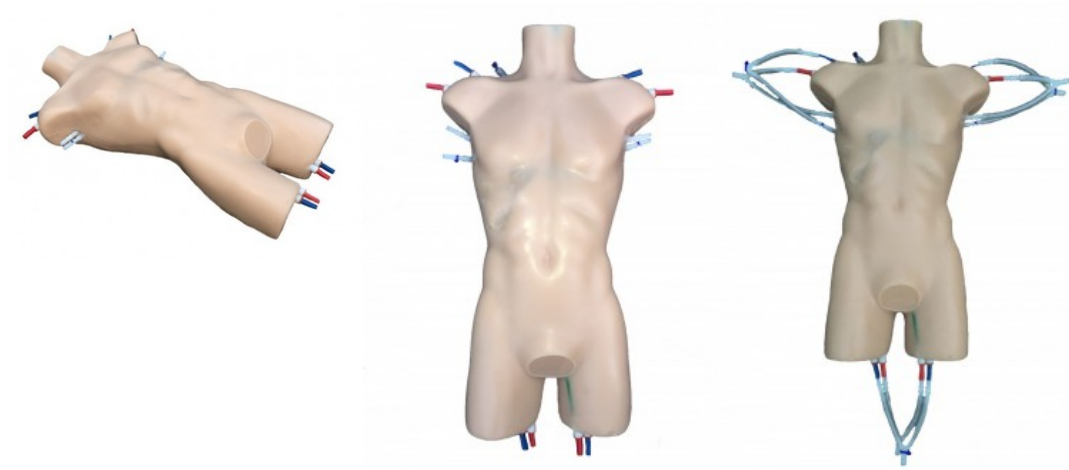


- adjusting the phantom to a specific type of bleeding
- the ability to adjust the phantom to CT and MRI diagnostics.
- other

Adult Human Torso - Advanced R&D

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02857



“Adult Human Torso - Advanced R&D” is a lifelike phantom/simulator, anatomically correct, from neck to pelvic area with all the essential organs present inside. This phantom can be made compatible with Ultrasound, X-RAY CT, and MRI. It is an ideal tool for conducting medical research under the guidance of medical imaging. The organs, bones, and body tissue mimics closely that of an adult human body.

- It can be customized to be compatible with Ultrasound, X-RAY CT, and MRI.
- Appearance can be customized to mimic skin color or transparent/see-through.

You can select anatomically correct & realistic organs(soft tissues and bones) for carrying out your project-based research and development. Anatomy Included:

- Bones: rib cage, spine, pelvis bone
- Soft Tissues: heart phantom, realistic liver, kidney, lungs, large & small Intestines, bladder, stomach, diaphragm, spleen, pancreas, psoas major muscles

(These organs can be modified, added, or removed to suit the precise need of your application). Features Included:

- Beating heart with access to intravenous catheter insertion
- Beating heart model with the cyclic motion of the heart walls
- Average heart rate (70 BPM)
- Adjustable heart rate (0 BPM - 140 BPM)
- Chambers fillable with water without air pockets
- Asymmetrical heart motion between left and right chambers
- Customization around Heart: Aortic aneurysm extended below the heart
- Hemorrhages in the liver, pericardium, and urinary bladder
- Tumors: bile duct obstructing the bile outflow, left renal tumor, and anal tumor
- Enlarged axillary lymph nodes on one side and normal on the other
- Customized Colon polyps inside intestines
- Size: 85 x 46 x 26 cm(approx.) Weight: 40 Kgs (approx.).

Your order will Include:

- Adult male Torso - Advanced for R&D
- Heart pump and accessories

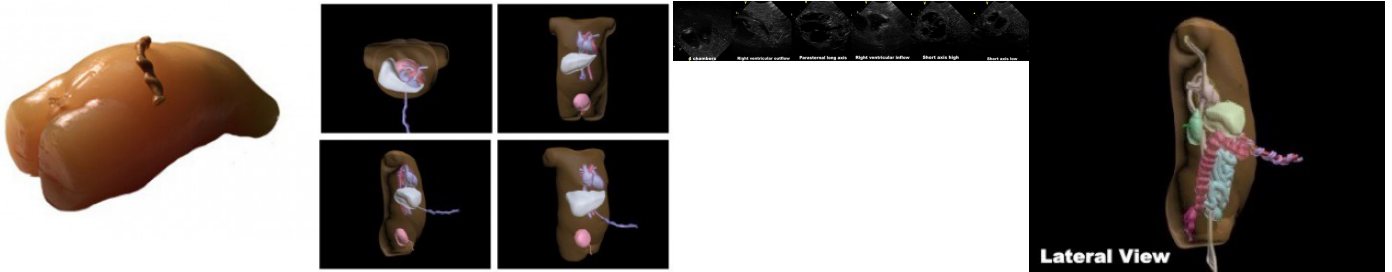


- User Manual
- Hard carry case (optional)

Newborn Torso Phantom for Ultrasound Training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01922



Anatomically correct torso of the baby. It has been designed based on the average anatomy of a 40-week-old child and is made of realistic tissue-mimics that are suitable for ultrasonic imaging. It can be used for medical imaging and training purposes.

This phantom enables training:

- skills required when placing the catheter through the umbilical cord into the right atrium under ultrasound guidance
- skills necessary to identify and catheter the full and empty bladder under ultrasound guidance

Includes:

- Heart
- Liver
- Kidneys
- Stomach
- Small and Big Intestine
- Water Fillable Bladder
- Umbilical cord
- Realistic Body Tissue

Comes with:

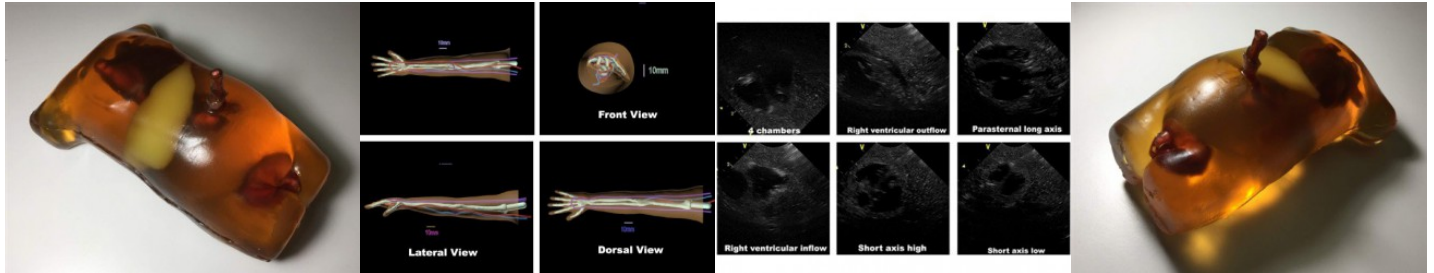
- Detailed user manual
- Protective carry case

The specification of the model can be adapted to specific requirements!

Newborn Torso Phantom for Ultrasound Training, transparent

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: SM01844



Anatomically correct torso of the baby. It has been designed based on the average anatomy of a 40-week-old child and is made of realistic tissue-mimics that are suitable for ultrasonic imaging. It can be used for medical imaging and training purposes.

This phantom enables training:

- skills required when placing the catheter through the umbilical cord into the right atrium under ultrasound guidance
- skills necessary to identify and catheter the full and empty bladder under ultrasound guidance

Includes:

- Heart
- Liver
- Kidneys
- Stomach
- Small and Big Intestine
- Water Fillable Bladder
- Umbilical cord
- Realistic Body Tissue

Comes with:

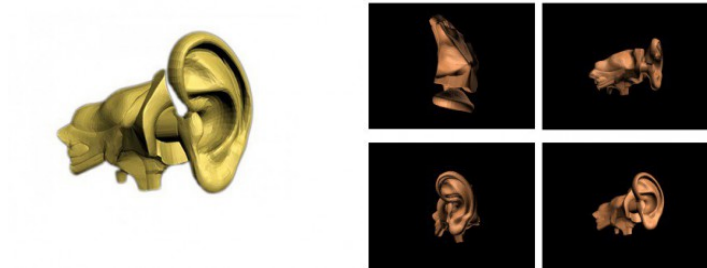
- Detailed user manual
- Protective carry case

The specification of the model can be adapted to specific requirements!

Ear phantom for calibration equipment for noise reduction

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01897



Detailed phantom about the precise anatomy of the human ear.

Application and advantages:

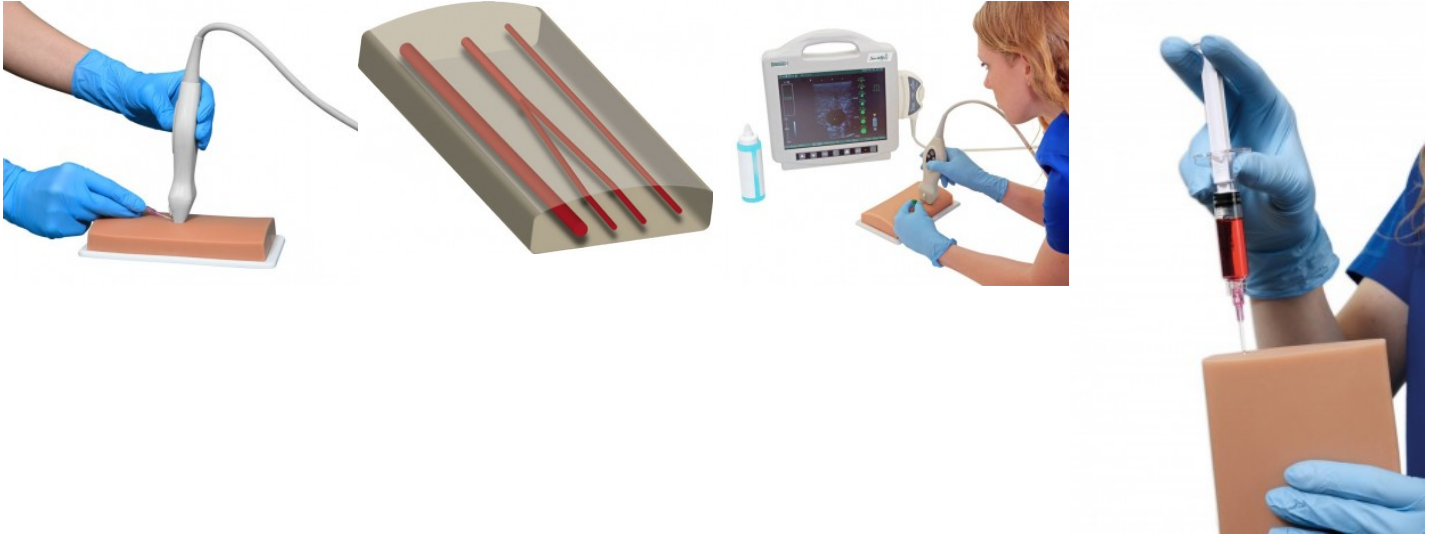
- Managing and developing the production of equipment for noise reduction.
- It can be made as a stand-alone product or implemented into a full skull and / or head.
- The ability to adjust the phantom specification to the needs of a given project



Vascular Access Ultrasound Phantom

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR03476

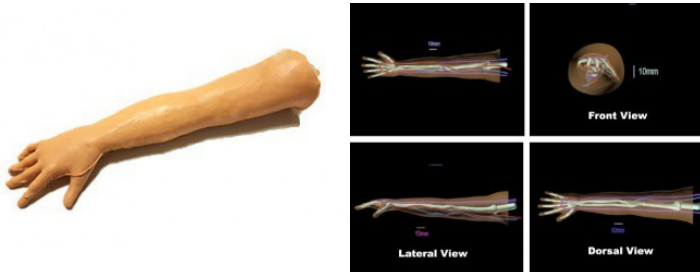


The Vascular Access Ultrasound Phantom is an excellent training phantom for the introduction and improvement of the techniques and psychomotor skills associated with successful ultrasound-guided vascular accessing. The unique material is flesh colored with the tactile feel and puncture resistance of human tissue. The very durable phantom material can be accessed 1,000s of times, is self-healing and can be refilled with the supplied stain resistant simulated blood. There is no need for special handling or refrigeration of the phantom.

Ultrasound phantom - Newborn Arm

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01908



The multiurpose phantom of the newborn's forearm with the possibility of IV perform under ultrasound guidance. Anatomically correct, highly realistic, it can be used for ultrasound training of intravenous injections for nurses and doctors.

Main advantages:

- made of durable materials
- the blood vessels are filled with ultra-soft material similar to rubber, so the phantom will never leak or require an additional blood-mimicking liquid.
- designed to learn about placing needles under ultrasound guidance without having to take blood.

Fantom has the following functions:

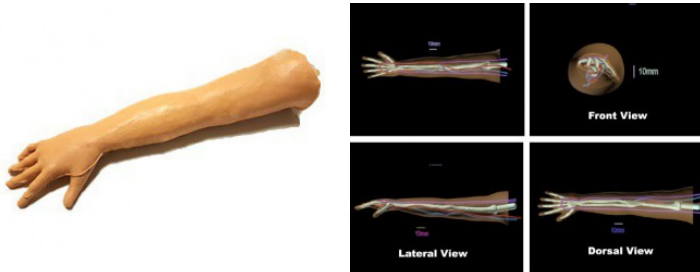
- Upper limb of the newborn baby - forearm palm, proximal arm fragment
- Realistic leather, very high quality
- Anatomically correct blood vessels
- Compatible with ultrasonic imaging
- Injectable

It is possible to adjust the phantom function to the needs of a given project. For pricing, please send us your specifications.

Ultrasound phantom - Newborn Arm

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01923



The multiurpose phantom of the newborn's forearm with the possibility of IV perform under ultrasound guidance. Anatomically correct, highly realistic, it can be used for ultrasound training of intravenous injections for nurses and doctors.

Main advantages:

- made of durable materials
- the blood vessels are filled with ultra-soft material similar to rubber, so the phantom will never leak or require an additional blood-mimicking liquid.
- designed to learn about placing needles under ultrasound guidance without having to take blood.

Fantom has the following functions:

- Upper limb of the newborn baby - forearm palm, proximal arm fragment
- Realistic leather, very high quality
- Anatomically correct blood vessels
- Compatible with ultrasonic imaging
- Injectable

It is possible to adjust the phantom function to the needs of a given project. For pricing, please send us your specifications.

USG phantom of torso for ultrasonography, basic version, transparent

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01904



Full-size torophantom of an adult man. Realistic, anatomically correct. It has the ability to imaging all organs. It has been developed to provide high quality simulated ultrasound diagnostic training.

Main features:

- Realistic material imitating body tissue: transparent
- Realistic bones for ultrasound imaging: anatomically correct chest, anatomically correct spine, anatomically correct pelvis
- Anatomically correct heart phantom: Aorta, vena cava, 2 atria, 2 chambers, 4 valves
- Realistic esophagus
- Realistic liver, kidneys and lungs
- Realistic: Large and thin intestine, bladder, stomach, diaphragm, spleen and pancreas

Optional (the possibility of extending the torso with the following parameters):

1. FAST protocol (rapid ultrasound examination performed in the case of multi-organ injuries): detection of internal krotoki in the areas of the liver, spleen, pelvis and pericardium
2. Emergency ultrasound: pericardial haemorrhage, intraabdominal hemorrhage in the liver, spleen and bladder.
3. Other pathologies:
 - cholecystitis,
 - aortic aneurysm,
 - scarring on the colon
 - duodenal ulcer
 - polyps in the colon
 - tumors in strictly defined places enlarged lymph nodes
 - polyps of the anus and large intestine
 - adjusting the phantom to a specific type of bleeding



- the ability to adjust the phantom to CT and MRI diagnostics.
- other

4. Organs, e.g. the prostate gland

Additional information:

- delivered in a protective case
- warranty 2 years
- instruction
- dimensions: 120x65x45
- Weight: approx. 45kg
- possibility to adjust the phantom to the needs of a given project. Please send a description / specification for quotation. Phantom can be adapted to various pathologies as well as to specific training applications

Tumor

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02869



Tumor for R&D is a perfect example of a feature that can be implemented to any location of the brain or simply submerged in a brain mimicking material used to fill the skull or head phantom. The features shown on the images are made out of homogenous tissue-mimicking material with realistic acoustical and MRI properties.

White Matter

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02871



White Matter is designed based on average brain anatomy and it is made out of realistic tissue mimicking materials suitable for both **Ultrasound and MRI** applications. The feature can be incorporated into the brain phantom or simply submerged in a brain mimicking material used to fill the skull or head. *Upon special request, the geometry and dimensions of feature and its properties can be customized based on the requirements of any particular project.

Brain Ventricles

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02870



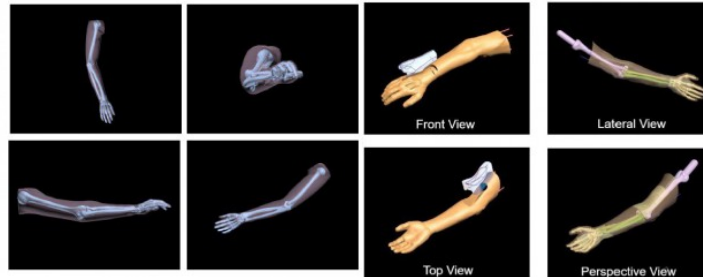
Brain Ventricles for R&D are designed based on an average anatomy of human brain ventricles and they are fabricated using a novel 3D printing technology.

They can be implemented in the phantom in two versions: 1) As an empty cavity fillable with water to mimic cerebrospinal fluid and change of pressure inside of the brain. 2) As a feature made out of water-like material suitable for imaging purposes only. *Upon special request, the size and geometry of the feature and the properties of the used tissue-mimicking materials can be customized based on the requirements of any particular project.

Adult Arm Phantom for X-Ray Training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01924



ADULT ARM PHANTOM PROPERTIES					
Type of the tissue	Sound velocity [m/s]	Density [kg/cm³]	Hardness [Shore D]	13 [mm]	Specimen
Contact us for the properties					
THERMAL PROPERTIES OF OUR ARM PHANTOM MATERIAL					
Thermal Conductivity	Thermal Expansion Coefficient	Thermal Diffusivity	Thermal Resistance	Specific Heat	Speed of Sound
0.770 W/m·K	1.800 1/K	0.770 1/s	1.000 1/s	0.770 J/kg·K	3000 m/s

Anatomically correct, highly realistic phantom of the upper limb (from mid-arm to hand) with complete bones that can be used for X-ray imaging.

Main features:

- the ability to take X-ray images of the entire upper limb (from mid-arm to hand)
- the model contains artificial bones made of realistic, patented material that mimics real tissue.
- The x-ray phantom is ideal for medical students, electroradiologists but also for radiology technicians, because it gives the possibility of multiple imaging without side effects for the patient's body or operator.
- Bones are embedded in realistic tissue mimics that can be transparent or opaque.
- X-ray models can vary in size and shape due to production technology

Additional information:

- There is a possibility to adjust the phantom of the upper limb to the needs of a given project, including placing fractures, cracks, prostheses, etc.
- In order to make a phantom suited to the requirements of a given project, please send the specification.

Hematoma

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02873

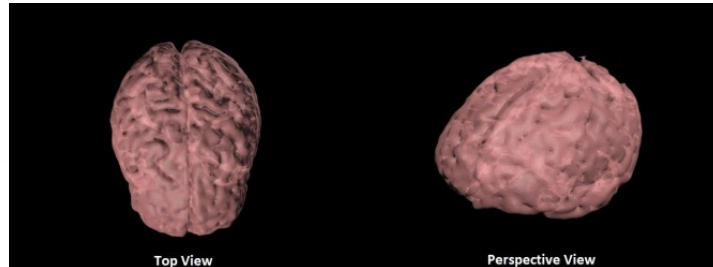
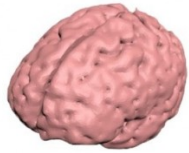


Hematoma for R&D or Epidural aneurysm is an example of a feature that could be implemented to the head or brain phantom at any location. The feature is made out of realistic tissue mimicking material suitable for Ultrasound, MRI and CT applications and it is fillable with water or most blood mimicking fluids.

Brain Parenchyma

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02876



The brain structure is created based on an average anatomy and dimensions of an adult brain. The parenchyma is made out of a homogeneous material with customizable composition to suit the need of various biomedical projects.

*The size, dimensions and shape can be fully customized based on the needs of your project.

Standard Calvaria

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02878



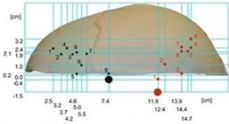
Standard Calvaria Phantom can be used for medical imaging research and treatment planning of non-invasive HIFU brain surgeries. The design of this phantom is based on an average human male skull and it is made out of realistic patented bone material that is suitable for Ultrasound, MRI and CT applications (any other part of the skull can be fabricated based on the customer order).

The phantom has a realistic three-layered structure and the inner porosity can be adjusted according to the requirement of the particular project.

Foreign Objects

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02884



Foreign Objects for R&D Various foreign object can be incorporated within the skull directly in to the brain tissue or to any other location of the phantom. The objects can mimic different materials such as bullets, shrapnel and pieces of bones.

Temporal Bone Phantom

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02879



Temporal bones of the head phantom are small phantoms with a three-layered bone structure similar like an actual skull bone (cortical bone on top and bottom and diploe in the middle). Upon request, we can adjust the porosity and thickness of the diploe layer and by doing so we can adjust the ultrasonic attenuation of the phantom. The design of this phantom is based on an average temporal bone of a male skull and it is made out of realistic patented bone material that is suitable for Ultrasound, MRI and CT applications (any other part of the skull can be fabricated based on the customer order). The phantom has a realistic three-layered structure and the inner porosity can be adjusted according to the requirement of the particular project.

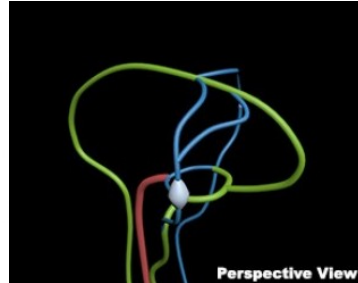
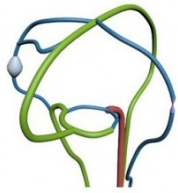
TEMPORAL BONE PHANTOMS:

- Realistic for Ultrasound, MRI and CT
- Realistic thickness, spatial variation and ratio of diploe
- Size and dimensions corresponding to the temporal window (approx. 8×8 cm)
- Various porosity (attenuation): approx. 30, 45, 60 dB/cm @2.25 MHz
- Various thickness (2.2mm, 4.0mm, 7.0mm)

Brain Vessels

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02874



Brain blood vessel feature is designed based on the arterial brain vessels and it is made out of realistic tissue mimicking material suitable for **Ultrasound, MRI and CT** applications.

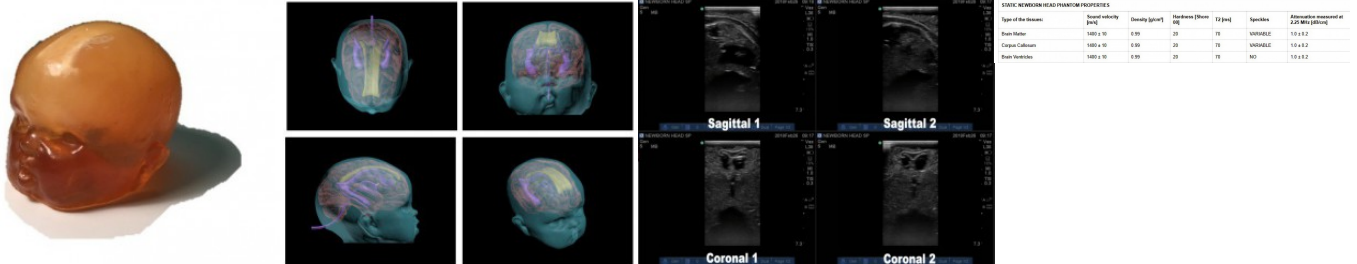
The feature consists of the following components:

- Circle of Willis
- One bifurcation
- One stenosis
- Two aneurysms
- Connecting vessels with the neck
- Plastic connectors

Simple Newborn head phantom for ultrasonography training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01901



Anatomically correct phantom of a newborn's head. It was designed based on the average head of a newborn baby. Made of realistic tissue mimics, suitable for ultrasound maging.

The phantom consists of following components:

- Realistic Brain
- Falx
- Brain Ventricles

Additional information:

- It is possible to adapt the head model of a newborn to the needs of a given project.
- For the purposes of the quote, please send the specifications in the inquiry.

Adult heart (red)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02356



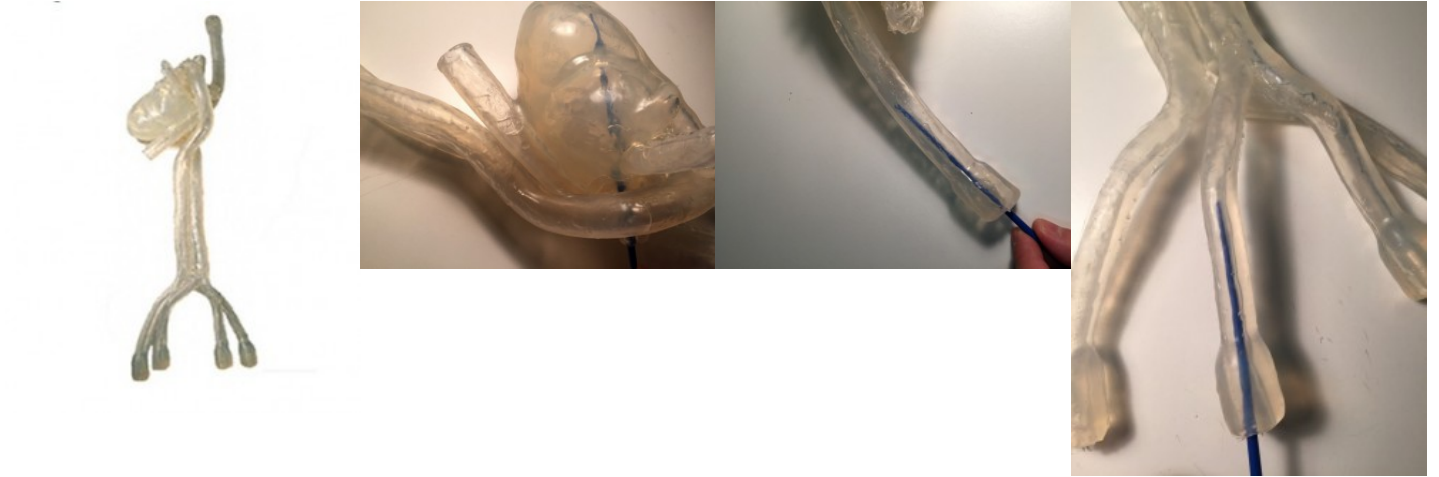
Adult heart for multipurpose is a realistic artificial human heart that is majorly used by hospitals, researchers and medical schools for research & development as well as to train medical students and residents with various medical practices. Our heart model is compatible with endoscopic, ultrasound, MRI, CT and various medical imaging technologies.

The picture represents the phantom/model without a water tank. An optional water tank helps researchers in obtaining an enhanced view of the internal structure of the heart. The chambers and vessels are anatomically correct.

Adult Heart Transparent

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02355

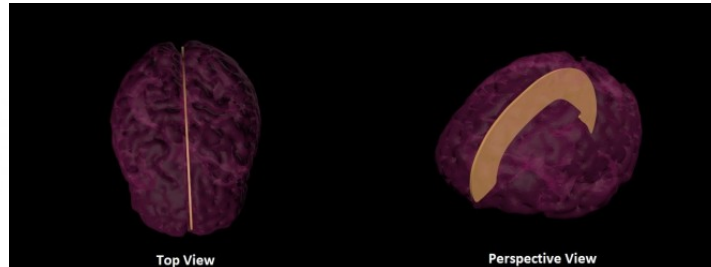
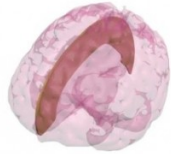


Adult heart for multipurpose is a realistic artificial human heart that is majorly used by hospitals, researchers and medical schools for research & development as well as to train medical students and residents with various medical practices. Our transparent heart model is compatible with endoscopic equipment and it is used whenever the optical transparency is crucial for research and training purposes. The picture represents the phantom/model without a water tank. An optional water tank helps researchers in obtaining an enhanced view of the internal structure of the heart. The chambers and vessels are anatomically correct.

Falx Cerebri

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02875



Falx Cerebri is a membrane which divides left and right brain hemispheres and it is designed based on an average anatomy of an adult human brain. This feature is a perfect navigation point for medical brain imaging and it is made from a realistic material suitable for ultrasound and MRI applications.

*Upon request, the feature can be also customized for X-Ray CT applications.



Configure your own Head Phantom for MRI, CT and Ultrasound

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: SM01843



A professional model of the head of an adult human, designed to perform MRI, CT and ultrasound imaging.

These phantom are used for medical imaging (both static and flow) and for treatment planning for HIFU procedures. They can be also used for training medical students and practitioners. True Phantom Solutions are pioneers in developing these phantoms and hold strength in customizing them.

The design of this phantom is based on an average human male head and it is made out of several realistic tissues mimicking materials that are suitable for Ultrasound, MRI and CT applications.

Based on the requirements of your project, you can select any of the following features or a combination of them.

- Grey Matter Cerebrum
- White Matter Cerebrum
- Aneurysm/Stenosis feature
- Brain ventricles feature
- Epidural feature
- Tumor feature
- Bifurcation feature
- Blood vessels feature
- Skull/Calvaria feature
- Foreign objects feature
- Skin feature
- Falx Cerebri feature
- lymph nodes
- salivary glands
- thyroid gland

For pricing, please send us your specifications in the inquiry!

www.openmedis.pl, e-mail: kontakt@openmedis.pl, tel: + 48 605 999 769

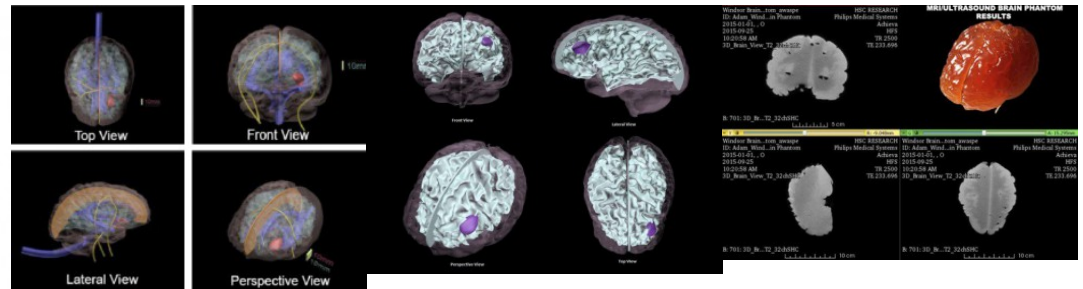




Create your own brain phantom specification for MRI, CT and USG diagnostics

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01875



We would like to present you the opportunity to create your own specification, multipurpose brain phantom. The design of the model was made based on the average human brain of an adult. It is built of realistic materials that mimic human tissues. Phantom is intended for training ultrasound (US), magnetic resonance imaging (MRI) and computed tomography (CT).

Based on the project requirements, you can choose any of the following functions or a combination of them:

- Grey Matter Cerebrum
- White Matter Cerebrum
- Aneurysm/Stenosis feature
- Brain ventricles feature
- Epidural feature
- Tumor feature
- Bifurcation feature
- Blood vessels feature
- Foreign objects feature
- other...

Additional information:

- ideal for training imaging diagnostics for doctors, medical students, electroradiologists, radiology technicians
- the model is also suitable for puncture - the ability to assess the position of the needle. ATTENTION! Needle puncture leaves a permanent mark in the phantom

For pricing, please send us the specification that interests you!



Newborn Simulator (Complex)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02864



This package comes with three products Complex: Newborn Head, Newborn Arm, and a Newborn Torso.



Newborn Simulator (Simple)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02865



This package comes with three products (Simple) Newborn Head, Newborn Arm, and a Newborn Torso.

USG Simulator- torso for ultrasonography, basic version, opaque

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01905



Full-size torophantom of an adult man. Realistic, anatomically correct. It has the ability to imaging all organs. It has been developed to provide high quality simulated ultrasound diagnostic training.

Main features:

- Realistic material imitating body tissue: opaque
- Realistic bones for ultrasound imaging: anatomically correct chest, anatomically correct spine, anatomically correct pelvis
- Anatomically correct heart phantom: Aorta, vena cava, 2 atria, 2 chambers, 4 valves
- Realistic esophagus
- Realistic liver, kidneys and lungs
- Realistic: Large and thin intestine, bladder, stomach, diaphragm, spleen and pancreas

Optional (the possibility of extending the torso with the following parameters):

1. FAST protocol (rapid ultrasound examination performed in the case of multi-organ injuries): detection of internal krotoki in the areas of the liver, spleen, pelvis and pericardium
2. Emergency ultrasound: pericardial haemorrhage, intraabdominal hemorrhage in the liver, spleen and bladder.
3. Other pathologies:
 - cholecystitis,
 - aortic aneurysm,
 - scarring on the colon
 - duodenal ulcer
 - polyps in the colon
 - tumors in strictly defined places enlarged lymph nodes
 - polyps of the anus and large intestine
 - adjusting the phantom to a specific type of bleeding



- the ability to adjust the phantom to CT and MRI diagnostics.
- other

4. Organs, e.g. the prostate gland

Additional information:

- delivered in a protective case
- warranty 2 years
- instruction
- dimensions: 120x65x45
- Weight: approx. 45kg
- possibility to adjust the phantom to the needs of a given project. Please send a description / specification for quotation. Phantom can be adapted to various pathologies as well as to specific training applications

Ultrasound Training Knee (left)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR03899

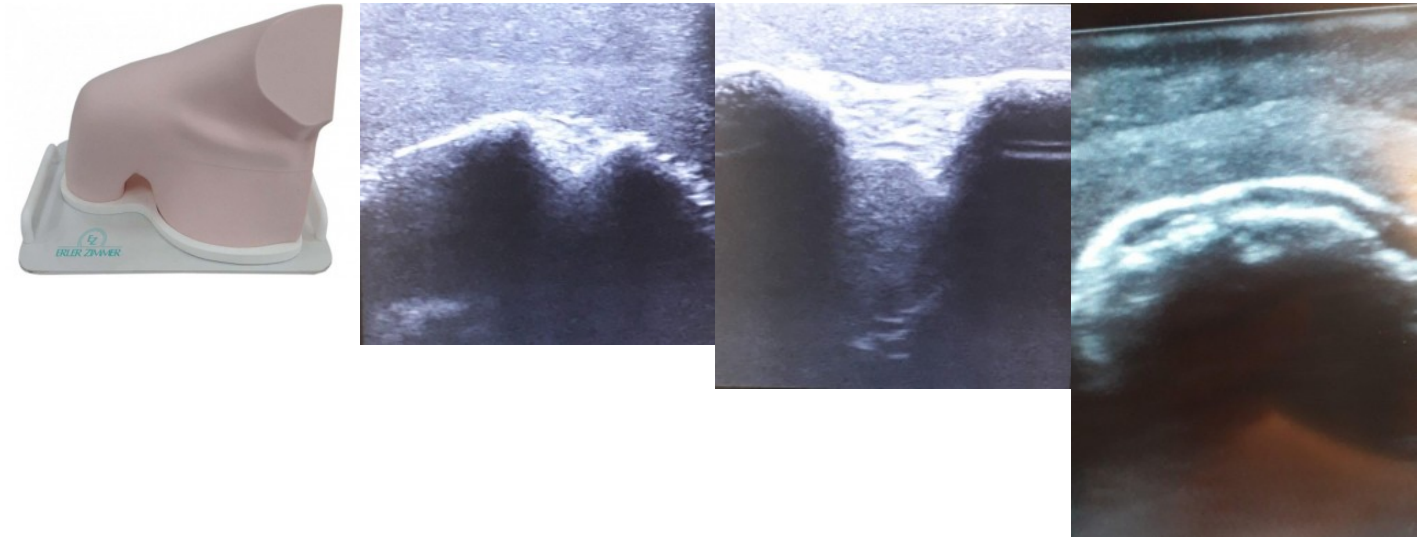


This ultrasound model shows a left, life-size human knee with the following structures: Femur, tibia and patella bones. Quadriceps tendon, patellar ligament, infrapatellar fat pad, synovium, prepatellar bursa, infrapatellar bursa and suprapatellar bursa. The knee can be punctured with 27 gauge (0.4mm) to 22 gauge (0.7mm) needles.

Ultrasound - Exercise Model Shoulder

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR03900

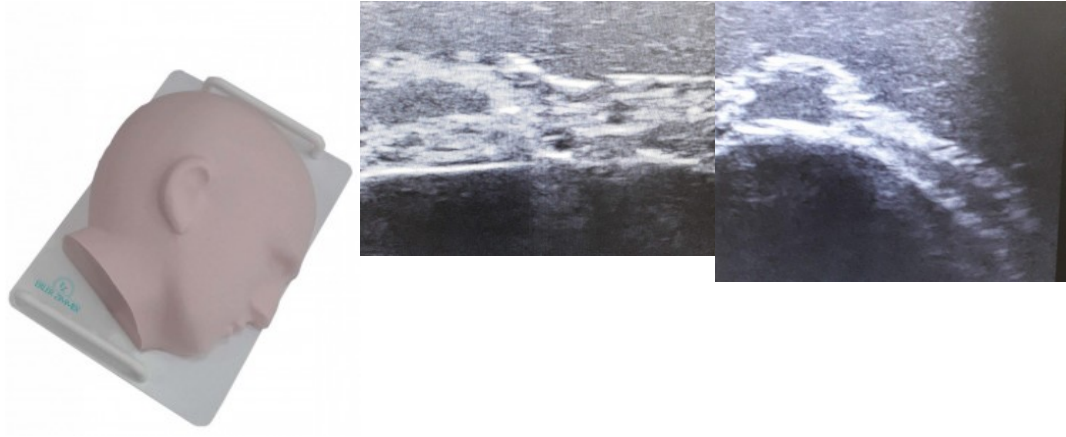


This ultrasound model shows a life-size human shoulder with the following structures: Humerus, scapula, clavicle, acromioclavicular ligament and biceps ligament. The shoulder can be punctured with 27 gauge (0.4mm) to 22 gauge (0.7mm) needles.

Ultrasound Training Face

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR03898



The Facial simulator contains the following muscles: Frontalis, Temporalis, O/Oculi, Risorius, Zygomaticus major & minor, Levator Labii, Buccinator, Alaeque Nasi, Orbicularis Oris, Labii Inferioris, Mentalis, Masseter.

Torsophantom for emergency ultrasonography + FAST protocol skin version)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: SM01863



Full-size, realistic phantom torso of an adult human. It has the ability to imaging all organs. It was developed in order to provide high quality simulated ultrasound diagnostic training, especially for FAST training (fast ultrasound performed in the case of multi-organ trauma) / FAMUS in emergency patients who had an abdominal or chest injury.

Main features:

1. Anatomically correct structure and size Realistic material imitating body tissue: skin version
 - Realistic bones for ultrasound imaging: anatomically correct chest, anatomically correct spine, anatomically correct pelvis
 - Anatomically correct heart phantom: Aorta, vena cava, 2 atria, 2 chambers, 4 valves
 - Realistic esophagus
 - Realistic liver, kidneys and lungs
 - Realistic: Large and thin intestine, bladder, stomach, diaphragm, spleen and pancreas
2. FAST protocol (rapid ultrasound examination in the case of multi-organ injuries): detection of internal bleeding in the areas of the liver, spleen, pelvis and pericardium
3. emergency ultrasound: pericardial haemorrhage, intraabdominal hemorrhage in the liver, spleen and bladder.
4. Other pathologies that allow us to diagnose this phantom under ultrasound guidance: cholecystitis, aortic aneurysm, scarring on the colon.

Additional information:

- delivered in a protective case
- warranty 2 years instruction
- dimensions: 85x32x32cm
- weight: approx. 45kg possibility to adjust the phantom to the needs of a given project. Please send a description / specification for quotation. Phantom can be adapted to various pathologies as well as to specific training applications

Optional:

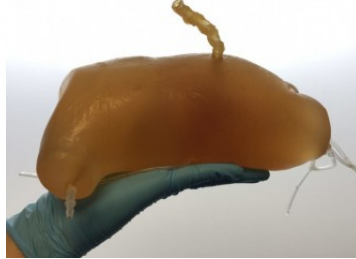
- tumors in strictly defined places
- enlarged lymph nodes
- adjusting the phantom to a specific type of bleeding
- the ability to adjust the phantom to CT and MRI diagnostics.



Newborn Torso (R&D)

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02866



An anatomically correct Newborn Torso is designed based on average newborn anatomy and it is made out of realistic tissue mimicking materials suitable for both Ultrasound and MRI applications. It can be used for Medical Imaging and Training Purposes.

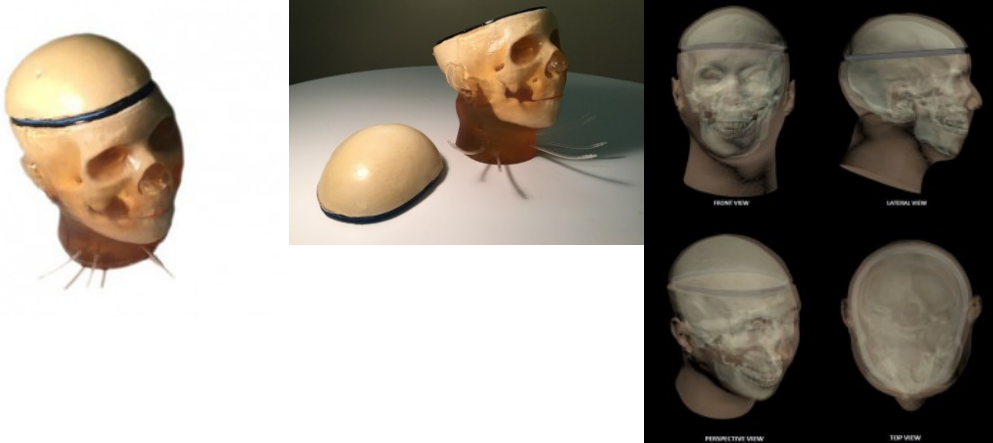
The phantom consists of the following features:

- Heart
- Liver
- Kidneys
- Stomach
- Small and Big Intestine
- Water Fillable Bladder
- Umbilical cord
- Realistic Body Tissue

The openable head phantom for X-Ray, Nuclear Medicine, CT, Ultrasound and MRI

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01877



Realistic phantom of the head of an adult man with the possibility of detaching the skull calvaria. It was designed to take **magnetic resonance imaging (MRI), CTomography, ultrasonography, X-ray pictures. It is also used in nuclear medicine.**

These phantoms can be used for medical imaging, both static and dynamic. Ideally suited for training medical students and practitioners. The design of this phantom is based on the average human head of a man and is made of several realistic tissues mimicking materials that are suitable for ultrasound, MRI and CT applications.

The basic set contains: anatomically correct, opened skull, opened skull calvaria, the material used has properties similar to natural human tissues anatomically correct brain (optional)

Based on the requirements of a given project, you can choose any of the following functions or a combination of them:

- Grey Matter Cerebrum
- White Matter Cerebrum
- Aneurysm/Stenosis feature
- Brain ventricles feature
- Epidural feature
- Tumor feature
- Bifurcation feature
- Blood vessels feature
- Skull/Calvaria feature
- Foreign objects feature
- Skin feature
- Falx Cerebri feature
- lymph nodes
- salivary glands
- thyroid gland

The set comes with instructions and a transport bag.

Possibility to make a phantom with its own proprietary specification. In order to pricing, please send us your

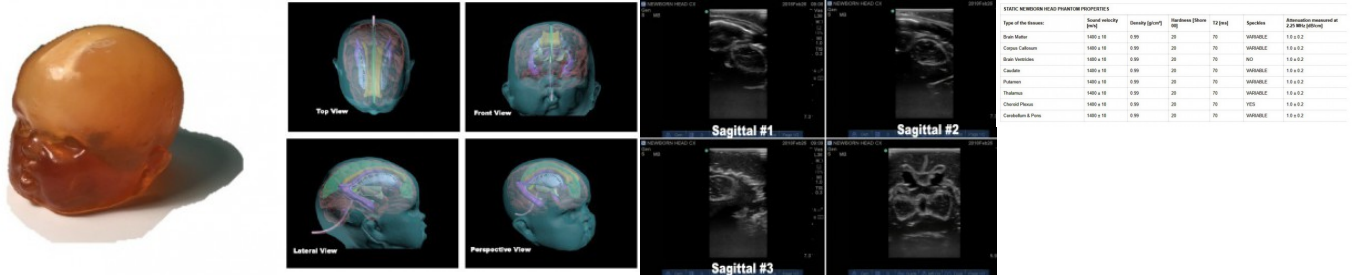


specifications with a list of functions selected from the above list.

Advanced Newborn head phantom for ultrasonography training

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01902



Anatomically correct phantom of a newborn's head. It was designed based on the average head of a newborn baby. Made of realistic tissue mimics, suitable for ultrasound maging.

The phantom consists of following components:

- Realistic Brain
- Corpus Callosum
- Falx
- Brain Ventricles
- Septum pellucidum
- Caudate nucleus
- Putamen
- Thalamus
- Choroid Plexus
- Cerebellum & Pons

Additional information:

- It is possible to adapt the head model of a newborn to the needs of a given project.
- For the purposes of the quote, please send the specifications in the inquiry.



Adult Human Torso for Ultrasound Training with FAST & Emergency training & included pathologies.

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR01903

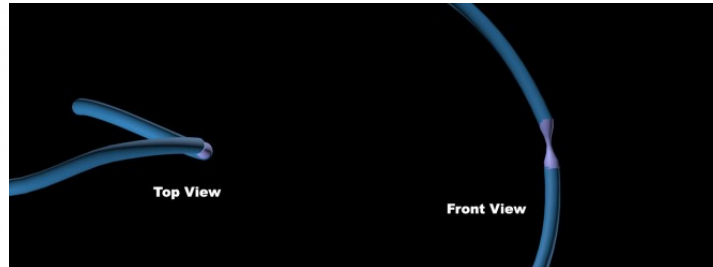


The most advanced ultrasound phantom in the form of a torso for ultrasound diagnostics. It allows to perform emergency ultrasound (FAST) and the detection of various organ pathologies.

Stenosis

Price inquiry: +48 605999769, kontakt@openmedis.pl

Product code: FR02877



Stenosis for R&D is an example of a feature that can be implemented to any location in the brain and/or blood vessels. The features shown on the image is made out of our proprietary blood vessel mimicking material with realistic **acoustical and MRI properties**.