

# Product Catalog V2.9



**TRUE PHANTOM**  
**SOLUTIONS**

Aug 28th, 2024

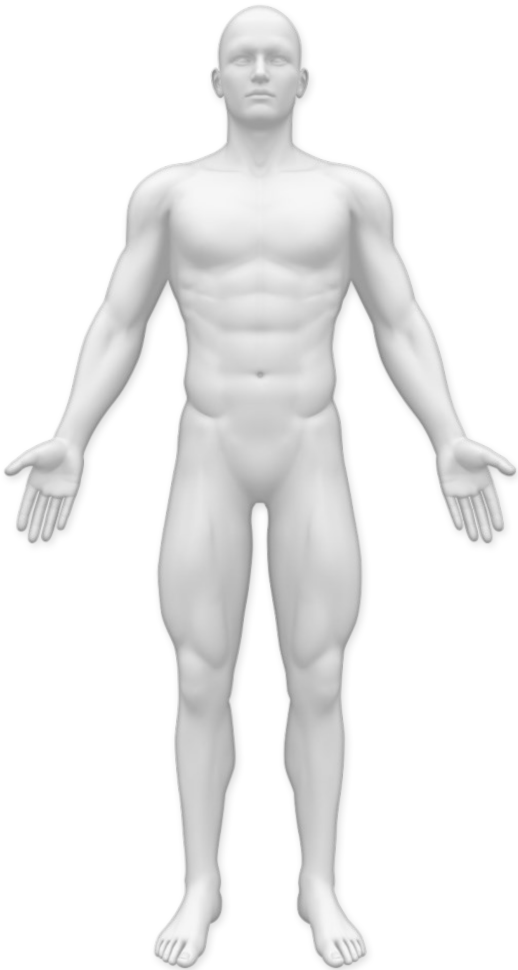
# True Phantom Solutions

## Expertise in X-Ray CT, US, MRI Phantoms

A multinational biomedical company that manufactures realistic human body parts that are also known as phantoms. These phantoms or medical simulators are highly realistic and lifelike models that can be used to carry out scientific research & development and medical training. Compatibility with Ultrasound, MRI, CT, and X-Ray makes our product unique and valuable.

[Patented technology](#) | [1-2 Year product warranty](#) | [Lifetime customer service](#)

## Who do we help?



TPS has developed the unique technology of synthetic materials used to create phantoms with realistic, life-like properties. These materials have highly realistic acoustical, physical, and mechanical properties which are identical to those of real human tissues.

Our phantoms are compatible with Ultrasound, MRI and CT medical diagnostic techniques and they may vary from simple cubic shapes to highly customized human-like copies. Through the use of 3D printing technology, exact patient models can be fabricated based on individual orders.







Our products are one-of-a-kind. We customize our phantoms to fit individual customer specifications for their unique biomedical needs.

### Who do we help?

- Researchers/scientists who develop new medical devices;
- Medical and nursing students who require tools to practice their hands-on skills;
- Neurosurgeons who perform non-invasive neurosurgical HIFU procedures;

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HD-N03

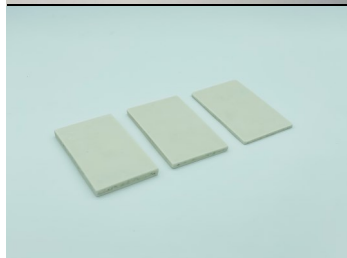
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Newborn Skull for X-Ray CT, US, MRI

SL-N01

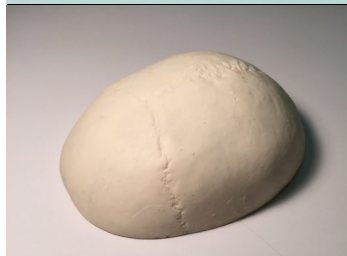
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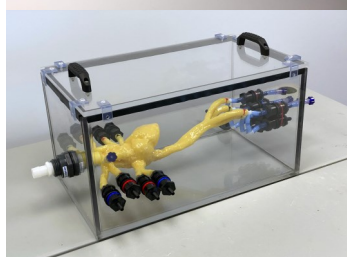
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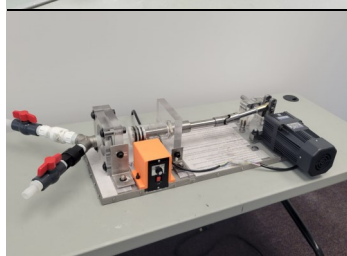
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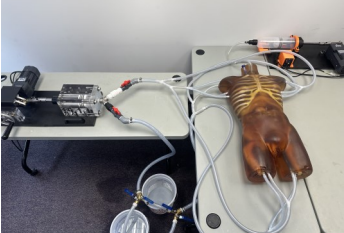
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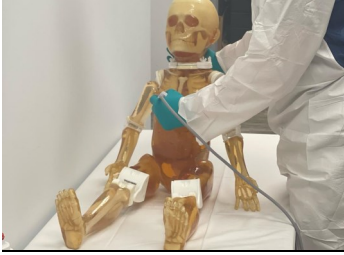



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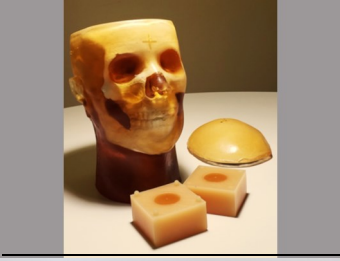



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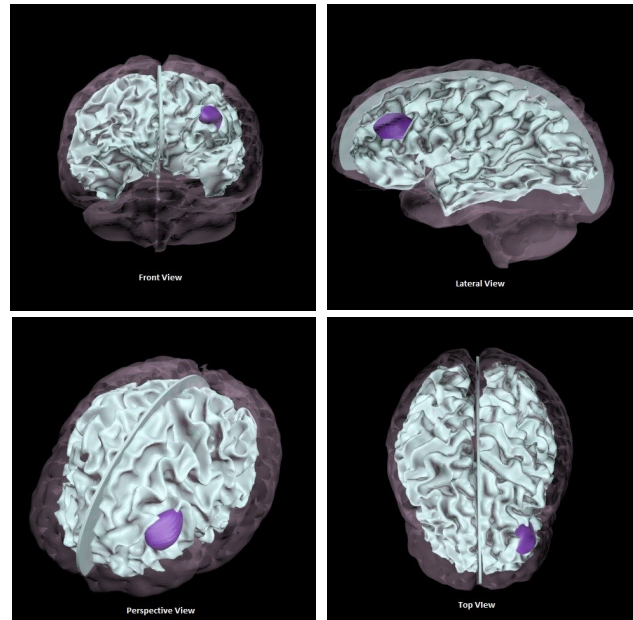
# Product Catalog



**TRUE PHANTOM**  
**SOLUTIONS**

## **X-Ray CT, US, MRI**

## Adult Brain (Basic) for X-Ray CT, US, MRI



BN-A03

### Description:

The Adult Brain (Basic) phantom is a realistic training tool designed to resemble an average brain. It is constructed using tissue-mimicking materials that are suitable for Ultrasound, MRI, and X-Ray/CT applications. In terms of MRI applications, the phantom tissues have realistic T2 relaxation time values, which makes this product to be 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.

### Anatomy:

- ✓ Tumor
- ✓ Realistic Brain Tissue
- ✓ Brain White Matter
- ✓ Brain Grey Matter

### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 2 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

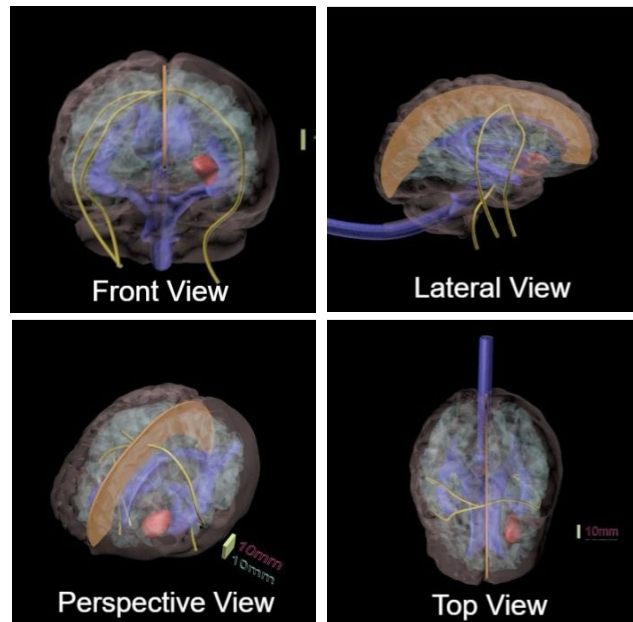
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Brain (Complex) for X-Ray CT, US, MRI



BN-A02



### Description:

The Adult Brain (Complex) phantom is designed based on an average brain, and it is made out of realistic tissue-mimicking materials suitable for Ultrasound, MRI, and X-Ray/CT applications.

In terms of MRI applications, the phantom tissues have realistic T2 relaxation time values, which makes this product to be 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.

### Anatomy:

- ✓ Realistic Brain Tissue
- ✓ Gray Matter (contrast x)
- ✓ White Matter (contrast x')
- ✓ Brain Ventricles
- ✓ Brain Tumor
- ✓ Blood Vessels with a 2mm Inner Diameter
- ✓ One Bifurcation
- ✓ Falx Cerebri

### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 2 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

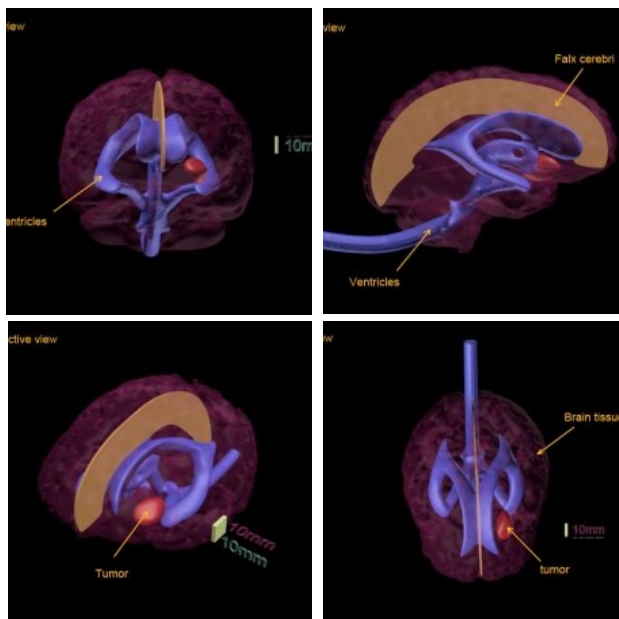
For more information about this product, please refer to our website.

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## Adult Brain (Standard) for X-Ray CT, US, MRI



BN-A01



### Description:

The Adult Brain (Standard) phantom is designed based on an average brain, and it is made out of realistic tissue-mimicking materials suitable for Ultrasound, MRI, and X-Ray/CT applications.

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.

### Anatomy:

- ✓ Accurate Geometry and Dimensions
- ✓ Realistic Brain Phantom
- ✓ Realistic Brain Tissue
- ✓ Brain Ventricles
- ✓ Brain Tumor
- ✓ Falx Cerebri

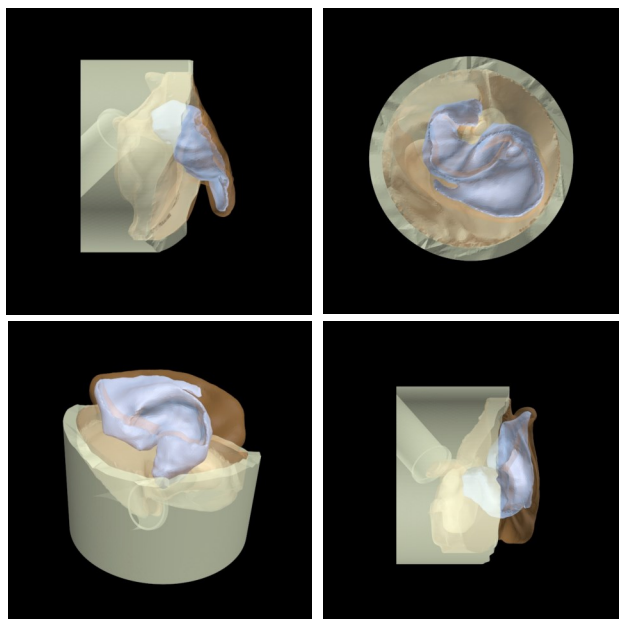
### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 2 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Ear for X-Ray CT, US, MRI



ER-A01

### Description:

The Ear Phantom is a product with the complex anatomy of a human ear, and it can be used for research and development of noise reduction equipment. The phantom can be customized to match a wide variety of projects that involve Ultrasound, X-Ray/CT, and MRI imaging methods. The ear phantom could be your ideal tool to test and do calibration-related work on any hearing aid equipment.

In terms of MRI applications, the phantom tissues have realistic T2 relaxation time values, which makes this product to be 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.

It can be fabricated as a stand-alone product or implemented to the full skull and/or head phantom.

### Anatomy:

- ✓ Ear Cartilage Tissue
- ✓ Bone with Ear Canal
- ✓ Acoustically Accurate Skin Mimicking-Tissue

### Size & Weight:

- ✓ Phantom Size: 3 x 3 x 3 Inches, Weight: 1 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 3 Lbs (approx.)

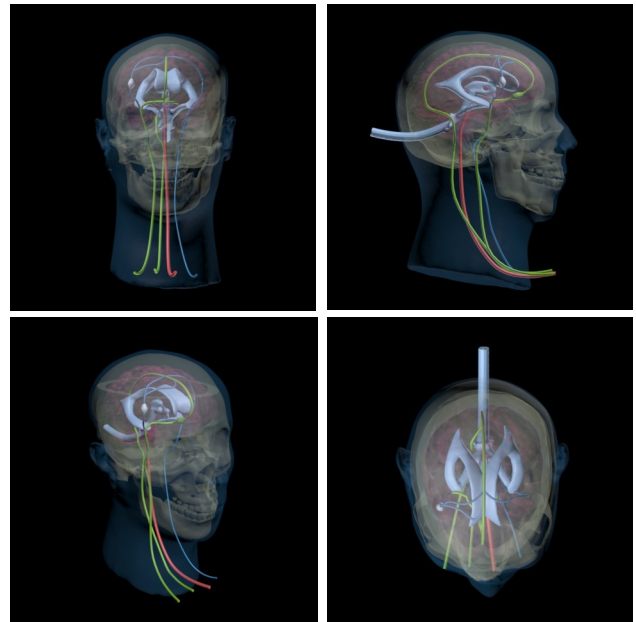
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Head (Dynamic, Advanced) for X-Ray CT, US, MRI



HD-C03



### Description:

The Adult Head (Dynamic, Advanced) phantom is visible on Ultrasound, MRI, and X-Ray/CT scans. The brain parenchyma is made of an ultra-soft polyurethane-based material that mimics soft tissue, and its anatomical shape was created based on the MRI scan of a human brain. The skull bone has a realistic three-layered structure with an inner diploe layer.

The phantom comprises realistic blood vessels which can be filled with any commonly used blood-mimicking fluid with or without a contrast agent. It also 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.

### Anatomy:

- ✓ Skull with Temporal and Suboccipital Windows for Transcranial Doppler Ultrasound
- ✓ Openable and Removable Calvaria
- ✓ Brain Phantom
- ✓ Complex Brain Vessels incorporated Circle of Willis
- ✓ One Bifurcation
- ✓ One Stenosis
- ✓ Two Aneurysms
- ✓ Connecting Vessels with Neck
- ✓ Plastic Connectors
- ✓ Brain Ventricles

### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

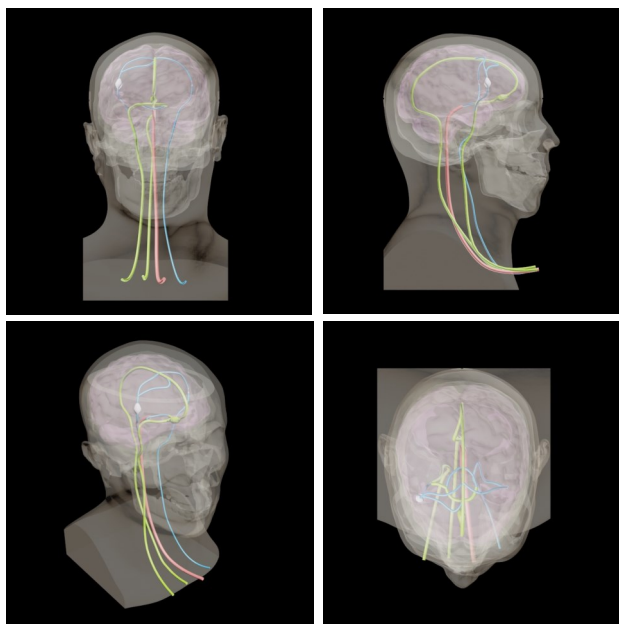
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Head (Dynamic) for X-Ray CT, US, MRI



HD-A02



### Description:

The Adult Head (Dynamic) phantom is visible on Ultrasound, MRI, and X-Ray/CT scans. The brain parenchyma is made of an ultra-soft polyurethane-based material that mimics soft tissue, and its anatomical shape was created based on the MRI scan of a human brain. The materials used to build this phantom are stable with time, and they do not dry out. The skull bone has a realistic three-layered structure with an inner diploe layer.

The phantom comprises realistic blood vessels which can be filled with any commonly used blood-mimicking fluid with or without a contrast agent.

### Anatomy:

- ✓ Skull based on the CT Scan of a Human Head
- ✓ Realistic Brain Parenchyma (Grey Matter)
- ✓ Complex Brain Vessels Incorporated Circle of Willis
- ✓ One Bifurcation
- ✓ One Stenosis
- ✓ Two Aneurysms
- ✓ Vessels Connected with the Neck

### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

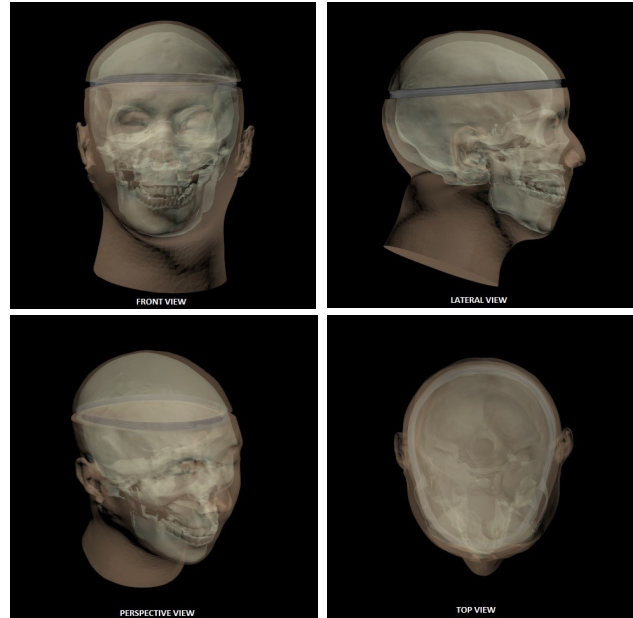
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Head (Openable) for X-Ray CT, US, MRI



HD-C02



Note: Brain is not included. Can be included upon request.

### Description:

The Adult Head (Openable) phantom for Ultrasound, MRI, and X-Ray/CT was first fabricated based on the unique requirements of IIT Madras in the year 2017. Then later, we improved the accessibility and functionalities of this product with our technology and experience. Different brains can be inserted in and out to serve the purpose of many different research projects. The phantom is suitable for medical imaging applications (both static and dynamic), nuclear medicine, and other CT applications. It can also be customized for training medical students and practitioners. We hold the strength and technology to customize them to meet your needs. If you are a research student or a scientist with medical imaging project. This is your optimal choice.

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. The skull bone has a realistic three-layered structure with an inner diploe layer.

### Anatomy:

- ✓ Skull Phantom
- ✓ Openable Skull Feature
- ✓ Brain Phantom (Optional)

### Size & Weight:

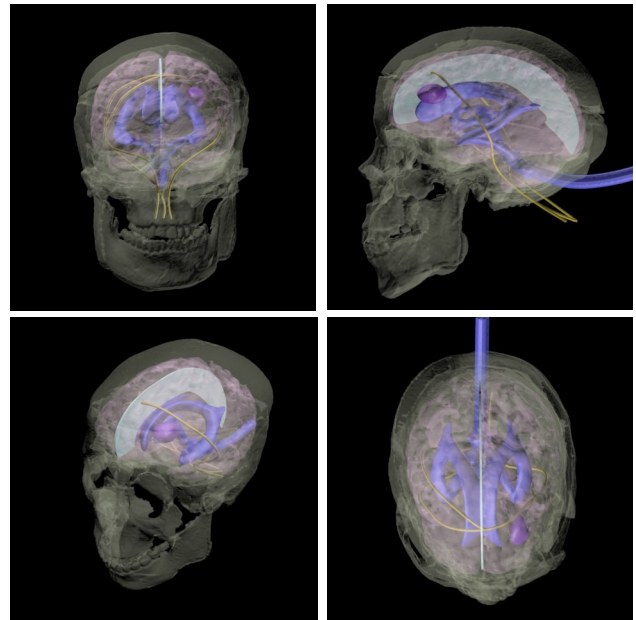
- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)



## Adult Head (Standard) for X-Ray CT, US, MRI



HD-A03

### Description:

Adult Head (Standard) phantom is designed based on an average human male head and is made of realistic tissue mimicking materials suitable for Ultrasound, MRI, and X-Ray/CT applications. 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 skull bone has a realistic three-layered structure with an inner diploe layer.

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.

### Anatomy:

- ✓ Realistic Brain Phantom
- ✓ Water-Fillable Brain Ventricles
- ✓ Brain Tumor
- ✓ Blood Vessels with One Bifurcation
- ✓ Flax Cerebri

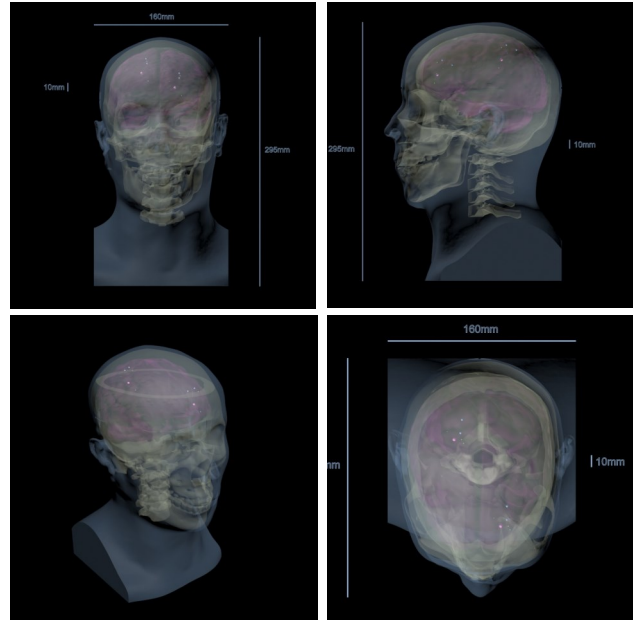
### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Head (Static) for X-Ray CT, US, MRI



HD-A01

### Description:

The Adult Head (Static) Phantom is designed to be suitable for medical imaging of foreign static objects such as small bone pieces, shrapnel, bullets, and any other metal or non-metal targets. The phantom is designed based on an average anatomy of a human male head, and it is made out of realistic soft and hard tissue-mimicking materials suitable for Ultrasound, MRI, and X-Ray/CT applications.

The materials used to build this phantom are stable with time, and they do not dry out. The skull bone has a realistic three-layered structure with an inner diploe layer.

### Anatomy:

- ✓ Realistic Skull Phantom
- ✓ Realistic Brain Phantom
- ✓ Gray Matter
- ✓ Small Static Objects (0.5mm, 1mm, 3mm Diameters)
- ✓ Cervical Spine

### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

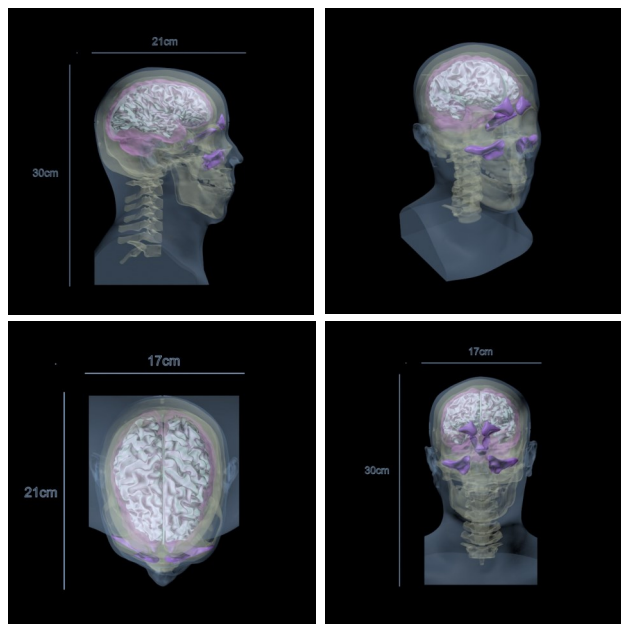
For more information about this product, please refer to our website.

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## Adult Head (Training, V1) for X-Ray CT, US, MRI



HD-A04



### Description:

The Adult Head (Training, V1) is an X-Ray/CT, MRI, and Ultrasound compatible training phantom used by radiology schools, medical schools & teaching hospitals for training their students & medical professionals in various scanning techniques. The skull bone has a realistic three-layered structure with an inner diploe layer.

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.

### Anatomy:

- ✓ Skull Phantom
- ✓ Realistic Brain Phantom:
  - Realistic Brain Tissue
  - Gray Matter (contrast x)
  - White Matter (contrast x')
  - Brain Ventricles
- Falx Cerebri
- ✓ Realistic Air Cavities
- ✓ Skin-Mimicking Material
- ✓ Cervical Spine
- ✓ Alignment Markings
- ✓ Frontal Sinus with Air Gaps

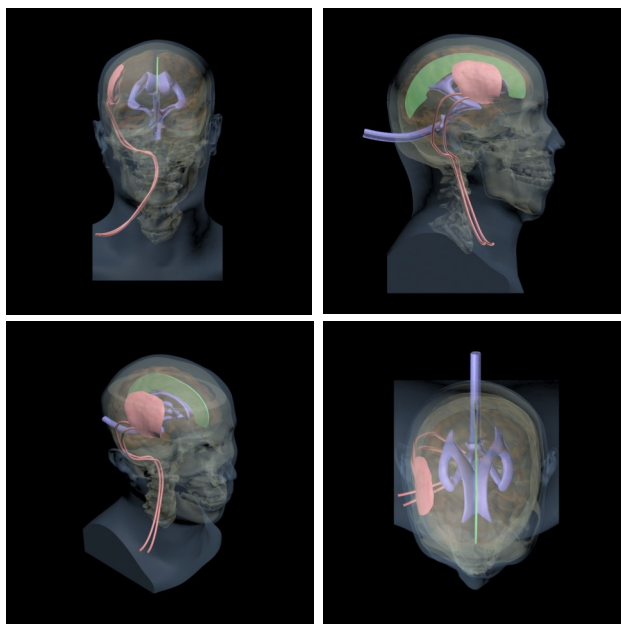
### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Head (Hematoma) for X-Ray CT, US, MRI



HD-A05

### Description:

The Adult Head (Hematoma) phantom represents a revolutionary leap in medical training, offering a sophisticated solution that harmoniously interfaces with X-Ray CT, Ultrasound, and magnetic resonance imaging. Designed with precision, this phantom replicates the anatomy of the human head.

This advanced phantom serves as an exceptional training instrument for a range of medical applications, particularly those related to head trauma, hematomas, stroke, and aneurysms. By providing a lifelike simulation of various clinical scenarios, it empowers practitioners to refine their expertise in a risk-free environment.

### Anatomy:

- ✓ Skull Phantom
- ✓ Realistic Brain Phantom:
  - Gray Matter
  - Hematoma
  - Brain Ventricles
  - Falx Cerebri

### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 22 Lbs (approx.)

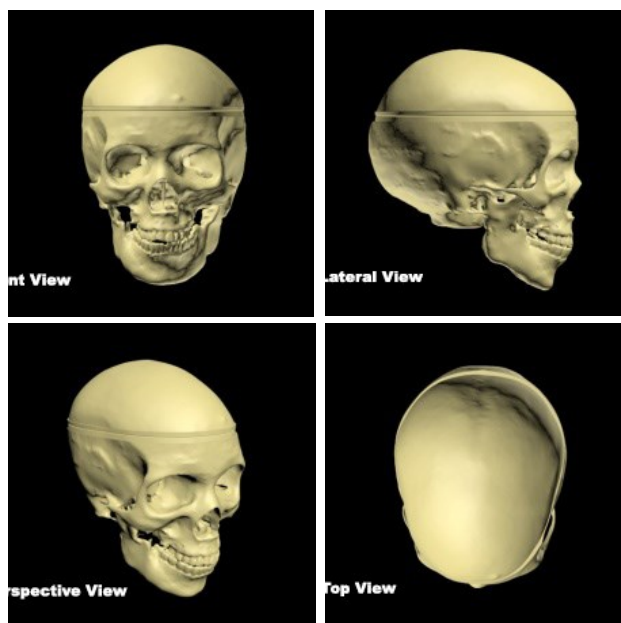
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Skull for X-Ray CT, US, MRI



SL-A01



### Description:

Adult Human Skull Phantom is an ideal tool that can be used for medical imaging research and treatment planning of non-invasive HIFU brain surgeries. True Phantom Solutions are pioneers in developing these phantoms and hold strength in customizing them.

The design of this phantom is based on the actual CT scan of a human male head. The Skull is cast out of our realistic patented epoxy-based bone material that is suitable for Ultrasound, MRI, and X-Ray/CT applications (any other part of the skull can be fabricated based on the customer's order).

The phantom has a realistic three-layered structure with an inner porosity (diploe) that can be adjusted according to the requirement of the particular project.

### Anatomy:

- ✓ Complete Human Skull
- ✓ Removable Calvaria
- ✓ Jaw Bone

### Size & Weight:

- ✓ Phantom Size: 6 x 8 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 15 Lbs (approx.)

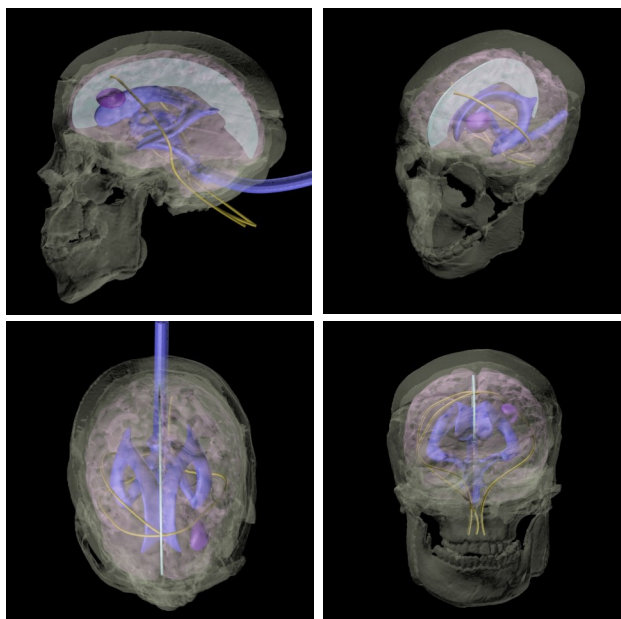
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Skull with Brain for X-Ray CT, US, MRI



SL-A02



### Description:

Adult Human Skull with Brain Phantom is similar to our Head Phantom without skin-mimicking tissue. It can serve multiple purposes, such as medical imaging research and treatment planning of non-invasive HIFU brain surgeries.

The skull is designed based on an average human male skull, and it has a realistic three-layered structure with an inner diploe layer. It is made out of realistic patented epoxy-based bone material suitable for Ultrasound, MRI, and X-Ray/CT applications (any other part of the skull can be fabricated based on the customer's order).

### Anatomy:

- ✓ Human Skull
- ✓ Human Brain
- ✓ Blood Vessels
- ✓ Bifurcation
- ✓ Brain Ventricles
- ✓ Tumor
- ✓ Falx Cerebri

### Size & Weight:

- ✓ Phantom Size: 6 x 8 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 15 Lbs (approx.)

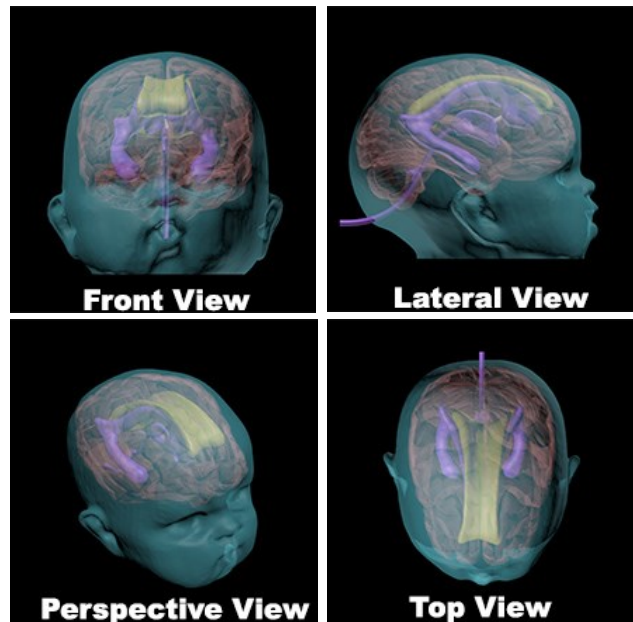
For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Head (Dynamic) for X-Ray CT, US, MRI



HD-N03



### Description:

The Newborn Head (Dynamic) phantom is designed to be suitable for medical imaging of blood flow underneath the skull. The phantom is designed based on an average newborn head and is made out of realistic soft and hard tissue-mimicking materials suitable for Ultrasound, MRI, and X-Ray/CT applications. The skull pieces are individually cast from our realistic patented epoxy-based bone material.

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

### Anatomy:

- ✓ Based on an average Newborn Skull
- ✓ Realistic Newborn Brain Phantom
- ✓ Complex Blood Vessel Structures with Circle of Willis
- ✓ One Bifurcation
- ✓ Complex Network of Small Vessels

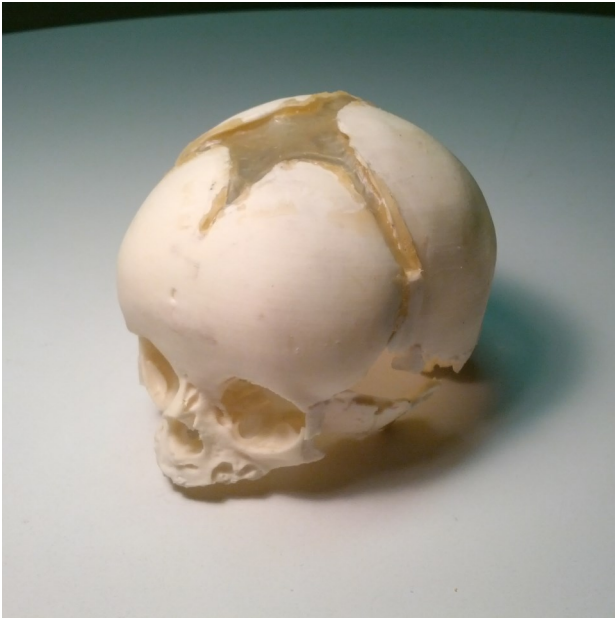
### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 8 Lbs (approx.)

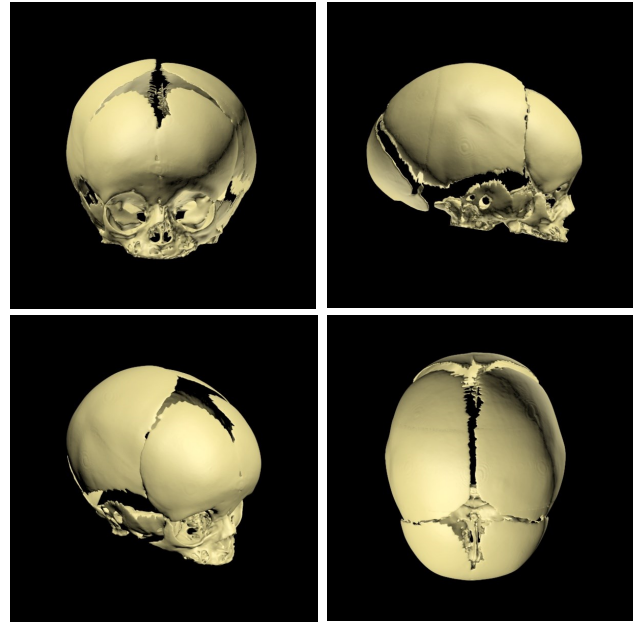
For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Skull for X-Ray CT, US, MRI



SL-N01



### Description:

The Newborn Skull is a multipurpose phantom medical imaging research & treatment planning of non-invasive HIFU brain surgeries. True Phantom Solutions are pioneers in developing these phantoms and hold strength in customizing them to suit the needs of researchers and medical practitioners.

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

### Anatomy:

- ✓ Based on an Average Newborn Human Skull
- ✓ Realistic Bone-Mimicking Material

Cadaveric Specimen



Phantom Specimen



A Wydra, RG Maev, Phys Med Biol, Vol 58(22), N303-19, 2013.

### Size & Weight:

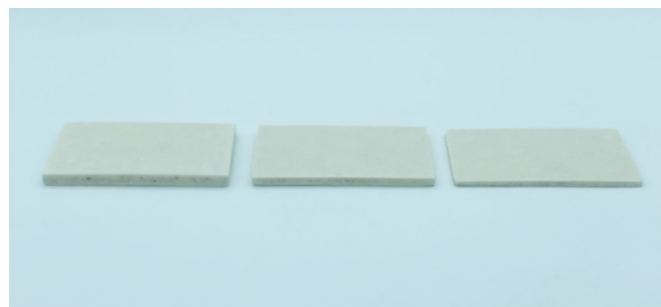
- ✓ Phantom Size: 4 x 6 x 5 Inches, Weight: 2 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)



## Planar Skull Bone Phantoms for X-Ray CT, US, MRI



SL-A03

### Description:

Planar Skull Bone Phantoms are an ideal tool that can be used for medical imaging research. Each bone plate has a realistic three-layered structure with the inner diploe layer. True Phantom Solutions are pioneers in developing these phantoms and hold strength in customizing them.

The Skull Bones are cast out of our realistic patented epoxy-based bone material that is suitable for Ultrasound, MRI, and X-Ray/CT applications.

### Anatomy:

- ✓ Planar Skull Bones (3):
  - 1) 3/8 x 3 x 5 inch (10 x 7.6 x 12.7 cm)
  - 2) 5/16 x 3 x 5 inch (7.5 x 7.6 x 12.7 cm)
  - 3) 3/16 x 3 x 5 inch (5 x 7.6 x 12.7 cm)
- ✓ Cortical Bone
- ✓ Trabecular Bone

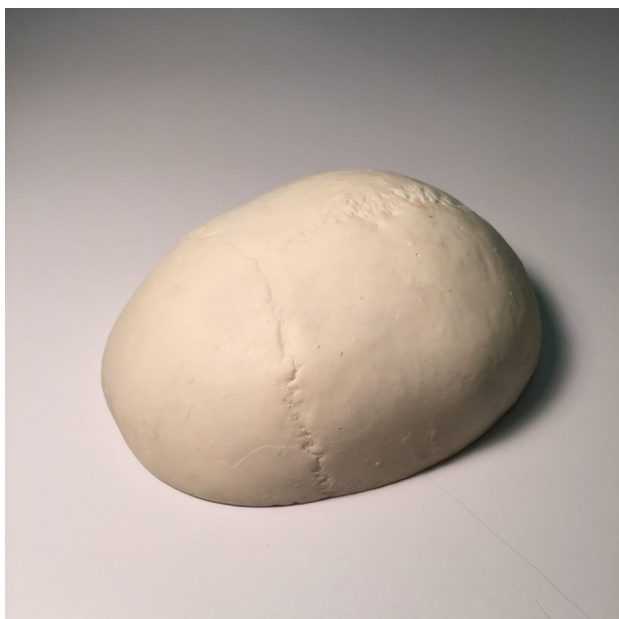
### Size & Weight:

- ✓ Phantom Size: Weight: 0.7 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

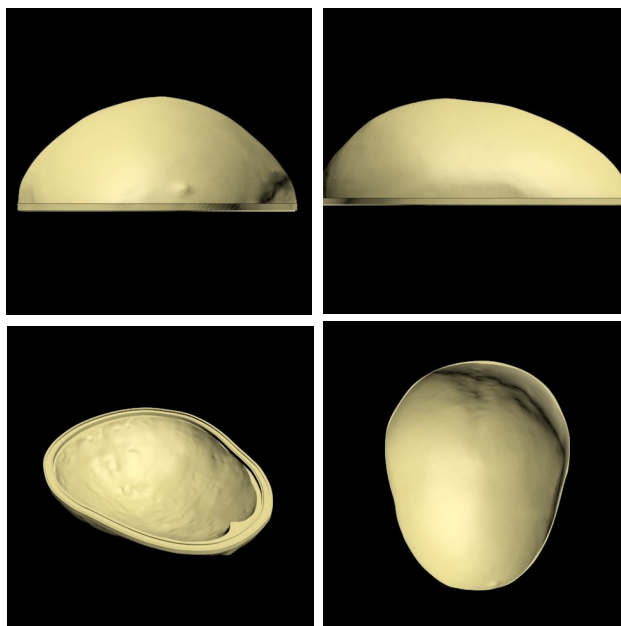
For more information about this product, please refer to our website.

[Learn More](#)

## Standard Calvaria for X-Ray CT, US, MRI



CA-A01



### Description:

The design of this phantom is based on an average human male skull, and It is developed using our patented ceramic-reinforced epoxy-based composite material 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 project's requirements.

There are several applications of this phantom. It is primarily used for medical imaging & diagnostic research, and treatment planning of non-invasive HIFU brain surgeries.

### Anatomy:

- ✓ Calvaria
- ✓ Cortical Bone
- ✓ Trabecular Bone

### Size & Weight:

- ✓ Phantom Size: 6.7 x 5.5 x 2.4 Inches, Weight: 2 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

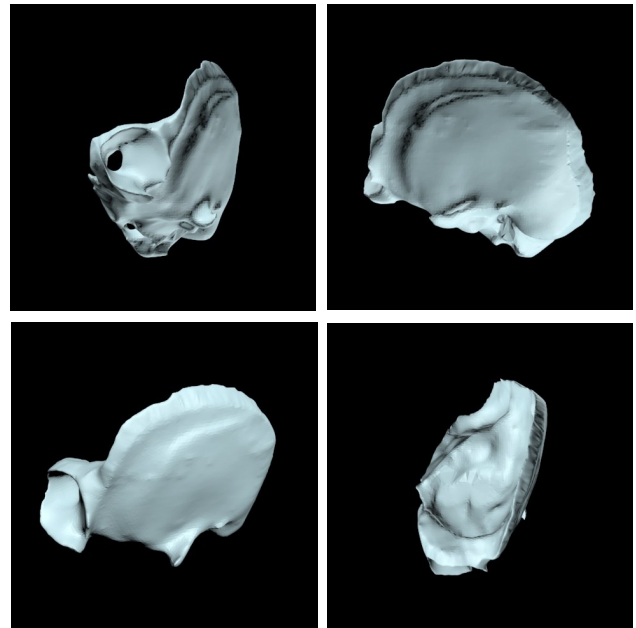
For more information about this product, please refer to our website.

[Learn More](#)

## Temporal Bone Phantoms for X-Ray CT, US, MRI



TW-C01



### Description:

Temporal Bone Phantoms are an ideal tool that can be used for medical imaging research. Each bone has a realistic three-layered structure with the inner diploe layer. True Phantom Solutions are pioneers in developing these phantoms and hold strength in customizing them.

The Skull Bones are cast out of our realistic patented epoxy-based bone material that is suitable for Ultrasound, MRI, and X-Ray/CT applications.

### Anatomy:

- ✓ Temporal Skull Bones (3):
  - A) 2.2 mm thickness
  - B) 4.0 mm thickness
  - C) 7.0 mm thickness
- ✓ Cortical Bone
- ✓ Trabecular Bone

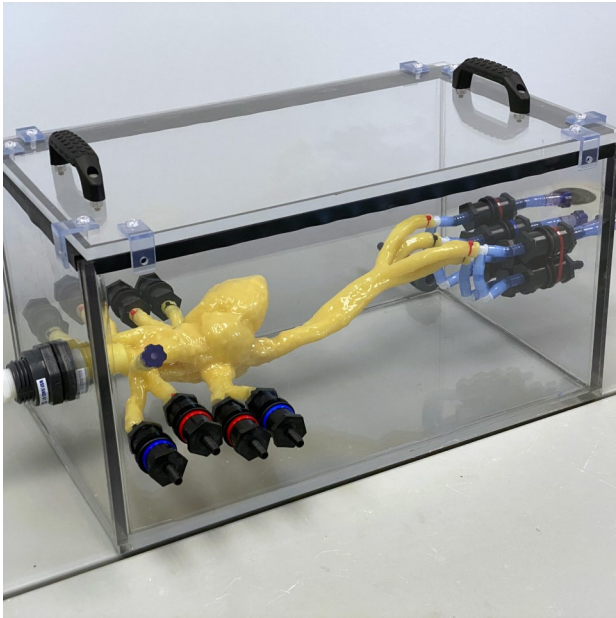
### Size & Weight:

- ✓ Size: 2.2 mm, 4.0 mm, 7.0 mm , Weight: 0.7 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

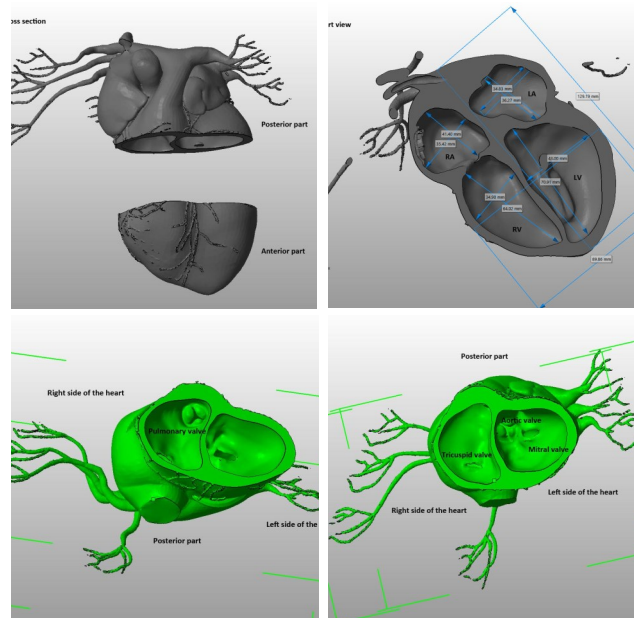
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Heart for X-Ray CT, US, MRI



HT-A01



### Description:

The Adult Heart Phantom is a realistic simulator of a healthy-adult human heart. The phantom is compatible with X-Ray/CT, Ultrasound, and MRI. This product has a wide range of applications as it also has the potential to support beating functionality and generate life-like motions. Some of its uses and applications include transesophageal and transthoracic echocardiograms, ultrasound-navigated endoscopies, catheter insertion under ultrasound probes, and other cardio-based research and development studies.

### Anatomy:

#### ✓ 2 Atria, 2 Ventricles:

- Right Ventricle
  - Moderator Band that runs from the anterior wall to the septum bridge
- Left Ventricle
  - Papillary muscles to the anterior and posterior walls
- Right Atrium
  - Right atrial appendage with distinct muscle structures
- Left Atrium

– Unique muscle structure to the appendage of the left atrium

- ✓ 4 Valves
- ✓ Appendage Feature
- ✓ SVC
- ✓ IVC
- ✓ Aorta
- ✓ Jugular vessels
- ✓ Pulmonic and Pulmonary Veins attached to LA
- ✓ Flexible Valvular Structures

### Size & Weight:

- ✓ Phantom Size: 23 x 7 x 12 Inches, Weight: 3 Lbs (approx.).
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 22 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Heart Pump (V3)



Note: Product does not come with heart phantom. Image is only to show its functionality.

HP-A03

### Description:

Heart Pump (V3) is the third generation of our novel piston-based heart pump. The new pump is more user-friendly, has better durability, is smaller than its previous version, and allows for continuous work/heartbeat for a long period of time. The pump can be attached to our TPS heart phantom to give a realistic heart cyclic motion of heart walls.

The piston-based pump is powered by a 200W motor that enables the beating functionality of the heart phantom and supports an adjustable beating rate from 0 BPM – 140 BPM. It creates realistic pressure & motion inside the heart chambers to give life-like imaging results.

### Features:

- ✓ Beating heart model with the cyclic motion of the heart walls
- ✓ Water-fillable chambers with minimal air pockets
- ✓ Adjustable heart rate (0 BPM – 140 BPM)
- ✓ Adjustable stroke volume (0 ml to 60 ml)
- ✓ Hysteresis in motion (diastole and systole of the cardiac cycle)
- ✓ Asymmetrical displacement of the heart chambers
- ✓ The complete system is installed on a Garolite (G10) base
- ✓ Available in 220 V or 110 V

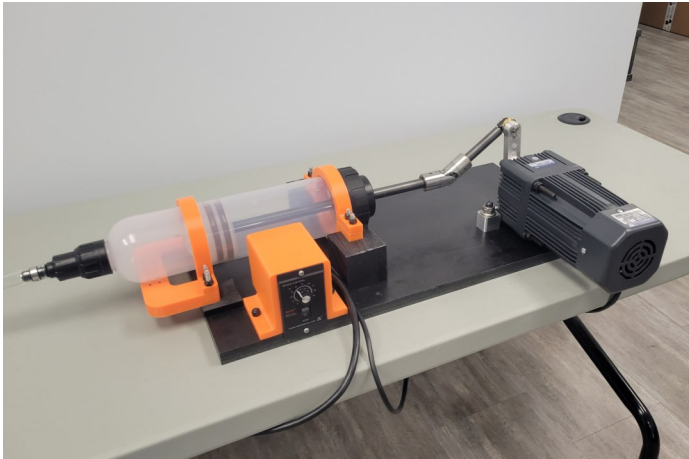
### Size & Weight:

- ✓ Product Size: 36 x 12 x 8 Inches, Weight: 80 Lbs (approx.).
- ✓ Shipment Size: 36 x 14 x 10 Inches, Weight: 90 Lbs (approx.).

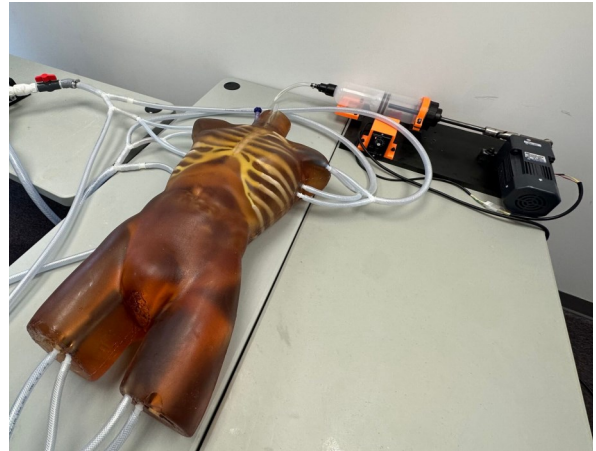
For more information about this product, please refer to our website.

[Learn More](#)

## Lung Pump



LP-A01



Note: This product only includes the Lung Pump.

### Description:

The adjustable cyclic respiratory motion, ranging from 0 to 45 breaths per minute, ensures an accurate representation of various respiratory scenarios. Users can also fine-tune the breath volume with options including 0.25L, 0.5L, 0.75L, and 1L, accommodating a wide range of training requirements. The Lung Pump's adaptability makes it an ideal tool for simulating diverse patient conditions and respiratory challenges.

The pump is housed on a secure plexiglass base, offering stability and ease of use. Whether used for medical education, clinical training, or research purposes, the Lung Pump sets a new standard in simulating lifelike respiratory dynamics, providing an immersive and customizable experience for healthcare professionals.

### Features:

- ✓ Enabling breathing capability by modifying static lungs to dynamic inflatable lungs
- ✓ Realistic cyclic respiratory motion
- ✓ Custom duration of the breathing cycle
- ✓ Adjustable cyclic respiratory motion (0 – 45 breaths per minute)
- ✓ Adjustable breath volume (0.25L, 0.5L, 0.75L, 1 L)
- ✓ Complete system installed on a secure plexiglass base

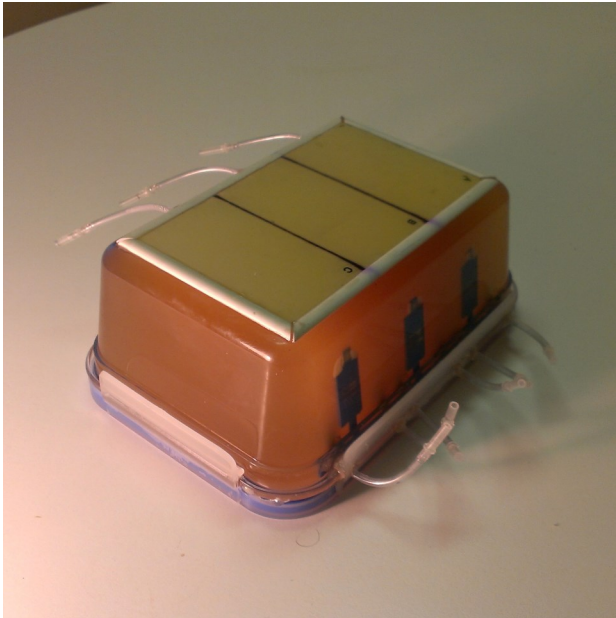
### Size & Weight:

- ✓ Product Size: 36 x 12 x 8 Inches, Weight: 48 Lbs (approx.).
- ✓ Shipment Size: 49 x 17 x 13 Inches, Weight: 62.5 Lbs (approx.).

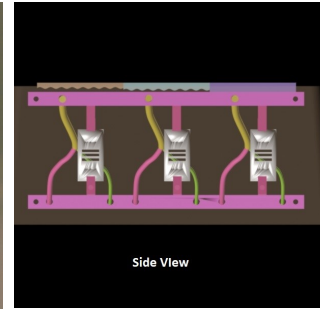
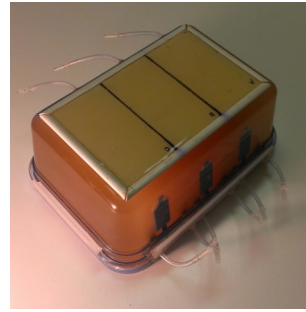
For more information about this product, please refer to our website.

[Learn More](#)

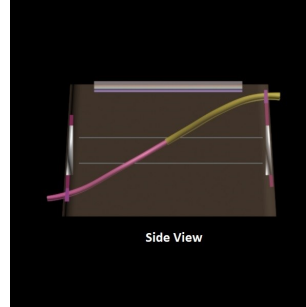
## Doppler Phantom for X-Ray CT, US, MRI



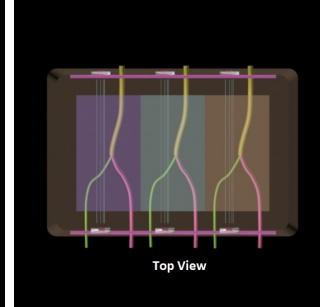
DP-C01



Side View



Side View



Top View

### Description:

Doppler Phantoms are used for medical imaging research and development, training, and testing purposes. The bone plate installed on the top of this phantom mimics the skull bone, which in this case simulates only the 2D projection of the skull with a realistic internal porosity structure. The internal blood vessels can be filled either with water or with most of the commonly used blood-mimicking fluids.

The phantom can be customized in multiple ways to suit the needs of a wide variety of applications.

### Anatomy:

- ✓ 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

### Size & Weight:

- ✓ Product Size: 8 x 6 x 4 Inches, Weight: 1 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

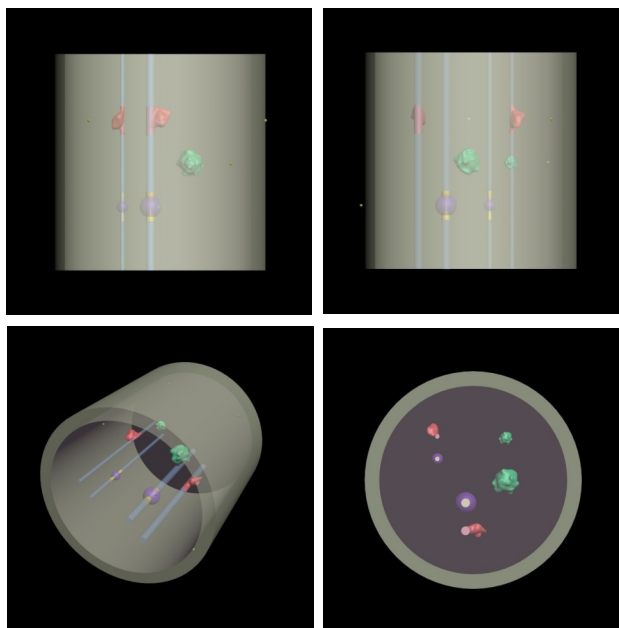
For more information about this product, please refer to our website.

[Learn More](#)

## Cylindrical Head for X-Ray CT, US, MRI



HD-G01



### Description:

This Cylindrical Head Phantom is an ideal tool for medical imaging research. Main applications of this phantom is computed tomography and ultrasound tomography.

The Skull is cast out of our realistic patented epoxy-based bone material that is suitable for Ultrasound, MRI, and X-Ray/CT applications. The phantom has a realistic three-layered structure with an inner porosity (diploe) that can be adjusted according to the project's requirements.

For MRI applications, the phantom's tissues exhibit realistic T2 relaxation time values, making it an excellent fit for T2-weighted MRI imaging techniques. Proton Density imaging methods also yield high-quality outcomes. While T1-weighted techniques are viable, T1 values are less accurate, falling within the approximate range of 100 ms.

### Anatomy:

- ✓ Cylindrical 3-layered Skull Phantom
- ✓ Realistic Brain Tissue
- ✓ 15 cm Diameter
- ✓ Blood Vessels with Contrast Agent
- ✓ Blood Vessels without Contrast Agent
- ✓ Tumors
- ✓ Alignment Markings

### Size & Weight:

- ✓ Phantom 5 29/32 x 5 29/32 x 5 29/32 Inches, 8 Lbs (approx.)
- ✓ Shipment: 23 x 14 x 10 Inches, Weight: 16 Lbs (approx.)

For more information about this product, please refer to our website.

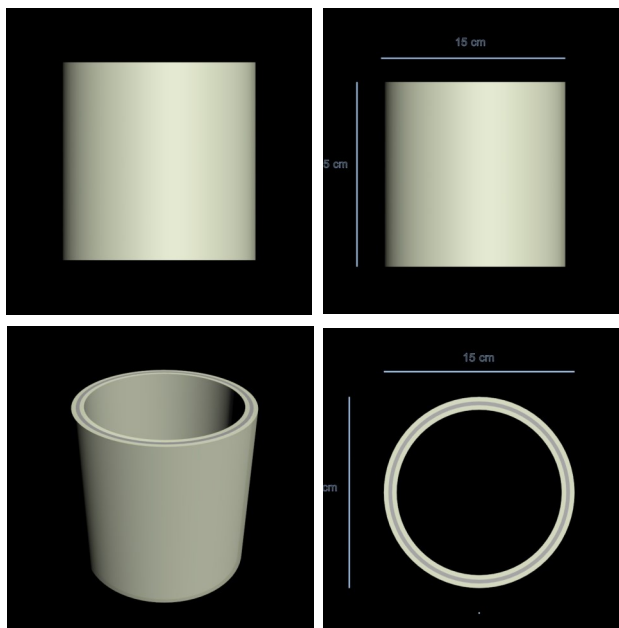
[Learn More](#)



## Cylindrical Skull for X-Ray CT, US, MRI



SL-G01



### Description:

This Cylindrical Skull Phantom is an ideal tool for medical imaging research. True Phantom Solutions is a pioneer in developing these phantoms and holds the strength to customize them.

The Skull is cast out of our realistic patented epoxy-based bone material that is suitable for Ultrasound, MRI, and X-Ray/CT applications. The phantom has a realistic three-layered structure with an inner porosity (diploe) that can be adjusted according to the project's requirements.

For MRI applications, the phantom's tissues exhibit realistic T2 relaxation time values, making it an excellent fit for T2-weighted MRI imaging techniques. Proton Density imaging methods also yield high-quality outcomes. While T1-weighted techniques are viable, T1 values are less accurate, falling within the approximate range of 100 ms.

### Anatomy:

- ✓ Cylindrical Skull Phantom
  - 15 cm x 15 cm, 10mm thickness
- ✓ Cortical Bone
- ✓ Trabecular Bone

### Size & Weight:

- ✓ Phantom: 6 x 6 Inches, Weight: 3.5 Lbs (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 6 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

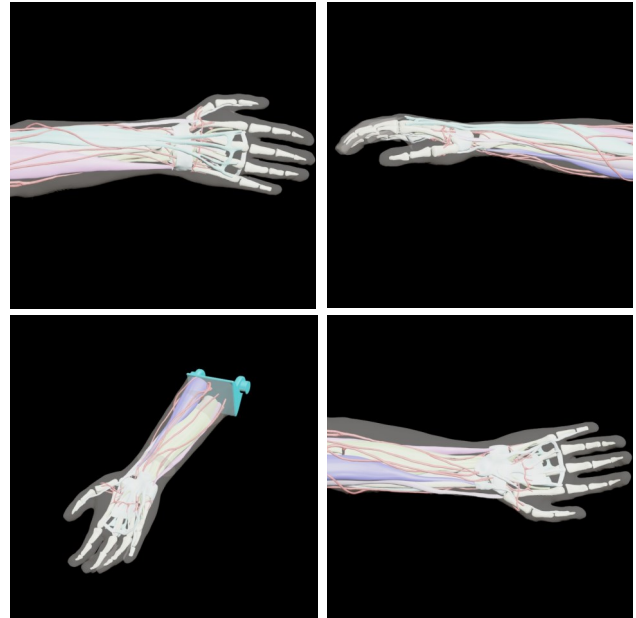
# Product Catalog



**TRUE PHANTOM**  
**SOLUTIONS**

## X-Ray CT, US

## Adult Arm (Advanced) for X-Ray CT, US



AR-A03

### Description:

The Adult Arm Phantom for X-Ray/CT and Ultrasound is a realistic, life-size phantom that is designed based on an average anatomy of a human arm with all the essential bones and tissue features. All major ligaments/tendons structures are present inside. This phantom is compatible with X-Ray/CT and Ultrasound, which makes it an ideal tool to study, research, and test medical imaging devices.

AR-A03 can be used to study several diagnostic X-Ray/CT & Ultrasound procedures in different orientation and positioning techniques.

### Anatomy:

- ✓ Radius
- ✓ Ulna
- ✓ Carpals
- ✓ Scaphoid
- ✓ Phalanxes
- ✓ Major Muscles
- ✓ Major Tendons
- ✓ Static Blood Vessels

### Size & Weight:

- ✓ Phantom Size: 7 x 7 x 24 Inches, Weight: 7.7 Lbs (approx.).
- ✓ Shipment Size: 28 x 12 x 12 Inches, Weight: 13.2 Lbs (approx.)

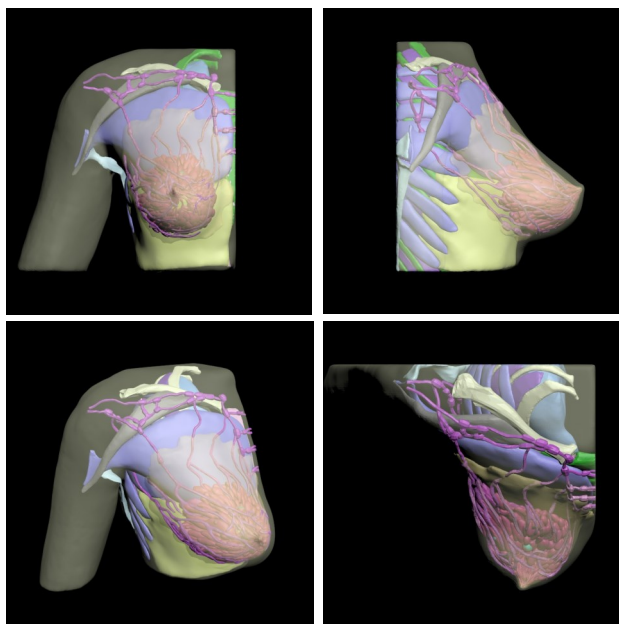
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Breast for X-Ray CT, US



BT-A02



### Description:

The Adult Breast for X-Ray CT, US 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 compatible with X-Ray/CT and US imaging, making it an ideal tool to study, research, test, and train on sonography and mammography techniques.

This phantom is a life-size female breast phantom with all bony and major organ structures. BT-A02 can be used to study several diagnostic procedures under X-Ray/CT & US in different orientation and positioning techniques. Upon request, this product can be customized with different pathologies .

### Anatomy:

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

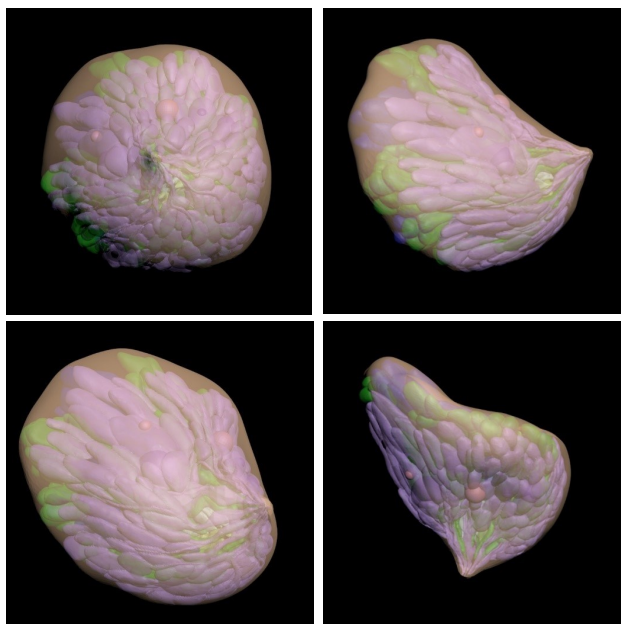
### Size & Weight:

- ✓ Phantom Size: 10 x 9 x 10 Inches, Weight: 11 Lbs (approx.).
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 45 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Breast (Simple) for X-Ray CT, US



BT-A03

### Description:

The Adult Breast (Simple) Phantom for X-Ray CT and Ultrasound is a realistic phantom. Its design is based on the average female anatomy of a human breast. This phantom is compatible with X-Ray CT and Ultrasound. This makes it an ideal tool to study, research, test, & calibrate medical imaging devices.

This phantom is a life-size female breast phantom with all major lobular structures. Upon request, this product can be customized to different pathologies as well as for specific training applications. However, BT-A03 can be used to study several diagnostic X-Ray CT and ultrasound procedures in different orientation and positioning techniques.

### Anatomy:

- ✓ Cartilage
- ✓ Major Fat Tissues
- ✓ Major Muscles
- ✓ Axillary Lymph Nodes
- ✓ Subcutaneous Adipose
- ✓ Retromammary Adipose
- ✓ Mammary Glands
- ✓ Two Spherical Tumors

### Size & Weight:

- ✓ Phantom Size: 4.7 x 4.7 x 4.7 Inches, Weight: 1.8 Lbs (approx.).
- ✓ Shipment Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

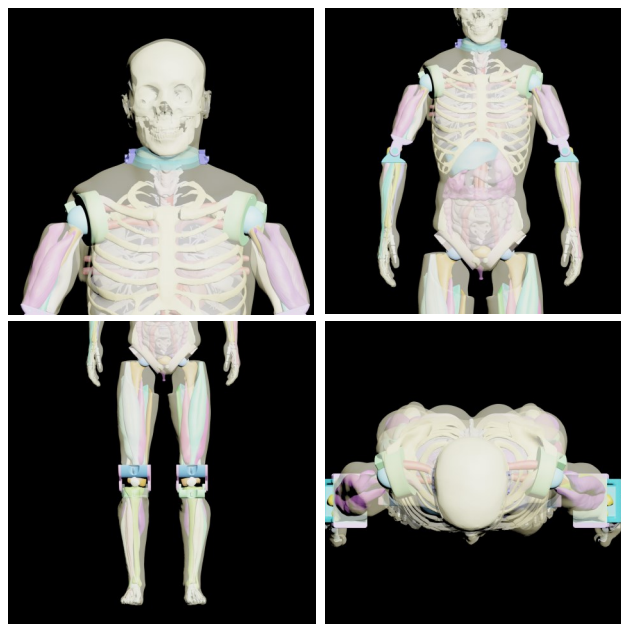
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Full Body (with Muscles) for X-Ray CT, US



FB-A04



### Description:

The Adult Full Body Phantom with Muscles is an X-Ray CT and US-compatible training product. Above other functionality listed below, this phantom was specifically enhanced to mimic the major muscle structure of arms and legs. The primary application of this phantom is to train and demonstrate various patient positioning techniques in radiology. This phantom can be ordered in a translucent or skin-colored version.

### Anatomy:

- ✓ Rotatable Shoulders
- ✓ Movable Hip, Knee, and Elbow Joints
- ✓ Adult Full Body (10 Parts)
  - Skull
  - Brain (with tissue)
  - Grey and White Matter
  - Air Cavities
  - Frontal Sinus with Air Gaps
  - Spine
  - Ribcage
  - Shoulders and Clavicles
  - Pelvis
  - Trachea
  - Heart
  - Lungs
  - Diaphragm
  - Liver
  - Gallbladder
  - Stomach
  - Kidneys
  - Spleen
  - Pancreas
  - Large and Small Intestines
  - Bladder
  - Prostate
  - Major Arm Muscles
  - Humerus
  - Elbow Joints
  - Radius and Ulna
  - Wrist with Fingers
  - Major Leg Muscles
  - Femur
  - Knee Joints
  - Tibia
  - Fibula
  - Foot with Toes

### Size & Weight:

- ✓ Size: 69 Inches, Weight: 154 Lbs (approx.).
- ✓ Size: 46 x 36 x 17 Inches, Weight: 199 Lbs (approx.).

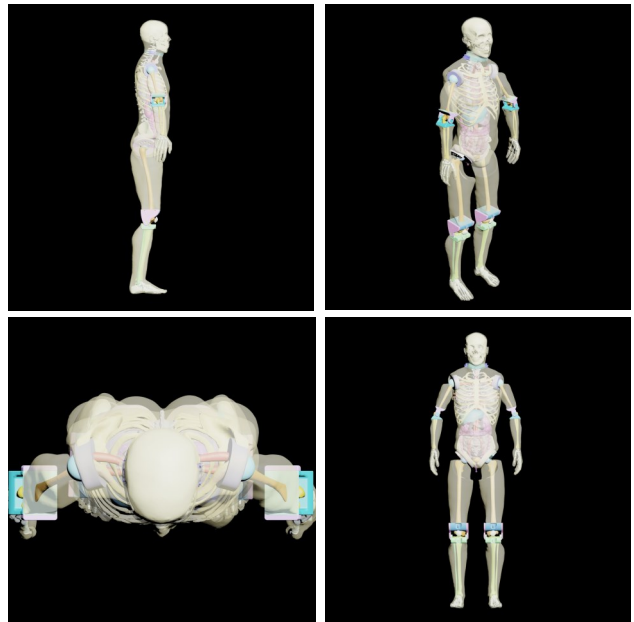
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Full Body for X-Ray CT, US



FB-A03



### Description:

This Adult Full Body Phantom is an X-Ray/CT and US-compatible training product. 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. This phantom can be ordered in a translucent or skin-colored version.

### Anatomy:

- ✓ Rotatable Shoulders
- ✓ Movable Hip, Knee, and Elbow Joints
- ✓ Adult Full Body (10 Parts)
  - Skull
  - Brain (with tissue)
  - Grey and White Matter
  - Air Cavities
  - Frontal Sinus with Air Gaps
  - Spine
  - Ribcage
  - Shoulders and Clavicles
  - Pelvis
  - Trachea
  - Heart
  - Lungs
  - Diaphragm
  - Liver
  - Gallbladder
  - Stomach
  - Kidneys
  - Spleen
  - Pancreas
  - Large and Small Intestines
  - Bladder
  - Prostate
  - Humerus
  - Elbow Joints
  - Radius and Ulna
  - Wrist with Fingers
  - Femur
  - Knee Joints
  - Tibia
  - Fibula
  - Foot with Toes

### Size & Weight:

- ✓ Size: 69 Inches, Weight: 154 Lbs (approx.).
- ✓ Size: 46 x 36 x 17 Inches, Weight: 199 Lbs (approx.).

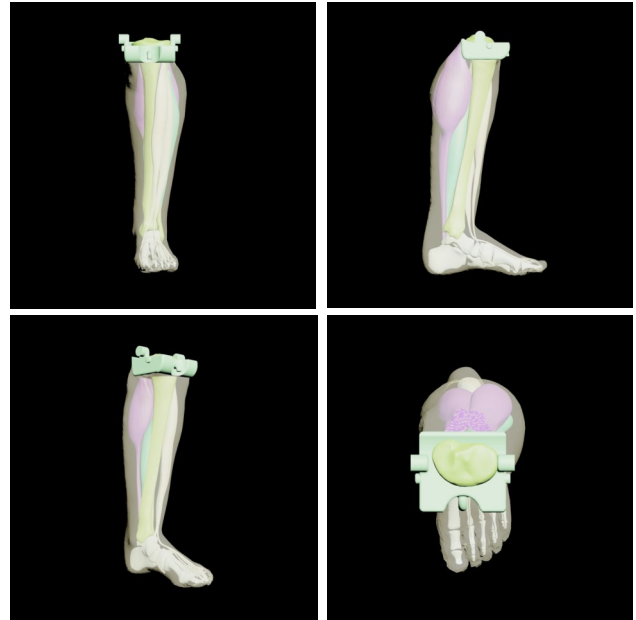
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Leg (Muscles) for X-Ray CT, US



LG-A02



### Description:

Adult Leg Phantom for X-Ray/CT and Ultrasound is a realistic phantom designed based on the average anatomy of a human male leg. It has all the essential bony and soft tissue features that make it an ideal tool to study, research, and test medical imaging devices.

The LG-A02 can be used to study several diagnostic X-Ray/CT & Ultrasound procedures in different orientation and positioning techniques. Upon request, this product can be customized with different pathologies as well as for specific training applications.

### Anatomy:

- ✓ Fibula Bone
- ✓ Tibia Bone
- ✓ Foot Bones
- ✓ Major Muscle Tissues
- ✓ Realistic Soft Body Tissue

### Size & Weight:

- ✓ Phantom Size: 38 x 10 x 7 Inches, Weight: 26.5 Lbs (approx.).
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 35 Lbs (approx.)

For more information about this product, please refer to our website.

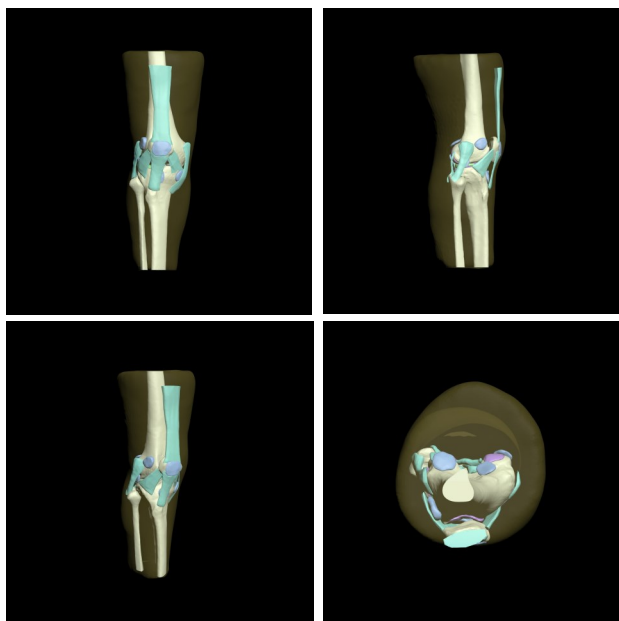
[Learn More](#)



## Adult Knee for X-Ray CT, US



KE-A04



### Description:

The Adult Knee phantom has a complex internal structure and anatomy, which are based on an average knee of an adult human male. The synthetic bones used in this phantom are made out of our patented material, which is best suited for X-Ray/CT and US imaging applications. The soft tissues, tendons, ligaments, and cartilage are made from realistic urethane-based tissue-mimicking materials.

### Anatomy:

- ✓ Partial Upper and Lower Leg
- ✓ Patella
- ✓ Meniscus:
  - Lateral Meniscus
  - Medial Meniscus
- ✓ Condyle:
  - Lateral Condyle Femoral
  - Medial Condyle Femoral
- ✓ Ligaments and Tendons:
  - Quadriceps Femoris Tendon
  - Patellar Ligament
  - Lateral Patellar Retinaculum
  - Medial Patellar Retinaculum
  - Anterior Cruciate Ligament
  - Posterior Cruciate Ligament
  - Arcuate Popliteal Ligament
  - Oblique popliteal Ligament
- ✓ Bursa:
  - Subtendinous Bursa (3)
  - Semimembranosus Bursa
  - Pes anserine Bursa
  - Infrapatellar Bursa
  - Prepatellar Bursa
  - Iliotibial Band Bursa

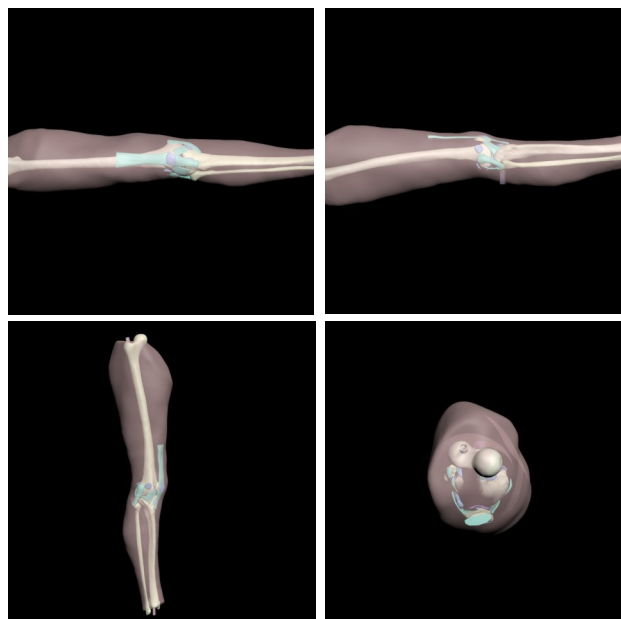
### Size & Weight:

- ✓ Size: 6 x 7 x 15 Inches, Weight: 18 Lbs (approx.).
- ✓ Size: 23 x 14 x 10 Inches, Weight: 26 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Knee (Extended) for X-Ray CT, US



KE-A02

### Description:

The Adult Knee (Extended) phantom is compatible with X-Ray CT and Ultrasound applications. This product features the anatomy of a right human knee with the addition of a thigh and calf. The synthetic bones in this phantom are made from our patented material. The soft tissues, tendons, ligaments, and cartilage are made from realistic urethane-based tissue-mimicking materials.

### Anatomy:

- ✓ Upper and Lower Leg
- ✓ Patella
- ✓ Meniscus:
  - Lateral Meniscus
  - Medial Meniscus
- ✓ Condyle:
  - Lateral Condyle Femoral
  - Medial Condyle Femoral
- ✓ Ligaments and Tendons:
  - Quadriceps Femoris Tendon
  - Patellar Ligament
  - Lateral Patellar Retinaculum
  - Medial Patellar Retinaculum
  - Anterior Cruciate Ligament
  - Posterior Cruciate Ligament
  - Arcuate Popliteal Ligament
  - Oblique popliteal Ligament
- ✓ Bursa:
  - Subtendinous Bursa (3)
  - Semimembranosus Bursa
  - Pes anserine Bursa
  - Infrapatellar Bursa
  - Prepatellar Bursa
  - Iliotibial Band Bursa

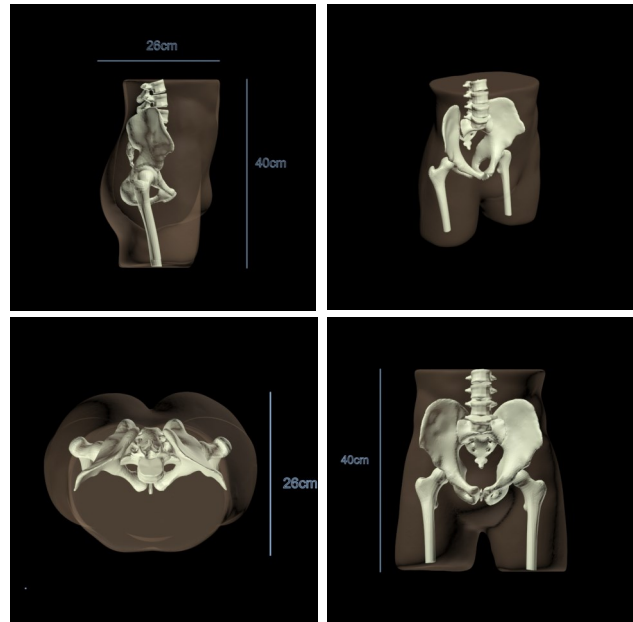
### Size & Weight:

- ✓ Size: 7 x 8 x 35 Inches, Weight: 26 Lbs (approx.).
- ✓ Size: 43 x 26 x 17 Inches, Weight: 50 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Pelvis for X-Ray CT, US



PE-A03

### Description:

The Adult Pelvis Phantom – Its structure & geometry is based on an average adult human male. It is made out of realistic soft tissue-mimicking material and patented synthetic bones suitable for X-Ray/CT and US imaging applications. It can be used as a tool to conduct medical imaging research, radiology training, testing, and calibration purposes. This product can be further customized to match our client's specific requirements.

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

### Anatomy:

- ✓ Spine from L5 to L2
- ✓ Pelvis Bone
- ✓ Partial Left and Right Femoral Bones

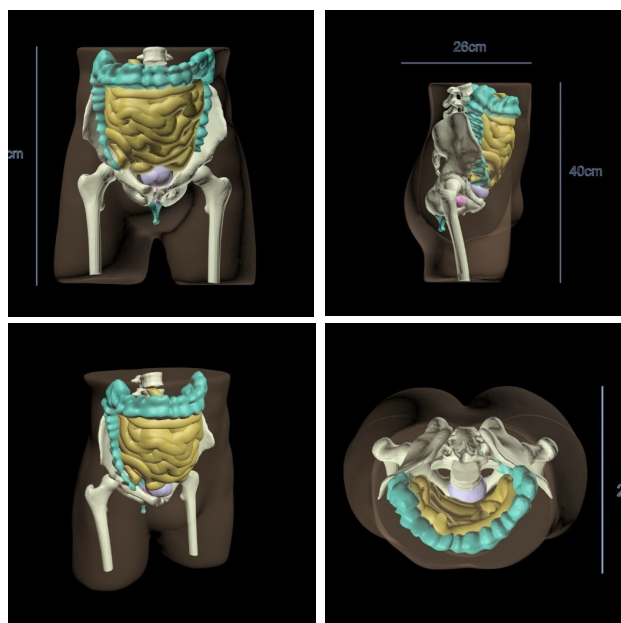
### Size & Weight:

- ✓ Phantom Size: 14 x 10 x 16 Inches, Weight: 48.5 Lbs (approx.)
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 88.2 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Pelvis with Prostate for X-Ray CT, US



PE-A04

### Description:

The Adult Pelvis with Prostate Phantom is built based on an average adult human male anatomy. It is made out of realistic soft tissue-mimicking materials and patented synthetic bones suitable for X-Ray/CT and US imaging applications. It can be used as a tool to conduct medical imaging research, radiology training, testing, and calibration purposes. This product can be further customized to match our client's specific requirements.

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

### Anatomy:

- ✓ Spine from L5 to L2
- ✓ Pelvis Bone
- ✓ Partial Left and Right Femoral Bones
- ✓ Large Intestine
- ✓ Rectum
- ✓ Prostate
- ✓ Bladder

### Size & Weight:

- ✓ Phantom Size: 14 x 10 x 16 Inches, Weight: 48.5 Lbs (approx.)
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 88.2 Lbs (approx.)

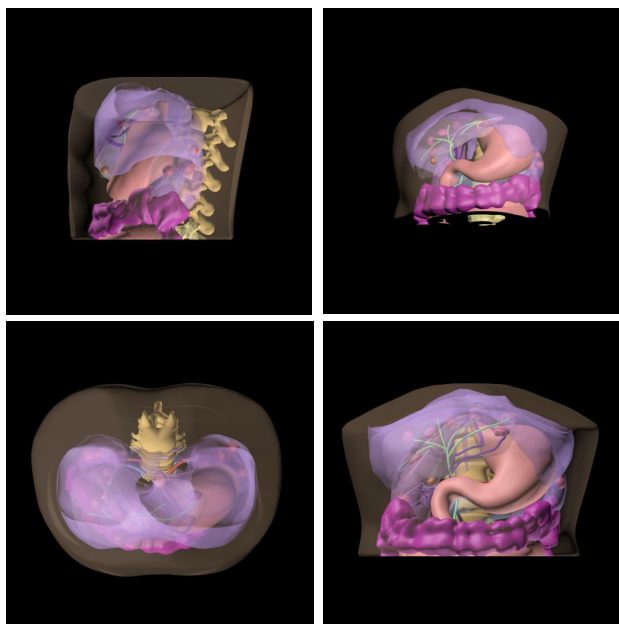
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Sectional Abdomen (Portable FAST Simulator) for X-Ray CT, US



US-A03



### Description:

Adult Sectional Abdomen for X-Ray CT, US is designed based on an average anatomy of an adult healthy human male. It is compatible with X-Ray/CT and Ultrasound. The bones are made from a realistic patented epoxy-based composite material with vertebrae that have a realistic three-layered structure with inner porosity.

This product is a translucent amber version (opaque, skin-colored version available upon request). An ideal phantom for training ultrasound technicians and other medical students.

### Anatomy:

- ✓ Partial Spine
- ✓ Diaphragm
- ✓ Liver (with vessels and bile duct)
- ✓ Stomach
- ✓ Kidneys (with vessels)
- ✓ Pancreas
- ✓ 9 Lesions
  - 1-2 cm in diameter
  - Spherical and non-spherical
  - Located in kidney and liver
- ✓ Soft Body Tissue

### Size & Weight:

- ✓ Phantom Size: 11 x 9 x 8 Inches, Weight: 22 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 30 Lbs (approx.)

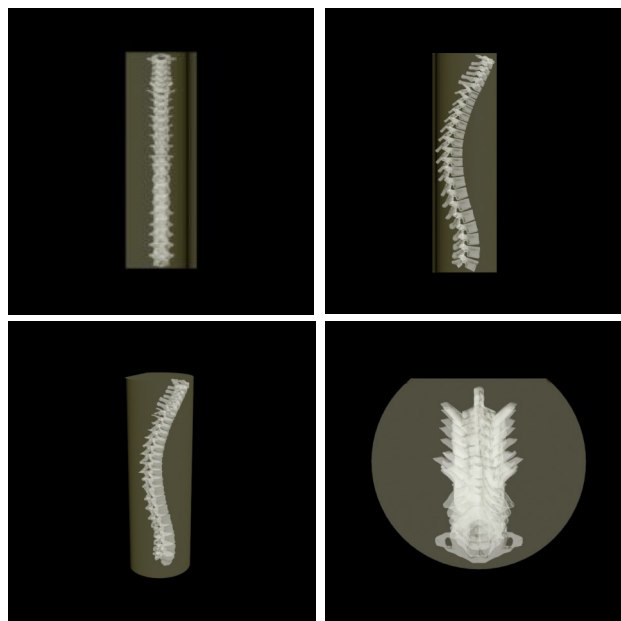
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Spine for X-Ray CT, US



SE-A02



### Description:

Adult Spine Phantom consists of 25 individual vertebrae assembled on top of each other and encased in a semi-cylindrical-shaped body-mimicking tissue. The vertebrae have a realistic three-layered structure, and their inner porosity can be adjusted according to the requirement of the particular project.

The Phantom is designed based on average human anatomy, and the bones are made out of realistic patented bone material that is suitable for Ultrasound and X-Ray/CT applications. It can be used for medical imaging research and treatment planning of various medical procedures (Upon request, it can be modified for a lumbar or spine lumbar practice phantom with soft tissue-mimicking material surrounding it).

The phantom can be further customized with water fillable spinal canal inside the vertebrae or with a prefilled spinal canal for medical imaging or research applications.

### Anatomy:

- ✓ Cervical Vertebrae (C1 – C7)
- ✓ Thoracic Vertebrae (T1 – T12)
- ✓ Lumbar Vertebrae (L1 – L5)

### Size & Weight:

- ✓ Phantom Size: 22 x 7 x 7 Inches, Weight: 30 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 34 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso (Advanced) for X-Ray CT, US



TO-A02



### Description:

Adult Human Torso (Advanced) with a beating heart is a lifelike, anatomically realistic, from neck to pelvic area phantom/simulator with all the essential organs present inside. This product includes a heart pump.

### Anatomy:

- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulders and Clavicles
- ✓ Pelvis
- ✓ Partial Femoral Bones
- ✓ Trachea
- ✓ Realistic Heart with:
  - 2 Atria, 2 Ventricles:
  - Right Ventricle
  - Left Ventricle
  - Right Atrium
  - Left Atrium
- ✓ Appendage Feature
- ✓ Aorta
- ✓ Jugular vessels
- ✓ Pulmonic and Pulmonary Veins
- ✓ Flexible Valvular Structures
- ✓ SVC
- ✓ IVC
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Gallbladder
- ✓ Stomach
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Large and Small Intestines
- ✓ Bladder
- ✓ Prostate
- ✓ Beating Heart
- ✓ Adjustable Heart Rate
- ✓ Pathologies (tumors, Hemorrhages, polyps, etc.)

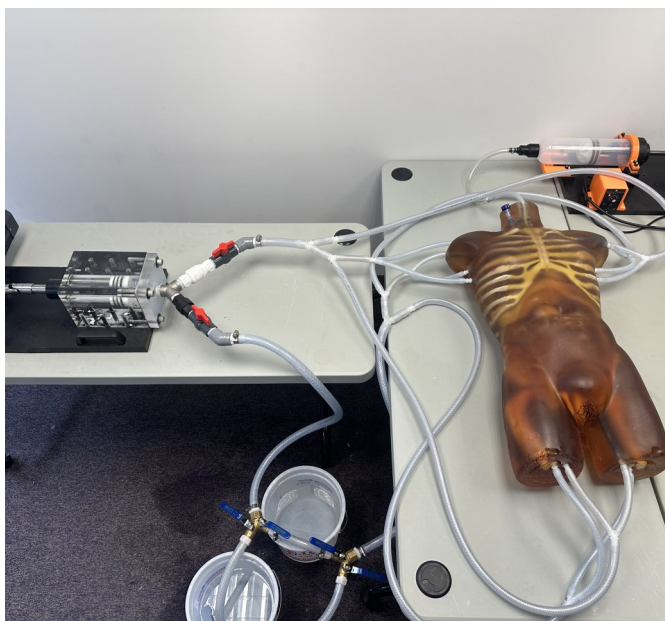
### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88 Lbs (approx.)
- ✓ Heart Pump Size: 36 x 12 x 8 Inches, Weight: 88 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso (Dynamic) for X-Ray CT, US



TO-A04



### Description:

The Adult Human Torso (Dynamic) phantom is a lifelike simulator compatible with US and X-Ray/CT. The phantom includes a realistic heart with a TPS heart pump and breathable lungs with a TPS lung pump.

### Anatomy:

- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulders and Clavicles
- ✓ Pelvis
- ✓ Partial Femoral Bones
- ✓ Trachea
- ✓ Realistic Heart with:
  - 2 Atria, 2 Ventricles:
  - Right Ventricle
  - Left Ventricle
  - Right Atrium
  - Left Atrium
- ✓ Appendage Feature
- ✓ Aorta
- ✓ Jugular vessels
- ✓ Pulmonic and Pulmonary Veins
- ✓ Flexible Valvular Structures
- ✓ SVC
- ✓ IVC
- ✓ Breathable Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Gallbladder
- ✓ Stomach
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Large and Small Intestines
- ✓ Bladder
- ✓ Prostate
- ✓ Beating Heart
- ✓ Adjustable Heart Rate

### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88 Lbs (approx.)
- ✓ Torso Shipment: 47 x 26 x 18 Inches, Weight: 144 Lbs (approx.)

For more information about this product, please refer to our website.

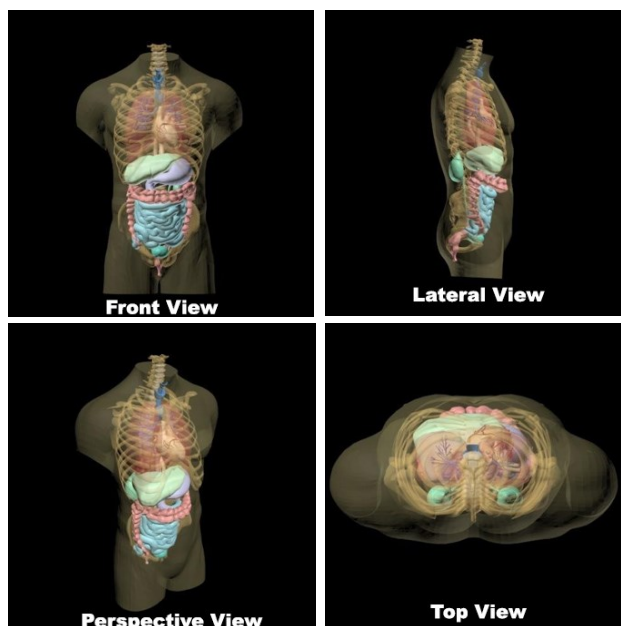
[Learn More](#)



## Adult Torso (Skin) for X-Ray CT, US



US-S01



### Description:

Adult Torso (Skin) for X-Ray CT, US 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.

The phantom can be customized with any pathologies for learning the techniques of FAST (focused assessment with sonography for trauma), FAMUS (Focused Acute Medicine Ultrasound), and any other procedural training (Pericardial effusion, etc.)

### Anatomy:

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

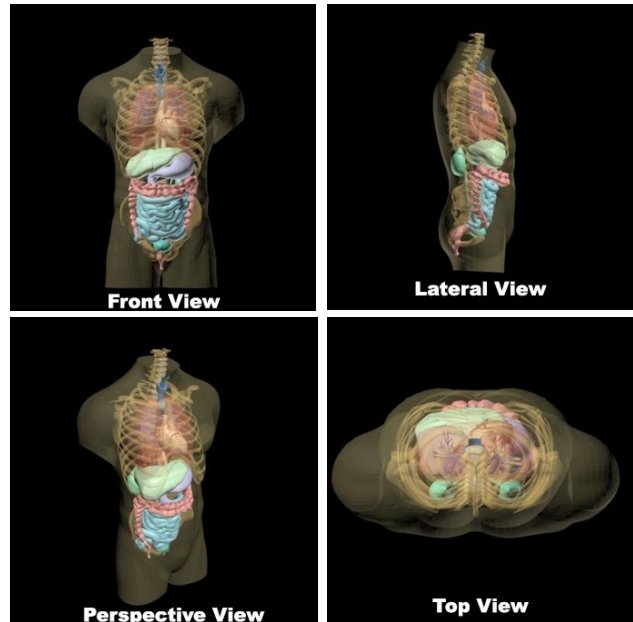
### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88.2 Lbs (approx.).
- ✓ Shipment Size: 47 x 26 x 18 Inches, Weight: 144 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso for X-Ray CT, US



US-A02

### Description:

Adult Torso for X-Ray CT, US 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.

The phantom can be customized with any pathologies for learning the techniques of FAST (focused assessment with sonography for trauma), FAMUS (Focused Acute Medicine Ultrasound), and any other procedural training (Pericardial effusion, etc.)

### Anatomy:

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

### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88.2 Lbs (approx.).
- ✓ Shipment Size: 47 x 26 x 18 Inches, Weight: 144 Lbs (approx.)

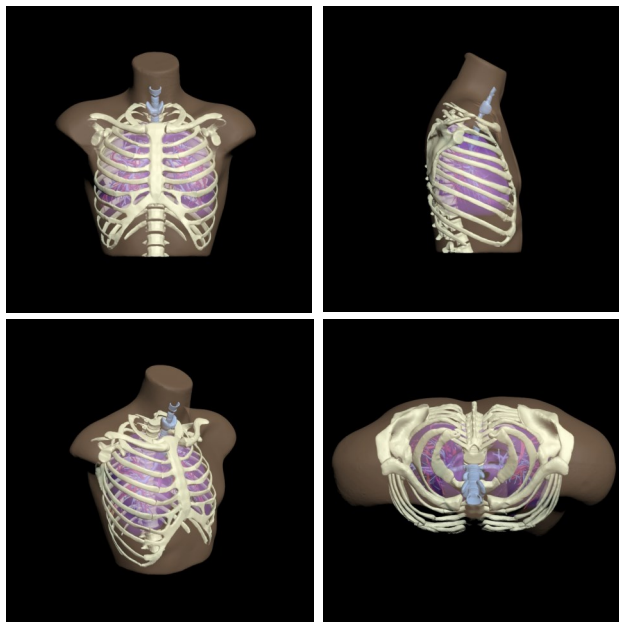
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Thorax for X-Ray CT, US



TX-A02



### Description:

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 & 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 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.

### Anatomy:

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

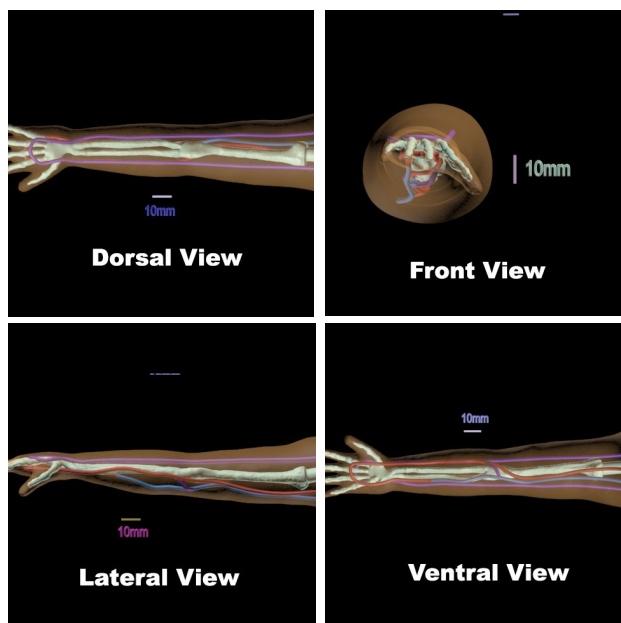
### Size & Weight:

- ✓ Phantom Size: 18 x 10 x 18 Inches, Weight: 58 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 90 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Arm for X-Ray CT, US



AM-S01

### Description:

Newborn Arm Phantom is designed based on the anatomy of an average healthy newborn baby and it is made from highly realistic materials that make it suitable for ultrasound-guided IV training for nurses and physicians.

The phantom is an ideal investment for learning the skills of giving an intravenous injection on a baby's arm under ultrasound guidance, and it is made from durable and long-lasting materials. The blood vessels are permanently prefilled with an ultra-soft rubber-like material so the phantom will never leak or require any extra blood-mimicking fluid.

The baby arm phantom is specifically designed for ultrasound-guided needle placement without involving the blood drawing procedure.

### Anatomy:

- ✓ Blood Vessels
- ✓ IV Training Feature
- ✓ Arm Bones (Ulna & Radius)
- ✓ Skin-Mimicking Material

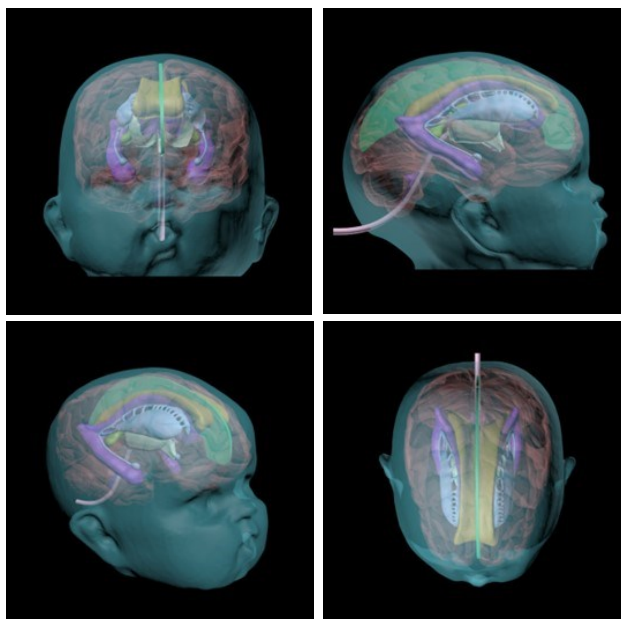
### Size & Weight:

- ✓ Phantom Size: 8 x 2 x 2 Inches, Weight: 1 Lbs (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Head (Complex) for X-Ray CT, US



HD-N01

### Description:

Newborn Head (Complex) Phantom for diagnostic medical imaging training and POCUS. The phantom is designed based on an average newborn head and is made out of realistic tissue-mimicking materials suitable for Ultrasound and X-Ray CT imaging.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Newborn Brain
- ✓ Corpus Callosum
- ✓ Falx
- ✓ Brain Ventricles
- ✓ Septum Pellucidum
- ✓ Caudate
- ✓ Putamen
- ✓ Thalamus
- ✓ Choroid Plexus
- ✓ Cerebellum & Pons

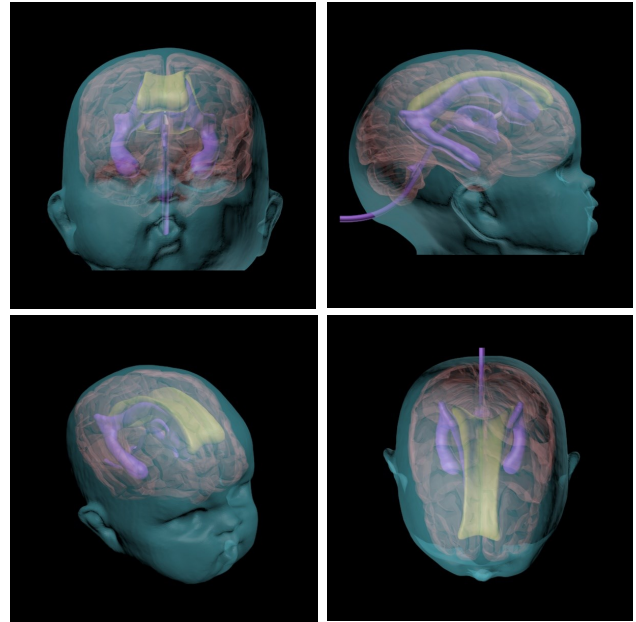
### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 4 Lbs (approx.).
- ✓ Product Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Head (Simple) for X-Ray CT, US



HD-N02

### Description:

The phantom is designed based on an average newborn head and is made out of realistic tissue-mimicking materials suitable for Ultrasound imaging. The brain in this model has been specifically simplified to achieve the most cost-efficient training solution.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Newborn Brain
- ✓ Corpus Callosum
- ✓ Brain Ventricles

### Size & Weight:

- ✓ Phantom Size: 5 x 6 x 5 Inches, Weight: 4 Lbs (approx.).
- ✓ Product Size: 12 x 10 x 10 Inches, Weight: 6 Lbs (approx.)

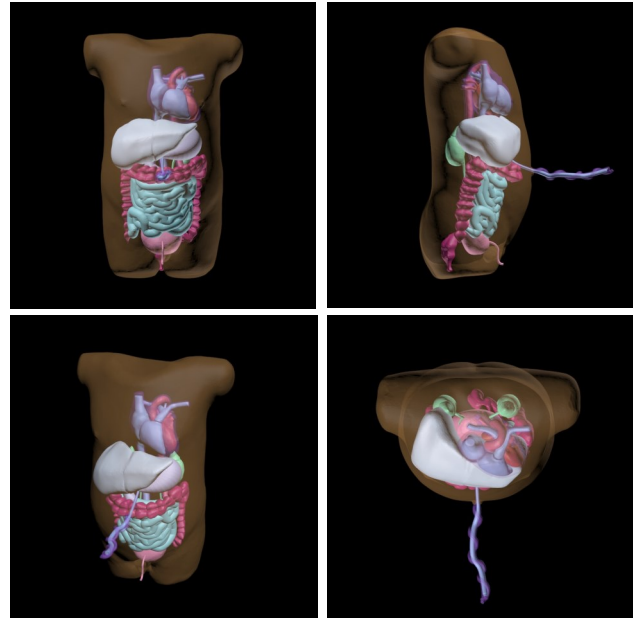
For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Torso (Advanced) for X-Ray CT, US



AN-N01



### Description:

The design of this Advanced Newborn Torso phantom is based on an average newborn torso. It is made from realistic tissue-mimicking materials suitable for Ultrasound and X-Ray imaging. The phantom has a water-fillable umbilical cord and bladder, which can be both used for catheterization training under ultrasound guidance.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Heart
- ✓ Aorta
- ✓ Inferior Vena Cava
- ✓ Liver
- ✓ Kidneys
- ✓ Stomach
- ✓ Large and Small Intestines
- ✓ Water Fillable Bladder
- ✓ Water fillable Umbilical Cord
- ✓ Realistic Body Tissue

### Size & Weight:

- ✓ Phantom Size: 6 x 5 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 8 Lbs (approx.)

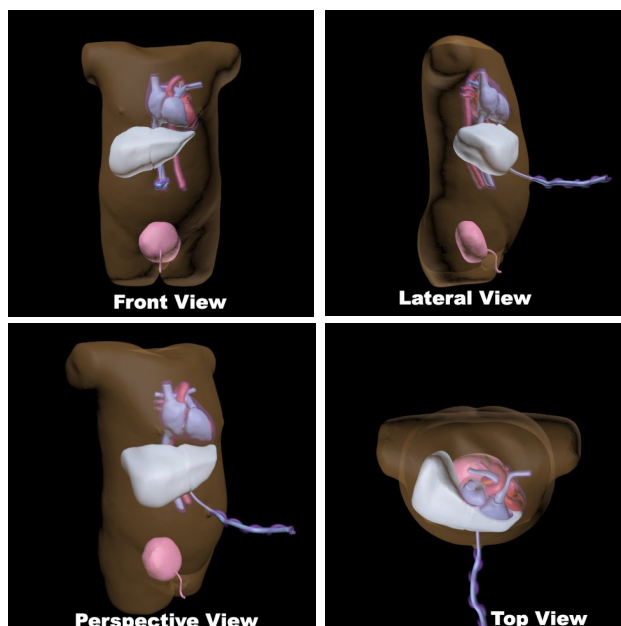
For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Torso for X-Ray CT, US



US-S02



### Description:

The design of our standard newborn torso phantom is based on an average newborn torso. It is made from realistic tissue-mimicking materials with ultrasound speckles suitable for Ultrasound and X-Ray/CT imaging methods. The phantom has a water-fillable umbilical cord and bladder, which can both be used for catheterization training under ultrasound guidance.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Heart
- ✓ Aorta
- ✓ Inferior Vena Cava
- ✓ Water Fillable Umbilical Cord
- ✓ Liver
- ✓ Water Fillable Bladder
- ✓ Realistic Body Tissue

### Size & Weight:

- ✓ Phantom Size: 6 x 5 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 8 Lbs (approx.)

For more information about this product, please refer to our website.

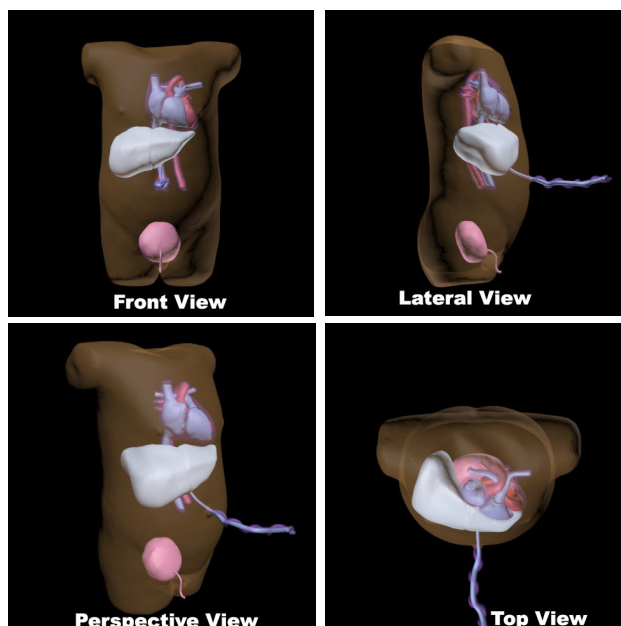
[Learn More](#)



## Newborn Torso (Transparent) for X-Ray CT, US



US-N02



### Description:

The design of this Newborn Torso phantom is based on an average newborn torso. It is made from realistic tissue-mimicking materials suitable for Ultrasound and X-Ray/CT imaging. The phantom has a water-fillable umbilical cord and bladder, which can be both used for catheterization training under ultrasound guidance.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Hear
- ✓ Aorta
- ✓ Inferior Vena Cava
- ✓ Water Fillable Umbilical Cord
- ✓ Liver
- ✓ Water Fillable Bladder
- ✓ Realistic Body Tissue

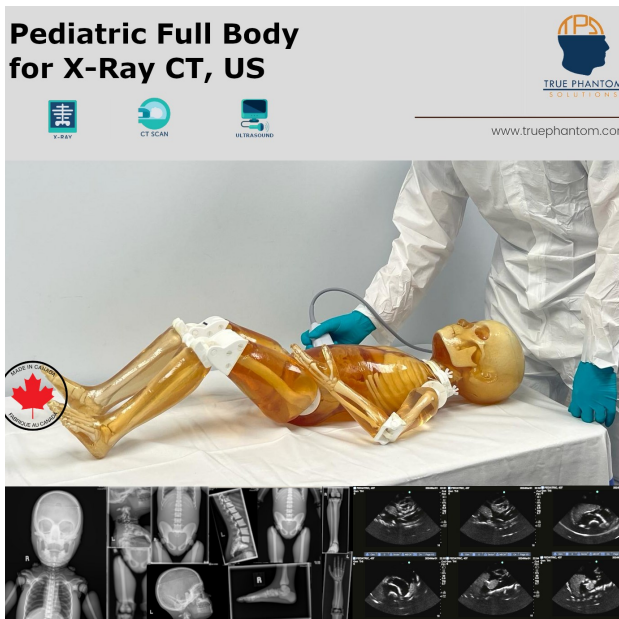
### Size & Weight:

- ✓ Phantom Size: 6 x 5 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 8 Lbs (approx.)

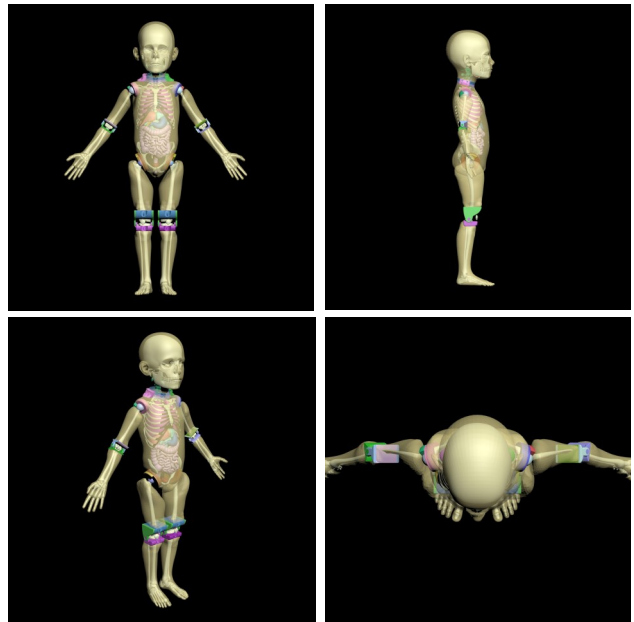
For more information about this product, please refer to our website.

[Learn More](#)

## Pediatric Full Body for X-Ray CT, US



FB-P02



### Description:

4-Year-old Pediatric Full Body Phantom is an X-Ray/CT and US-compatible training product. It is primarily used to train various patient positioning techniques. Often purchased by medical schools and teaching hospitals to train their radiology students and other medical professionals.

### Anatomy:

- |   |                           |                              |
|---|---------------------------|------------------------------|
| ✓ Pediatric Full Body                     | – Ribcage                 | – Large and Small Intestines |
| ✓ Realistic Body Tissue                   | – Shoulders and Clavicles | – Bladder                    |
| ✓ Rotatable Shoulders                     | – Pelvis                  | – Prostate                   |
| ✓ Moveable Hip Joints, Knees, and Elbows  | – Trachea                 | – Humerus                    |
| ✓ Detachable Head, Torso, and Limbs       | – Heart                   | – Elbow Joints               |
| ✓ Customizable with Different Pathologies | – Lungs                   | – Radius and Ulna            |
| – Skull                                   | – Diaphragm               | – Wrist with Fingers         |
| – Brain (with Gray Matter)                | – Liver                   | – Femur                      |
| – Spine                                   | – Gallbladder             | – Knee Joints                |
|   | – Stomach                 | – Tibia                      |
|   | – Kidneys                 | – Fibula                     |
|   | – Spleen                  | – Foot with Toes             |
|   | – Pancreas                |                              |

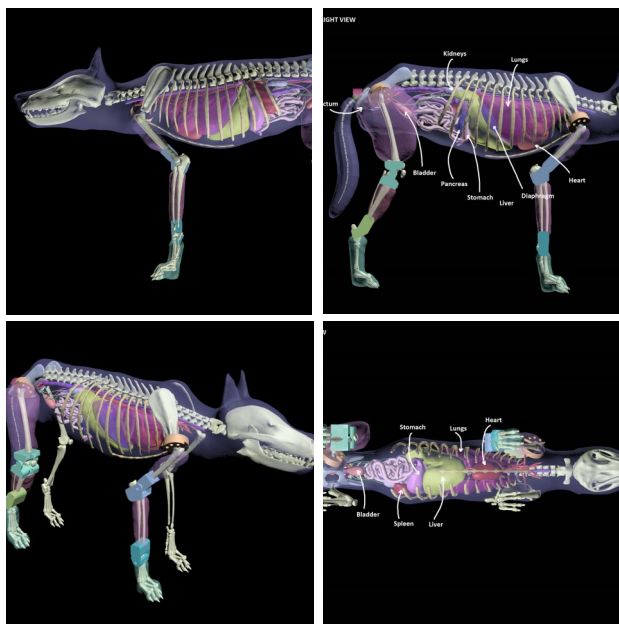
### Size & Weight:

- ✓ Phantom Size: 40 x 8 x 27 Inches, Weight: 40 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 99 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Dog Phantom for X-Ray CT, US



DG-A01

### Description:

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 imaging. It has all the right features to be an ideal teaching tool for sonographers, radiographers, veterinary residents, and other vet professionals.

### Anatomy:

- ✓ Dog Skull
- ✓ Jaw Bone
- ✓ Realistic Dog Brain
- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulder (Scapula Bones)
- ✓ Pelvis
- ✓ Heart
- ✓ Blood Vessels Connected to Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Stomach
- ✓ Liver and Gallbladder
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Arteries for Kidneys
- ✓ Bladder
- ✓ Ureters and Uterine
- ✓ Large and Small Intestine
- ✓ Arm (Humerus)
- ✓ Elbow Joints
- ✓ Forearm (Radius, Ulna)
- ✓ Paw (Wrist with Fingers)
- ✓ Thigh (Femur)
- ✓ Knee Joints
- ✓ Leg (Tibia, Fibula)
- ✓ Paw (Finger Bones)
- ✓ Tail Bone
- ✓ Skin-Mimicking Material

### Size & Weight:

- ✓ Phantom Size: 33 x 18 x 6 Inches, Weight: 40 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 99 Lbs (approx.)

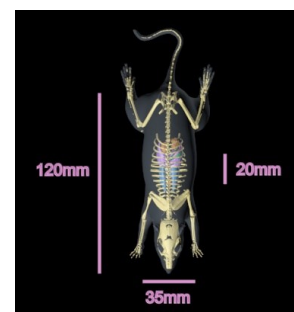
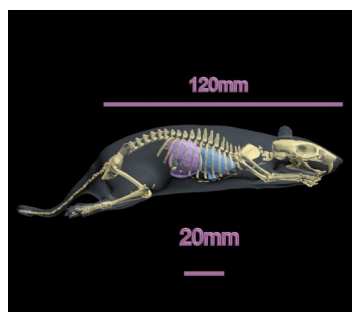
For more information about this product, please refer to our website.

[Learn More](#)

## Rat Phantom (Anatomical) for X-Ray CT, US



RT-A02



### Description:

Rat Phantom (anatomical) is built based on an average anatomy of a rat (mouse) and it is suitable for either X-Ray/CT and Ultrasound OR X-Ray/CT and MRI imaging methods. Furthermore, the phantom can be additionally customized with extra chambers and/or other features to excel in a selected application. The size, shape, and internal features can also be modified in terms of shape and properties to fit the needs of any particular biomedical research project.

### Anatomy:

- ✓ Complete Rat Skeleton
- ✓ Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Kidneys
- ✓ Pancreas
- ✓ Spleen

### Size & Weight:

- ✓ Phantom Size: 7 x 3 x 2 Inches, Weight: 1 Lb (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs (approx.).

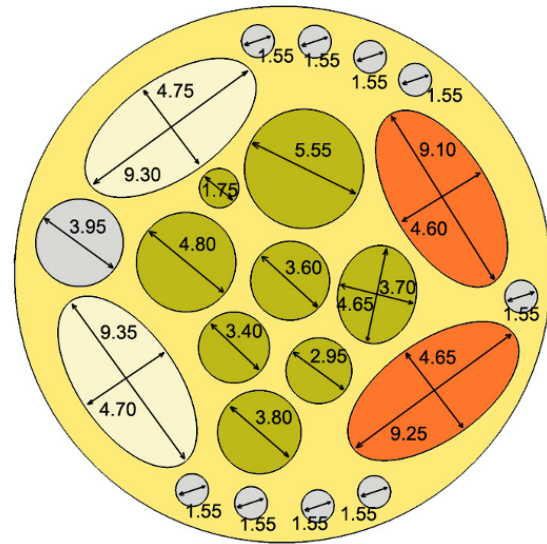
For more information about this product, please refer to our website.

[Learn More](#)

## Rat Phantom (Cylindrical) for X-Ray CT, US



RT-C03



\*All units are in millimeters

### Description:

Rat Phantom (Cylindrical) is designed to mimic complex rat anatomy in a form of a simple cylinder. It is a powerful tool that can be used for testing and calibration-related work of various medical imaging devices. The cylindrical phantom has a 27mm diameter and 70mm height, which correspond to the dimensions of small animals (i.e. a laboratory rat/mouse.).

### Anatomy:

- ✓ Soft Body Tissue – for better imaging results and optical transparency, we set this tissue to be transparent and to have no speckles.
- ✓ Organs without Speckles – those are organs which are softer than the surrounding body tissue. They appear brighter on T2-weighted MRI images.
- ✓ Organs with Speckles – those are the organs with higher stiffness and density (i.e. muscles). They appear brighter on T2-weighted MRI images.
- ✓ Cartilage Tissue – very stiff and much more attenuative tissue than the organs and body tissue. It appears darker on T2-weighted MRI images.
- ✓ Soft Organs with Speckles – those are the softest organs in the phantom. They appear the brightest in the phantom on T2-weighted MRI images (i.e. kidneys, liver, etc.).

### Size & Weight:

- ✓ Phantom Size: 1 x 1 x 3 Inches, Weight: 1 Lb (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

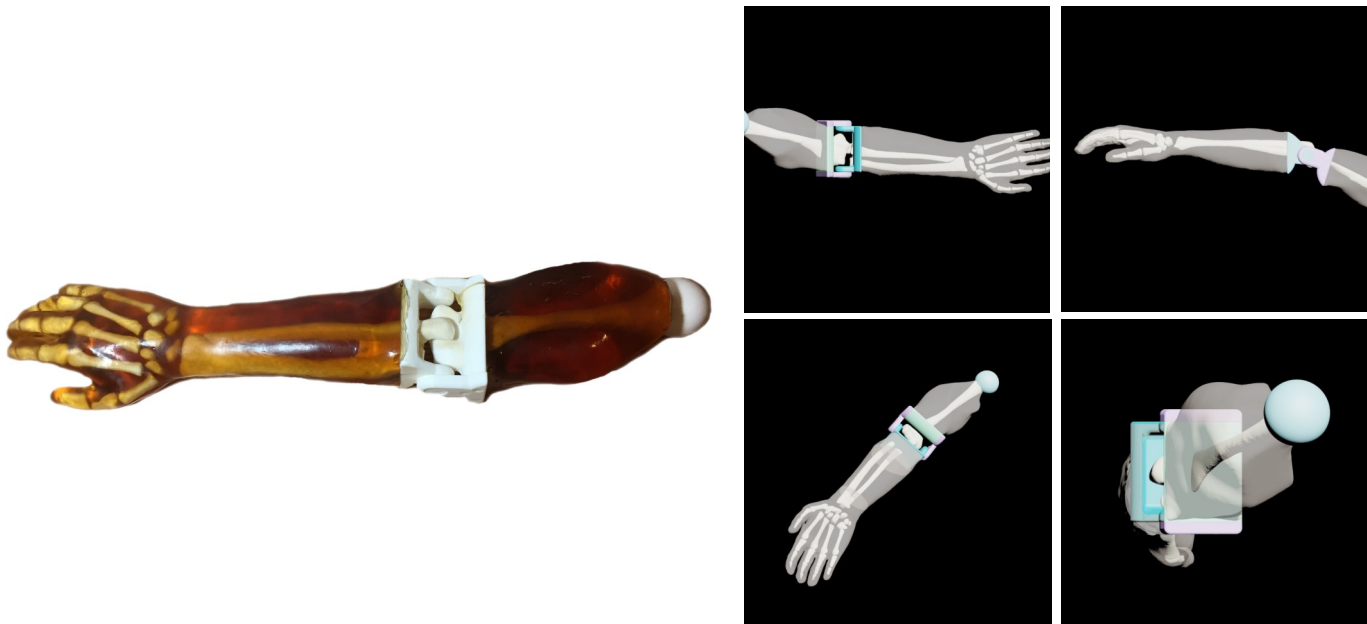
# Product Catalog



**TRUE PHANTOM**  
**SOLUTIONS**

## X-Ray CT, MRI

## Adult Arm for X-Ray CT, MRI



AR-A01

### Description:

Adult Arm for X-Ray/CT and MRI is a part of our Adult Full Body Phantom for X-RAY/CT and MRI training [FB-A01] that can be purchased independently.

This X-Ray/CT and MRI Arm Phantom can be used to take x-ray images of the full arm. The model includes synthetic bones cast individually from our realistic patented bone-mimicking material. The X-Ray Arm Model is perfect for radiology schools for training and learning different settings of X-RAY without the danger of exposing an actual patient to harmful radiation.

The bones are embedded in a realistic tissue-mimicking material that can be either transparent or opaque. The X-Ray Models may differ in size and shape. Due to production technology, there may be discoloring inside the phantom. This is related to the production method and it does not affect performance of the phantom.

### Anatomy:

- ✓ Arm (Humerus)
- ✓ Elbow Joints
- ✓ Forearm (Radius, Ulna)
- ✓ Hand (Wrist with Fingers)

### Size & Weight:

- ✓ Phantom Size: 7 x 7 x 24 Inches, Weight: 7.7 Lbs (approx.).
- ✓ Shipment Size: 28 x 12 x 12 Inches, Weight: 13.2 Lbs (approx.)

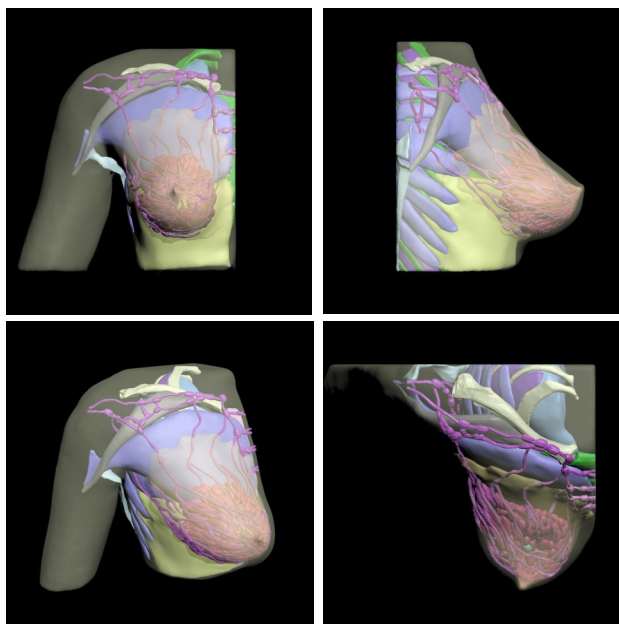
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Breast for X-Ray CT, MRI



BT-A01



### Description:

The Adult Breast for X-Ray CT, MRI is a realistic phantom that is designed based on the average anatomy of a female breast, and it contains all the essential bones and organs. This phantom is compatible with X-Ray/CT and MRI imaging, which makes it an ideal tool to study, research, and test medical imaging devices.

This phantom is a life-size female breast phantom with all bony and major organ structures. BT-A01 can be used to study several diagnostic procedures under X-Ray/CT & MRI in different orientation and positioning techniques. Upon request, this product can be customized to different pathologies as well as for specific training applications.

### Anatomy:

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

### Size & Weight:

- ✓ Phantom Size: 10 x 9 x 10 Inches, Weight: 11 Lbs (approx.).
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 45 Lbs (approx.)

For more information about this product, please refer to our website.

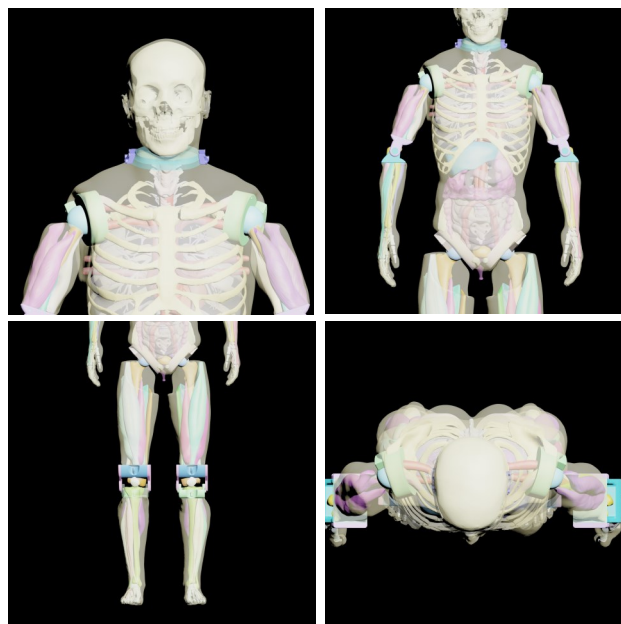
[Learn More](#)



## Adult Full Body (with Muscles) for X-Ray CT, MRI



FB-A02



### Description:

Adult Full Body Phantom with Muscles is an X-Ray/CT and MRI-compatible training product. 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. This phantom can be ordered in a translucent or skin-colored version.

### Anatomy:

- ✓ Rotatable Shoulders
- ✓ Movable Hip, Knee, and Elbow Joints
- ✓ Adult Full Body (10 Parts)
  - Skull
  - Brain (with tissue)
  - Grey and White Matter
  - Air Cavities
  - Frontal Sinus with Air Gaps
  - Spine
  - Ribcage
  - Shoulders and Clavicles
  - Pelvis
  - Trachea
  - Heart
  - Lungs
  - Diaphragm
  - Liver
  - Gallbladder
  - Stomach
  - Kidneys
  - Spleen
  - Pancreas
  - Large and Small Intestines
  - Bladder
  - Prostate
  - Major Arm Muscles
  - Humerus
  - Elbow Joints
  - Radius and Ulna
  - Wrist with Fingers
  - Major Leg Muscles
  - Femur
  - Knee Joints
  - Tibia
  - Fibula
  - Foot with Toes

### Size & Weight:

- ✓ Phantom Size: 69 Inches, Weight: 154 Lbs (approx.).
- ✓ Shipment Size: 46 x 36 x 17 Inches, Weight: 199 Lbs (approx.).

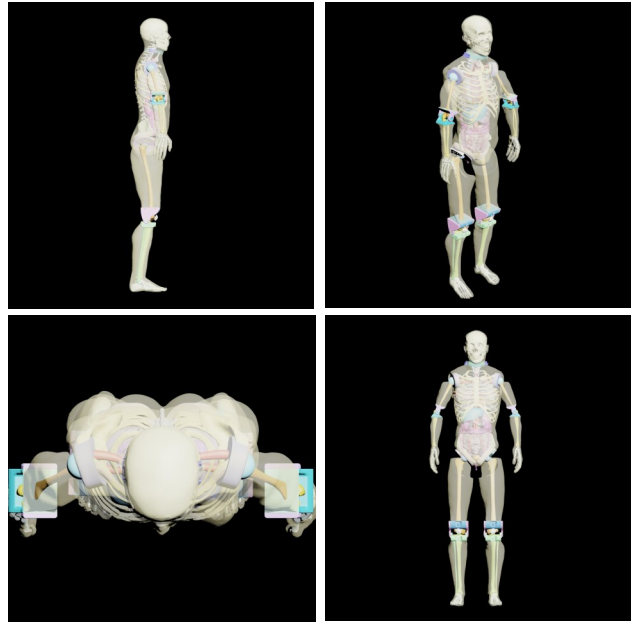
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Full Body for X-Ray CT, MRI



SKU: FB-A01



### Description:

Adult Full Body Phantom is an X-Ray/CT and MRI-compatible training product. 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. This phantom can be ordered in a translucent or skin-colored version.

### Anatomy:

- ✓ Rotatable Shoulders
- ✓ Movable Hip, Knee, and Elbow Joints
- ✓ Adult Full Body (10 Parts)
  - Skull
  - Brain (with tissue)
  - Grey and White Matter
  - Air Cavities
  - Frontal Sinus with Air Gaps
  - Spine
  - Ribcage
  - Shoulders and Clavicles
  - Pelvis
- Trachea
- Heart
- Lungs
- Diaphragm
- Liver
- Gallbladder
- Stomach
- Kidneys
- Spleen
- Pancreas
- Large and Small Intestines
- Bladder
- Prostate
- Humerus
- Elbow Joints
- Radius and Ulna
- Wrist with Fingers
- Femur
- Knee Joints
- Tibia
- Fibula
- Foot with Toes

### Size & Weight:

- ✓ Phantom Size: 69 Inches, Weight: 154 Lbs (approx.).
- ✓ Shipment Size: 46 x 36 x 17 Inches, Weight: 199 Lbs (approx.).

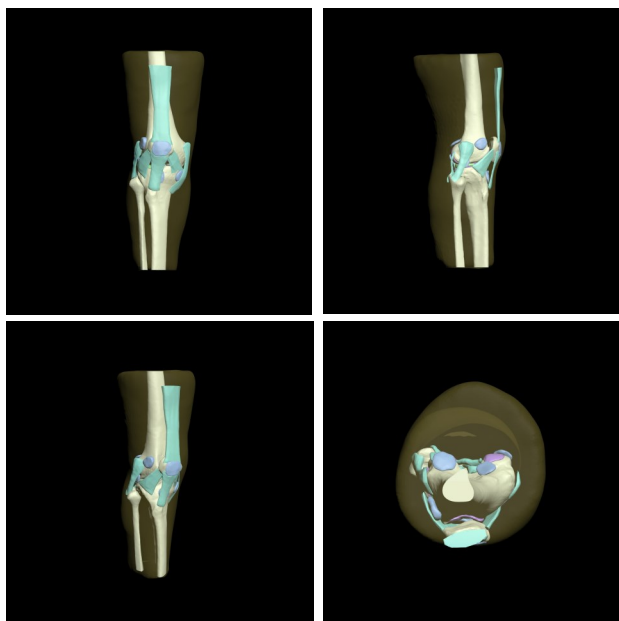
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Knee for X-Ray CT, MRI



KE-A03



### Description:

The phantom's structure and geometry is based on an average adult human knee. The synthetic bones used in this phantom are made out of our patented bone material and the soft tissues are cast individually from our urethane-based tissue mimicking materials. The phantom can be used as a tool to conduct medical imaging research, radiology training, testing, and calibration-related work.

### Anatomy:

- ✓ Partial Upper and Lower Leg
- ✓ Patella
- ✓ Meniscus:
  - Lateral Meniscus
  - Medial Meniscus
- ✓ Condyle:
  - Lateral Condyle Femoral
  - Medial Condyle Femoral
- ✓ Ligaments and Tendons:
  - Quadriceps Femoris Tendon
  - Patellar Ligament
  - Lateral Patellar Retinaculum
  - Medial Patellar Retinaculum
  - Anterior Cruciate Ligament
  - Posterior Cruciate Ligament
  - Arcuate Popliteal Ligament
  - Oblique popliteal Ligament
- ✓ Bursa:
  - Subtendinous Bursa (3)
  - Semimembranosus Bursa
  - Pes anserine Bursa
  - Infrapatellar Bursa
  - Prepatellar Bursa
  - Iliotibial Band Bursa

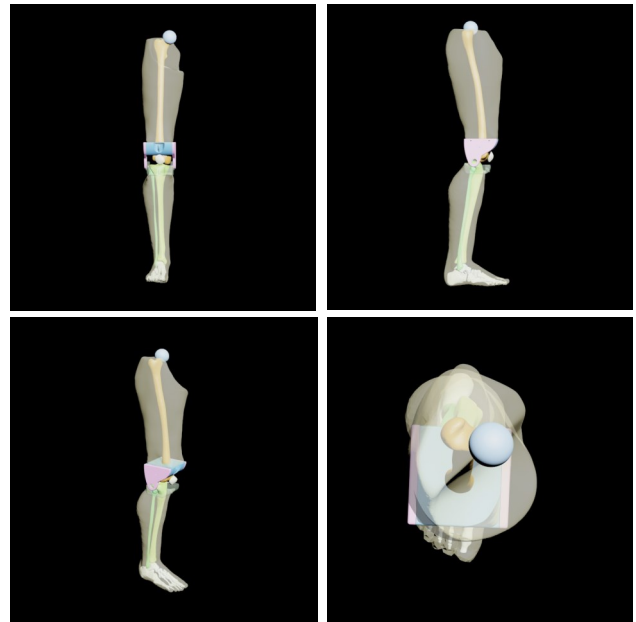
### Size & Weight:

- ✓ Phantom Size: 6 x 7 x 15 Inches, Weight: 18 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 26 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Leg for X-Ray CT, MRI



LG-A01

### Description:

Adult Leg for X-Ray/CT and MRI is a part of our Adult Full Body Phantom for X-RAY/CT and MRI training [FB-A01] that can be purchased independently.

This X-Ray/CT and MRI Leg Phantom can be used to take X-Ray images of the full leg. The model includes synthetic bones made out of realistic patented bone-mimicking material. The X-Ray Leg Model is perfect for radiology schools for training and learning different settings of X-Ray without the danger of exposing an actual patient to harmful radiation.

The leg phantom has a joint at the knee for flexibility and motion. It connects the lower leg with the upper leg (thigh).

### Anatomy:

- ✓ Thigh (Femur)
- ✓ Knee Joint
- ✓ Leg (Tibia, Fibula)
- ✓ Foot (Toe Bones)

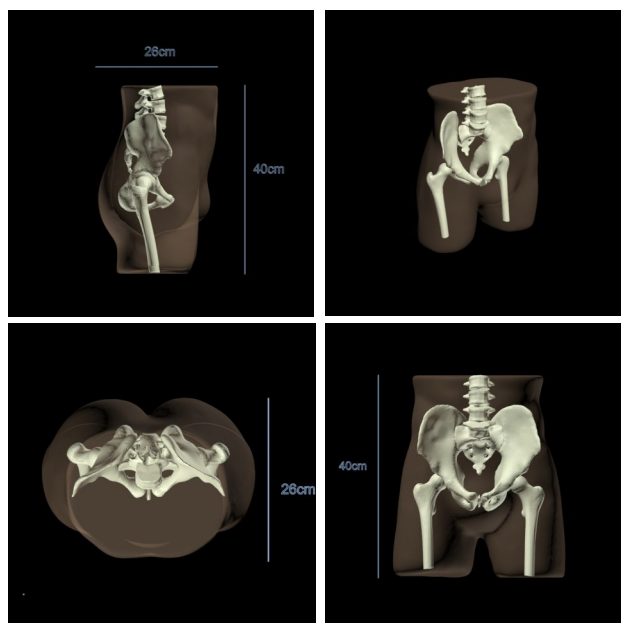
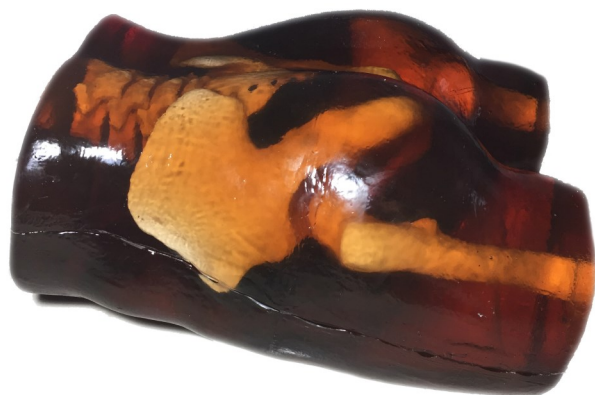
### Size & Weight:

- ✓ Phantom Size: 38 x 10 x 7 Inches, Weight: 27 Lbs (approx.).
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 35 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Pelvis for X-Ray CT, MRI



PE-A01

### Description:

The Adult Pelvis Phantom's structure and geometry is designed based on an average adult human (male). It is made out of realistic patented bone material that is suitable for X-Ray/CT and MRI imaging applications. It can be used as a tool to conduct medical imaging research, radiology training, testing, and calibration-related purposes. This product can be further customized to match our client's specific requirements.

The bones will consist of a realistic three-layered structure with inner porosity, which can be adjusted according to the requirement of wide variety of projects. The phantom can also be customized in size and shape (i.e. based on any individual's CT scan).

### Anatomy:

- ✓ Spine from L5 to L2
- ✓ Pelvis Bone
- ✓ Partial Left and Right Femoral Bones

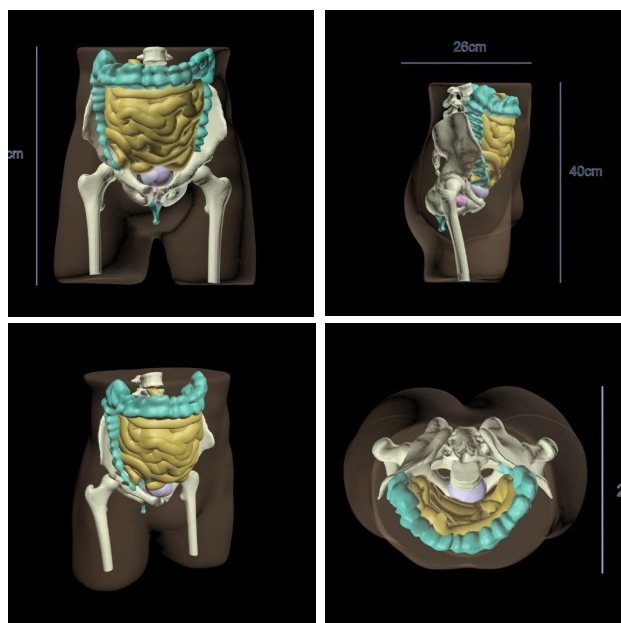
### Size & Weight:

- ✓ Phantom Size: 14 x 10 x 16 Inches, Weight: 48.5 Lbs (approx.)
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 88.2 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Pelvis with Prostate for X-Ray CT, MRI



PE-A02

### Description:

The Adult Pelvis Prostate Phantom's structure and geometry is designed based on an average adult human (male). It is made out of realistic patented bone material that is suitable for X-RAY CT and MR imaging applications. It can be used as a tool to conduct medical imaging research, radiology training, testing, and calibration purposes.

The bones will consist of a realistic three-layered structure with inner porosity, which can be adjusted according to the requirement of the particular project.

### Anatomy:

- ✓ Spine from L5 to L2
- ✓ Pelvis Bone
- ✓ Partial Left and Right Femoral Bones
- ✓ Large Intestine
- ✓ Rectum
- ✓ Prostate
- ✓ Bladder

### Size & Weight:

- ✓ Phantom Size: 14 x 10 x 16 Inches, Weight: 48.5 Lbs (approx.)
- ✓ Shipment Size: 36 x 24 x 12 Inches, Weight: 88.2 Lbs (approx.)

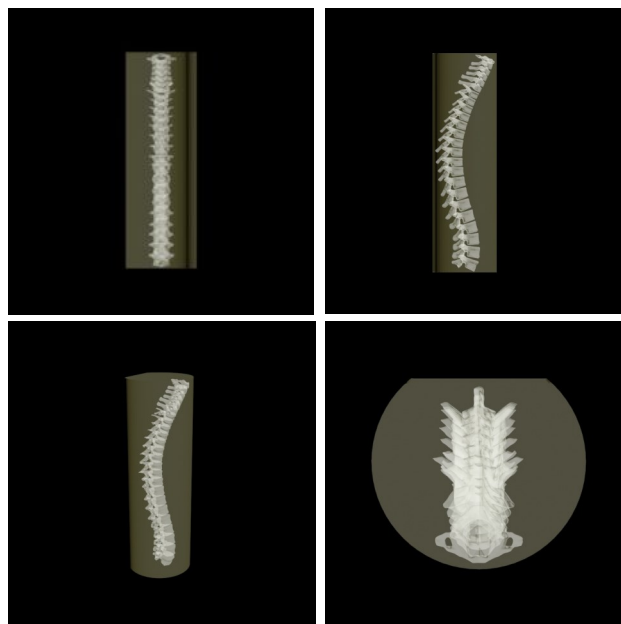
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Spine for X-Ray CT, MRI



SE-A01



### Description:

Adult Spine Phantom consists of 25 individual vertebrae assembled on top of each other and encased in a semi-cylindrical-shaped body-mimicking tissue. The vertebrae have a realistic three-layered structure with inner porosity which can be adjusted according to the requirement of the particular project.

The Phantom is designed based on average human anatomy, and the bones are made out of realistic patented bone material that is suitable for MRI and X-Ray CT applications. It can be used for medical imaging research and treatment planning of various medical procedures. (Upon request, it can be modified for a lumbar or spine lumbar practice phantom with soft tissue-mimicking material surrounding it)

The phantom can be further customized with water fillable spinal canal inside the vertebrae or with a prefilled spinal canal for medical imaging or research applications.

### Anatomy:

- ✓ Cervical Vertebrae (C1 – C7)
- ✓ Thoracic Vertebrae (T1 – T12)
- ✓ Lumbar Vertebrae (L1 – L5)

### Size & Weight:

- ✓ Phantom Size: 22 x 7 x 7 Inches, Weight: 30 Lbs. (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 34 Lbs. (approx.)

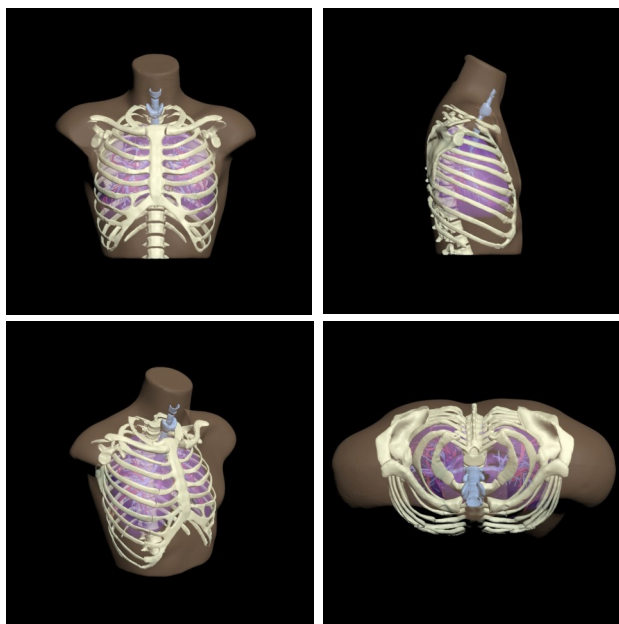
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Thorax for X-Ray CT, MRI



TX-A01



### Description:

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 & MRI 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 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.

### Anatomy:

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

### Size & Weight:

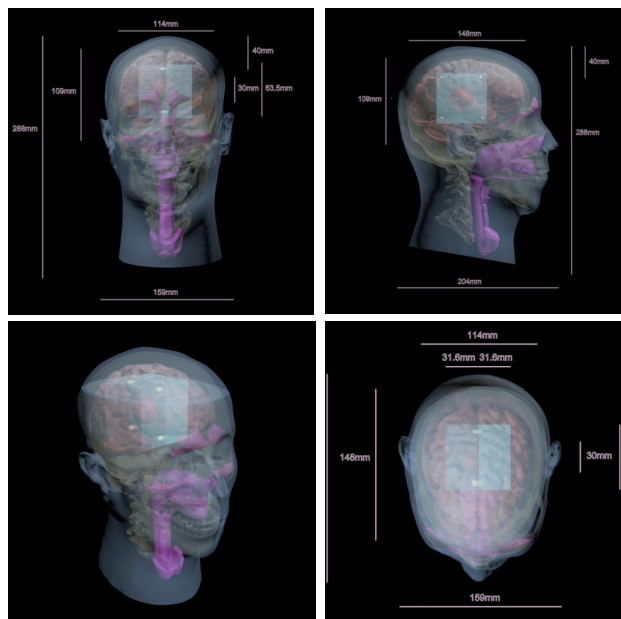
- ✓ Phantom Size: 18 x 10 x 18 Inches, Weight: 58 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 90 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)



## Head QC1 for X-Ray CT, MRI



HD-QC1

### Description:

HD-QC1 serves as an ideal tool to study target localization and dose delivery under the image guidance of CT, MRI, and PET. In addition to this, it can be customized with tissue-equivalent inserts for QA applications.

### Features:

- ✓ Ability to Perform IGRT QA Procedures under X-Ray CT and MR Image Guidance
- ✓ Ability to Perform Machine Quality Checks
- ✓ Ability to Conduct Winston-Lutz Test, Study Blind Targets, and Target Localization Techniques
- ✓ The Head is Customizable with Different Shaped Targets (2D, 3D) for IGRT and QA Applications.
- ✓ Ability to Verify Patient Positioning using Frame or Frameless Systems
- ✓ Ability to Verify Treatment Plans in Critical Regions
- ✓ Customizable with a Variety of Interchangeable Tissue-Equivalent Inserts Suitable for Dosimetry Applications

### Size & Weight:

- ✓ Phantom Size: 12 x 9 x 7 Inches, Weight: 17 Lbs (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 90 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso (Advanced) for X-Ray CT, MRI



TO-A03



### Description:

Adult Human Torso (Advanced) with a beating heart is a lifelike, anatomically realistic, from neck to pelvic area phantom/simulator with all the essential organs present inside. This product includes a heart pump.

### Anatomy:

- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulders and Clavicles
- ✓ Pelvis
- ✓ Partial Femoral Bones
- ✓ Trachea
- ✓ Realistic Heart with:
  - 2 Atria, 2 Ventricles:
  - Right Ventricle
  - Left Ventricle
  - Right Atrium
  - Left Atrium
- ✓ Appendage Feature
- ✓ Aorta
- ✓ Jugular vessels
- ✓ Pulmonic and Pulmonary Veins
- ✓ Flexible Valvular Structures
- ✓ SVC
- ✓ IVC
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Gallbladder
- ✓ Stomach
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Large and Small Intestines
- ✓ Bladder
- ✓ Prostate
- ✓ Beating Heart
- ✓ Adjustable Heart Rate
- ✓ Pathologies (tumors, Hemorrhages, polyps, etc.)

### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88 Lbs (approx.)
- ✓ Heart Pump Size: 36 x 12 x 8 Inches, Weight: 88 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso (Dynamic) for X-Ray CT, MRI



TO-A05



### Description:

The Adult Human Torso (Dynamic) phantom is a lifelike simulator compatible with MRI and X-Ray/CT. The phantom includes a realistic heart with a TPS heart pump and breathable lungs with a TPS lung pump.

### Anatomy:

- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulders and Clavicles
- ✓ Pelvis
- ✓ Partial Femoral Bones
- ✓ Trachea
- ✓ Realistic Heart with:
  - 2 Atria, 2 Ventricles:
  - Right Ventricle
  - Left Ventricle
  - Right Atrium
  - Left Atrium
- ✓ Appendage Feature
- ✓ Aorta
- ✓ Jugular vessels
- ✓ Pulmonic and Pulmonary Veins
- ✓ Flexible Valvular Structures
- ✓ SVC
- ✓ IVC
- ✓ Breathable Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Gallbladder
- ✓ Stomach
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Large and Small Intestines
- ✓ Bladder
- ✓ Prostate
- ✓ Beating Heart
- ✓ Adjustable Heart Rate

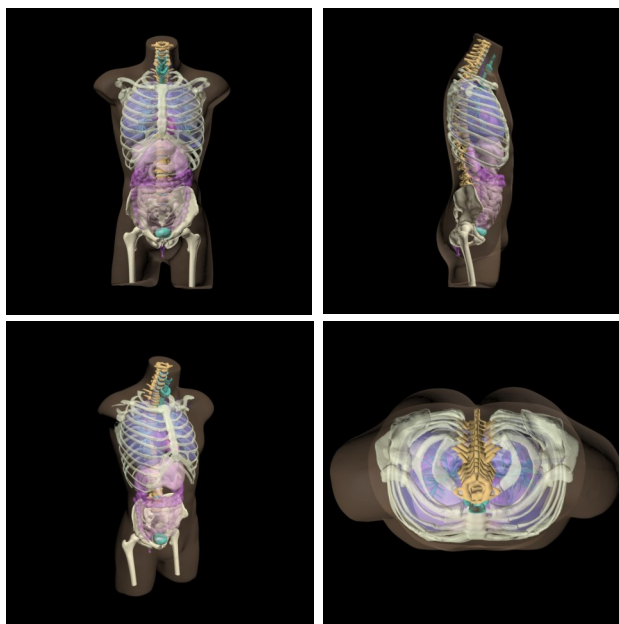
### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88 Lbs (approx.)
- ✓ Torso Shipment: 47 x 26 x 18 Inches, Weight: 144 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Adult Torso for X-Ray CT, MRI



CT-A01

### Description:

This phantom is designed based on average human anatomy and is made out of realistic bone and soft tissue-mimicking materials that are suitable for X-Ray/CT and MRI 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 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.

### Anatomy:

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

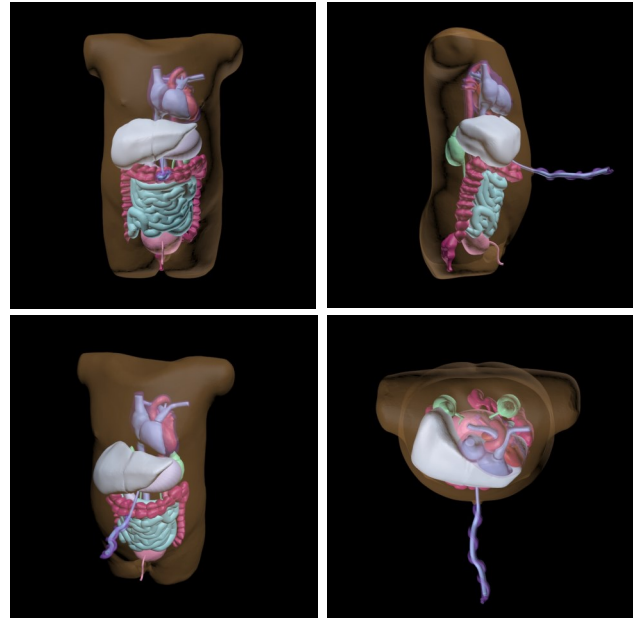
### Size & Weight:

- ✓ Phantom Size: 34 x 18 x 10 Inches, Weight: 88.2 Lbs (approx.).
- ✓ Shipment Size: 47 x 26 x 18 Inches, Weight: 144 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Newborn Torso (Advanced) for X-Ray CT, MRI



AN-N02

### Description:

The design of this Advanced Newborn Torso phantom is based on an average newborn torso. It is made from realistic tissue-mimicking materials suitable for MRI and X-Ray/CT imaging. The phantom has a water-fillable umbilical cord and bladder, which can be both used for catheterization training under ultrasound guidance.

The phantom was developed in collaboration with a group of physician experts from the Sonographic Clinical Assessment of the Newborn (SCAN) Training Program program at the University of Calgary (Department of Pediatrics).

### Anatomy:

- ✓ Heart
- ✓ Aorta
- ✓ Inferior Vena Cava
- ✓ Liver
- ✓ Kidneys
- ✓ Stomach
- ✓ Large and Small Intestines
- ✓ Water Fillable Bladder
- ✓ Water fillable Umbilical Cord
- ✓ Realistic Body Tissue

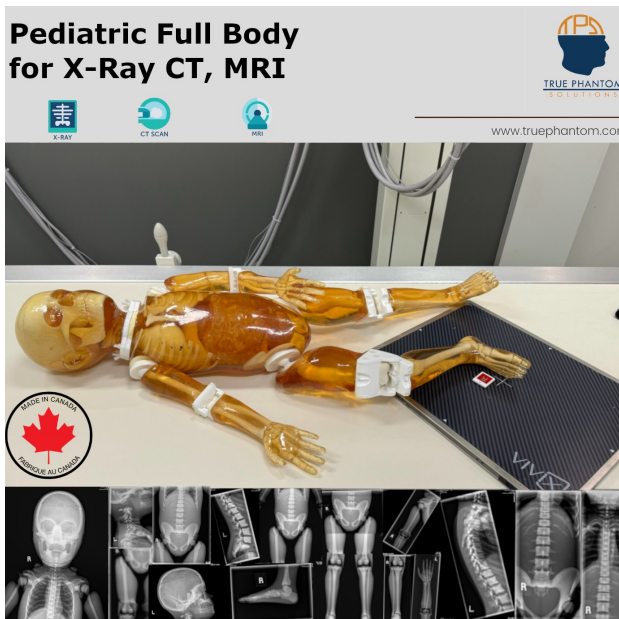
### Size & Weight:

- ✓ Phantom Size: 6 x 5 x 9 Inches, Weight: 4 Lbs (approx.).
- ✓ Shipment Size: 16 x 12 x 10 Inches, Weight: 8 Lbs (approx.)

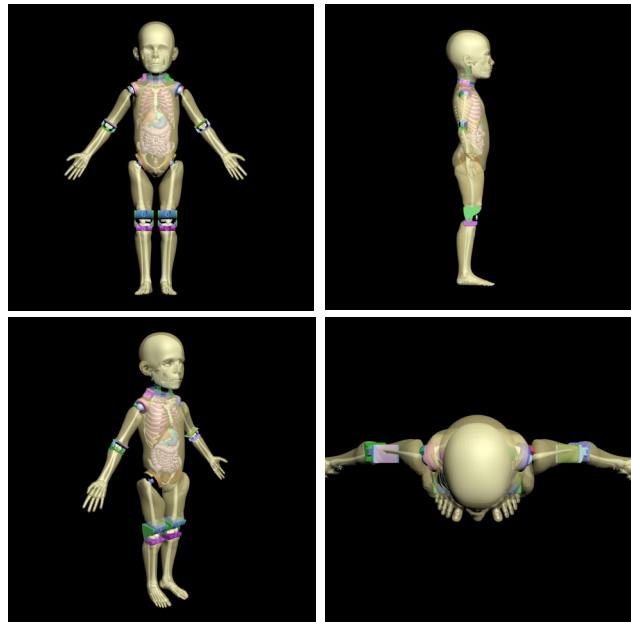
For more information about this product, please refer to our website.

[Learn More](#)

## Pediatric Full Body for X-Ray CT, MRI



FB-P01



### Description:

4-Year-old Pediatric Full Body Phantom is an X-Ray/CT and MRI-compatible training product. It is primarily used to train various patient positioning techniques. Often purchased by medical schools and teaching hospitals to train their radiology students and other medical professionals.

### Anatomy:

- |   |                           |                              |
|---|---------------------------|------------------------------|
| ✓ Pediatric Full Body                     | – Ribcage                 | – Large and Small Intestines |
| ✓ Realistic Body Tissue                   | – Shoulders and Clavicles | – Bladder                    |
| ✓ Rotatable Shoulders                     | – Pelvis                  | – Prostate                   |
| ✓ Moveable Hip Joints, Knees, and Elbows  | – Trachea                 | – Humerus                    |
| ✓ Detachable Head, Torso, and Limbs       | – Heart                   | – Elbow Joints               |
| ✓ Customizable with Different Pathologies | – Lungs                   | – Radius and Ulna            |
| – Skull                                   | – Diaphragm               | – Wrist with Fingers         |
| – Brain (with Gray Matter)                | – Liver                   | – Femur                      |
| – Spine                                   | – Gallbladder             | – Knee Joints                |
|   | – Stomach                 | – Tibia                      |
|   | – Kidneys                 | – Fibula                     |
|   | – Spleen                  | – Foot with Toes             |
|   | – Pancreas                |                              |

### Size & Weight:

- ✓ Phantom Size: 40 x 8 x 27 Inches, Weight: 40 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 99 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

## Pediatric Hand for X-Ray CT, MRI



HN-P01

### Description:

The Pediatric Hand Phantom is designed specifically for X-Ray, CT, and MRI applications. This innovative medical training tool is essential for radiologists, technicians, and educators dedicated to advancing pediatric imaging techniques and improving diagnostic accuracy.

The Pediatric Hand Phantom accurately replicates the intricate anatomy of a 4-year-old child's hand, including bones, joints, and soft tissues. This precision ensures a lifelike representation that aids in detailed anatomical studies and practice.

### Anatomy:

- ✓ Wrist Bones
- ✓ Finger Bones
- ✓ Partial Ulna
- ✓ Partial Radius
- ✓ Soft tissue mimicking material

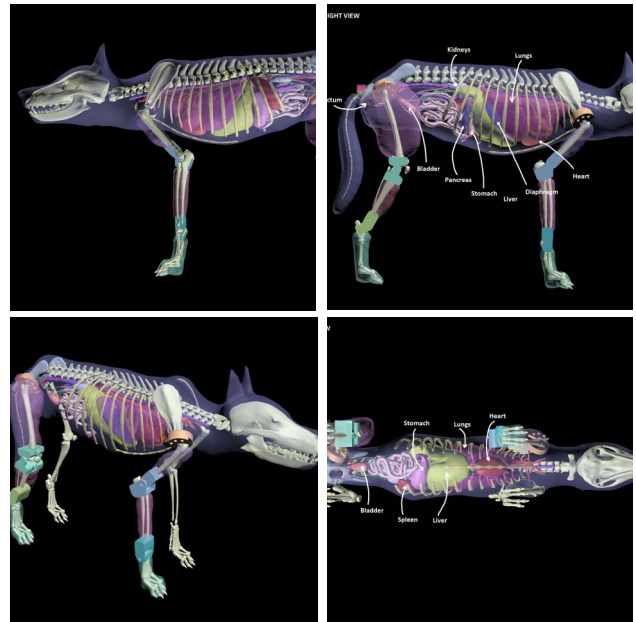
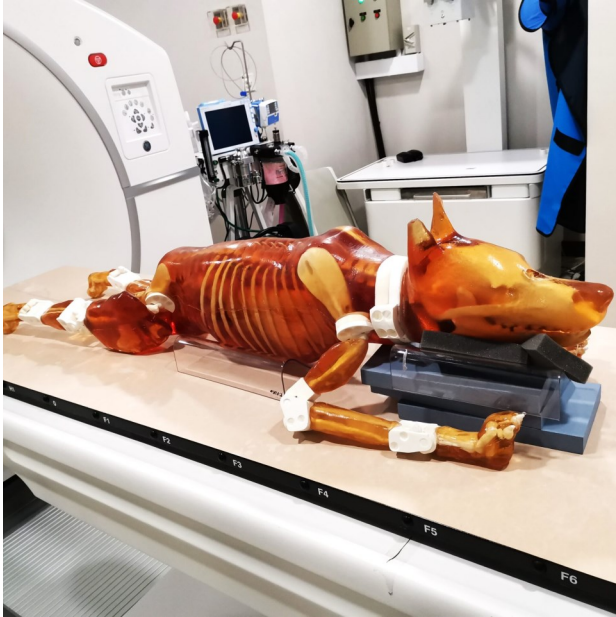
### Size & Weight:

- ✓ Phantom Size: 6 x 3 x 1 Inches, Weight: 1 Lbs (approx.).
- ✓ Shipment Size: 10 x 7 x 5 Inches, Weight: 3 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

## Dog Phantom for X-Ray CT, MRI



DG-A02

### Description:

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

### Anatomy:

- ✓ Dog Skull
- ✓ Jaw Bone
- ✓ Realistic Dog Brain
- ✓ Complete Spine
- ✓ Complete Ribcage
- ✓ Shoulder (Scapula Bones)
- ✓ Pelvis
- ✓ Heart
- ✓ Blood Vessels Connected to Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Stomach
- ✓ Liver and Gallbladder
- ✓ Kidneys
- ✓ Spleen
- ✓ Pancreas
- ✓ Arteries for Kidneys
- ✓ Bladder
- ✓ Ureters and Uterine
- ✓ Large and Small Intestine
- ✓ Arm (Humerus)
- ✓ Elbow Joints
- ✓ Forearm (Radius, Ulna)
- ✓ Paw (Wrist with Fingers)
- ✓ Thigh (Femur)
- ✓ Knee Joints
- ✓ Leg (Tibia, Fibula)
- ✓ Paw (Finger Bones)
- ✓ Tail Bone
- ✓ Skin-Mimicking Material

### Size & Weight:

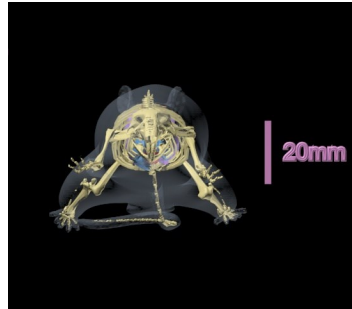
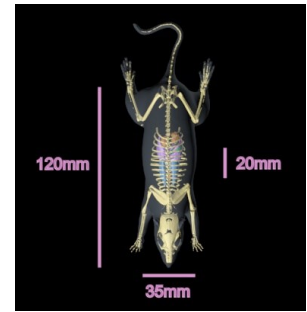
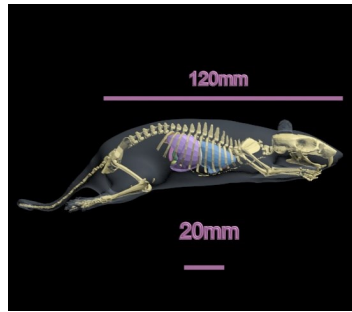
- ✓ Phantom Size: 33 x 18 x 6 Inches, Weight: 40 Lbs (approx.).
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 99 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)



## Rat Phantom (Anatomical) for X-Ray CT, MRI



RT-A01

### Description:

Rat Phantom (Anatomical) is designed based on an average anatomy of a rat/mouse and it is suitable for X-Ray/CT and MR imaging methods. It can be customized to excel in a selected imaging modality which makes it a powerful tool that can be used for testing and calibration-related work of various medical imaging devices.

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

### Anatomy:

- ✓ Complete Rat Skeleton
- ✓ Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Kidneys
- ✓ Pancreas
- ✓ Spleen

### Size & Weight:

- ✓ Phantom Size: 7 x 3 x 2 Inches, Weight: 1 Lb (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs (approx.).

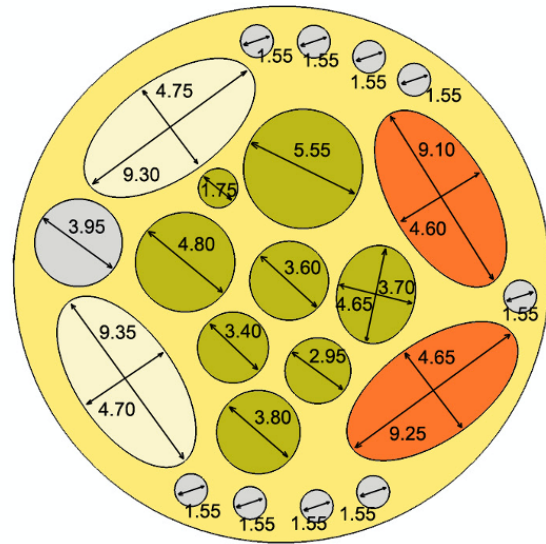
For more information about this product, please refer to our website.

[Learn More](#)

## Rat Phantom (Cylindrical) for X-Ray CT, MRI



RT-C01



\*All units are in millimeters

### Description:

Rat Phantom (Cylindrical) is designed to mimic complex rat anatomy in a form of a simple cylinder. It is a powerful tool that can be used for testing and calibration-related work of various medical imaging devices. The cylindrical phantom has a 27mm diameter and 70mm height, which correspond to the dimensions of small animals (i.e. a laboratory rat/mouse.).

### Anatomy:

- ✓ Soft Body Tissue – for better imaging results and optical transparency, we set this tissue to be transparent and to have no speckles.
- ✓ Organs without Speckles – those are organs which are softer than the surrounding body tissue. They appear brighter on T2-weighted MRI images.
- ✓ Organs with Speckles – those are the organs with higher stiffness and density (i.e. muscles). They appear brighter on T2-weighted MRI images.
- ✓ Cartilage Tissue – very stiff and much more attenuative tissue than the organs and body tissue. It appears darker on T2-weighted MRI images.
- ✓ Soft Organs with Speckles – those are the softest organs in the phantom. They appear the brightest in the phantom on T2-weighted MRI images (i.e. kidneys, liver, etc.).

### Size & Weight:

- ✓ Phantom Size: 1 x 1 x 3 Inches, Weight: 1 Lb (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

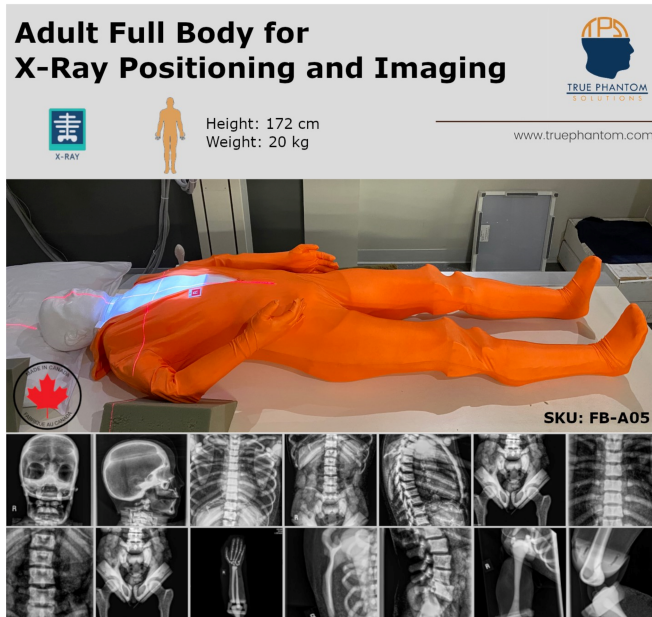
# Product Catalog



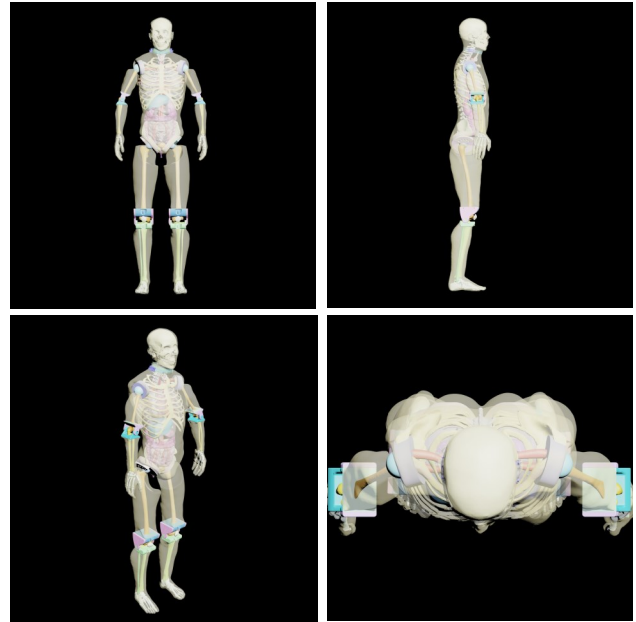
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## X-Ray CT

## Adult Full Body X-Ray Positioning and Imaging



FB-A05



### Description:

This Adult Full Body Phantom is an advanced X-ray positioning and imaging training tool, with no assembly required, designed to enhance the learning experience for both students and professionals in the field of radiology. Its lightweight construction, weighing only 20 kg, facilitates easy transport and repositioning, allowing users to adjust the phantom into a variety of positions required for different X-ray techniques.

### Anatomy:

- ✓ Foam Body Tissue
- ✓ Movable Hip, Knee, and Elbow

#### Joints

- ✓ Adult Head
  - Skull
  - Air Cavities
  - Frontal Sinus with Air Gaps
- ✓ Adult Torso
  - Spine
  - Ribcage
  - Shoulders & Clavicles
  - Pelvis

- Trachea
- Heart
- Lungs
- Diaphragm
- Liver
- Gallbladder
- Stomach
- Kidneys
- Spleen
- Pancreas
- Large and Small Intestines
- Bladder
- Prostate

- ✓ Adult Arms
  - Humerus
  - Elbow Joints
  - Radius
  - Ulna
  - Wrist
  - Fingers
- ✓ Adult Legs
  - Femur
  - Knee Joints
  - Tibia
  - Fibula
  - Foot

### Size & Weight:

- ✓ Size: 69 Inches, Weight: 44 Lbs (approx.).
- ✓ Size: 63 x 34 x 42 Inches, Weight: 90 Lbs (approx.)

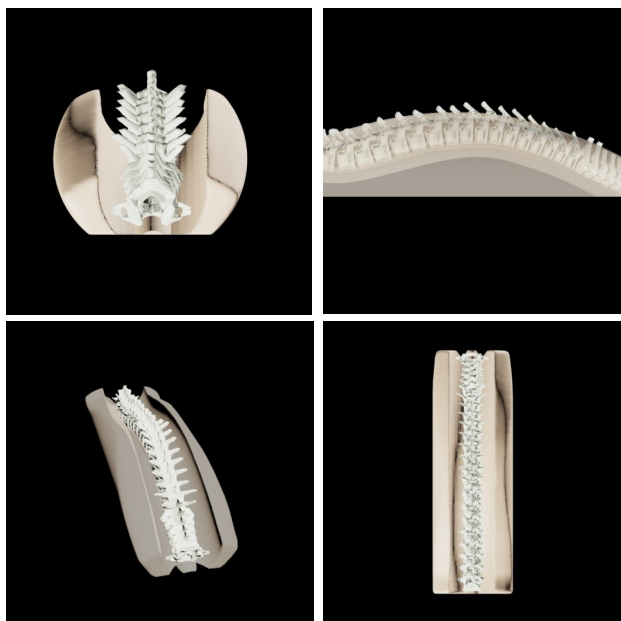
For more information about this product, please refer to our website.

[Learn More](#)

## Adult Spine for X-Ray CT



SE-A03



### Description:

Adult Spine Phantom consists of 25 individual vertebrae assembled on top of each other and encased in a semi-cylindrical-shaped body-mimicking tissue. The vertebrae have a realistic three-layered structure, and their inner porosity can be adjusted according to the requirement of the particular project.

The Phantom is designed based on average human anatomy, and the bones are made out of realistic patented bone material that is suitable for X-Ray/CT applications. It can be used for medical imaging research & treatment planning of various medical procedures (Upon request, it can be modified for a lumbar or spine lumbar practice phantom with soft tissue-mimicking material surrounding it).

### Anatomy:

- ✓ Cervical Vertebrae (C1 – C7)
- ✓ Thoracic Vertebrae (T1 – T12)
- ✓ Lumbar Vertebrae (L1 – L5)

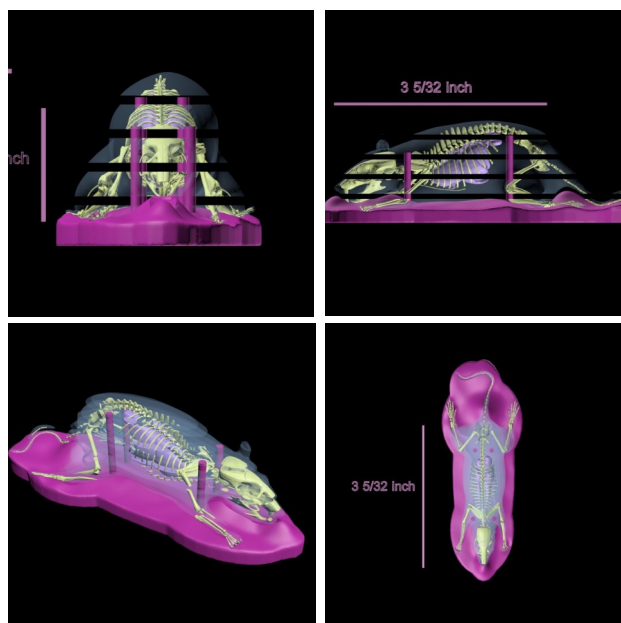
### Size & Weight:

- ✓ Phantom Size: 22 x 7 x 7 Inches, Weight: 30 Lbs. (approx.).
- ✓ Shipment Size: 23 x 14 x 10 Inches, Weight: 34 Lbs. (approx.).

For more information about this product, please refer to our website.

[Learn More](#)

## Sectional Mouse for X-Ray CT



RT-C02

### Description:

Sectional Mouse Phantom for X-Ray/CT is designed based on the average anatomy of a mouse, and it is sliced into four 5 mm thick segments. The phantom can be used for medical imaging research & development, testing, and calibration-related work. It can be customized in terms of size, shape, internal features, and properties to fit the needs of a wide variety of biomedical research projects.

### Anatomy:

- ✓ Complete Mouse Skeleton
- ✓ Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Kidneys
- ✓ Pancreas
- ✓ Spleen



### Size & Weight:

- ✓ Phantom Size: 2 x 4 x 1 Inches, Weight: 0.5 Lbs. (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs. (approx.)

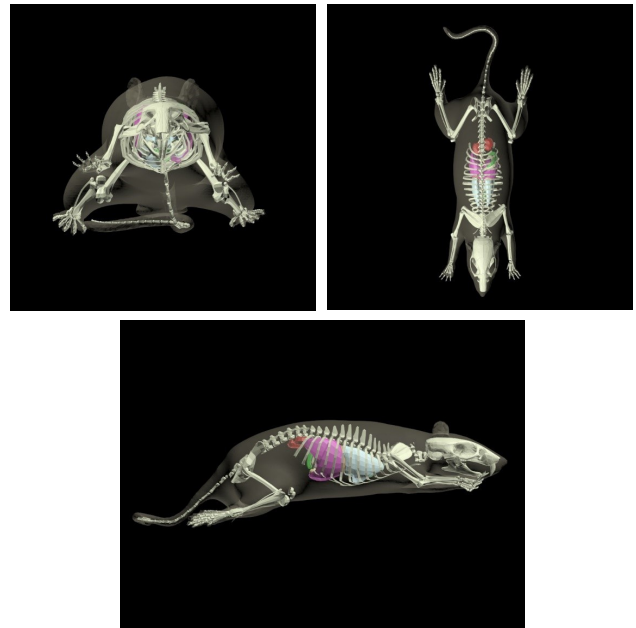
For more information about this product, please refer to our website.

[Learn More](#)

## Sectional Rat for X-Ray CT



RT-C04



### Description:

Sectional Rat Phantom for X-Ray/CT is designed based on the average anatomy of a rat, and it is sliced into four 5 mm thick segments. The phantom can be used for medical imaging research & development, testing, and calibration-related work. It can be customized in terms of size, shape, internal features, and properties to fit the needs of a wide variety of biomedical research projects.

### Anatomy:

- ✓ Complete Rat Skeleton
- ✓ Heart
- ✓ Lungs
- ✓ Diaphragm
- ✓ Liver
- ✓ Kidneys
- ✓ Pancreas
- ✓ Stomach



### Size & Weight:

- ✓ Phantom Size: 2 x 4 x 1 Inches, Weight: 0.5 Lbs. (approx.).
- ✓ Shipment Size: 10 x 8 x 6 Inches, Weight: 3 Lbs. (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

# Product Catalog

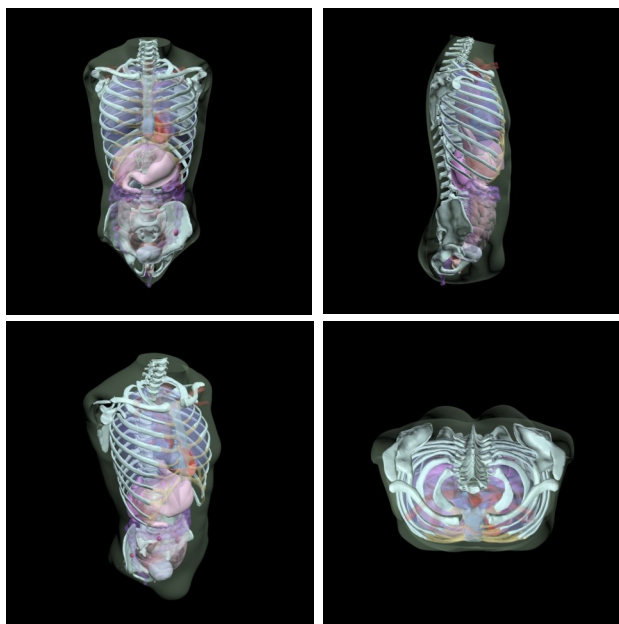
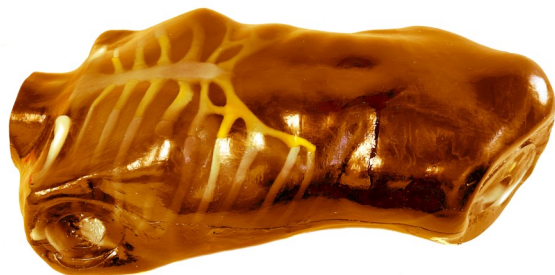


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# Ultrasound



## Adult Torso for FAST Training



US-A04

### Description:

The Adult FAST Torso phantom, is for ultrasound imaging, with a primary focus on the FAST (Focused Assessment with Sonography in Trauma) protocol.

### Anatomy:

- ✓ 3D Printed Bones:
  - Complete Spine
  - Complete Ribcage
  - Shoulders and Clavicles
  - Pelvis Structure
  - Partial Femur Bones
- ✓ Thoracic Organs:
  - Trachea
  - Heart with Four Chambers
  - Lungs
- ✓ Abdominal Organs:
  - Diaphragm
  - Liver
- Gallbladder
- Stomach
- Kidneys
- Spleen
- Pancreas
- Large and Small Intestines
- Bladder
- Prostate

### Pathologies:

- ✓ Internal Hemorrhages:
  - Perihepatic
  - Perisplenic
  - Pericardial
  - Around the Bladder
- ✓ Cholecystitis
- ✓ Aortic Aneurysm
- ✓ Lesions in the Colon

### Size & Weight:

- ✓ Phantom Size: 27 x 10 x 14 Inches, Weight: 65 Lbs (approx.)
- ✓ Shipment Size: 32 x 23 x 13 Inches, Weight: 110 Lbs (approx.)

For more information about this product, please refer to our website.

[Learn More](#)

# Technical Properties - Body Tissues

Type of Tissue	Sound Velocity [m/s]	Density [g/cm <sup>3</sup> ]	Attenuation Measured at 2.25 MHz [dB/cm]	Hardness [Shore OO]	T2 [ms]	Speckles
Organs with Speckles (liver, kidneys, etc.)	1400 ± 10	0.99	1.0 ± 0.2	20	70	VARIABLE
Organs without Speckles (stomach, intestines, etc.)	1400 ± 10	0.99	1.0 ± 0.2	20	70	NO
Heart Tissue	1400 ± 10	1.02	1.7 ± 0.2	60	30	YES
Body Tissue	1400 ± 10	1.00	1.2 ± 0.2	30	65	NO/LOW
Soft Tissue	1400 ± 10	1.01	1.3 ± 0.2	35	N/A	NO
Cartilage	1800 ± 10	1.03	25 ± 2	65 Shore A	N/A	NO
Tumor Feature	1400 ± 10	1.01	1.2 ± 0.2	30	65	YES
Cortical Bone	3000 ± 30	2.31	6.4 ± 0.3	N/A	N/A	N/A
Trabecular Bone	2800 ± 50	2.03	21 ± 2	N/A	N/A	N/A
Temporal Bone	3000 ± 30	2.31	6.4 ± 0.3	N/A	N/A	N/A
Brain Grey Matter	1400 ± 10	0.99	1.0 ± 0.2	20	70	YES
Brain White Matter	1400 ± 10	1.01	1.3 ± 0.2	35	60	YES
Falx Cerebri	1400 ± 10	1.01	1.7 ± 0.2	60	50	YES
Muscle Tissue	1400 ± 10	1.01	1.3 ± 0.2	35	60	YES
Skin Tissue	1400 ± 10	1.02	1.7 ± 0.2	60	50	NO

### HU Values of the Tissue Mimicking-Materials

S.No.	Tissue Type	HU Value (Average)
1	Body Tissue	-25
2	Skin Tissue	-25
3	Brain Tissue	-25
4	Trabecular Bone	800
5	Cortical Bone	1300
6	Aorta	40
7	Vena Cava	40
8	Trachea	80 (Tissue Part), -1000 (Air Filled Part)
89	Pancreas	110
10	Spleen	110
11	Kidneys	110
12	Bladder	35
13	Rectum Wall	100
14	Sigmoid Colon Wall	100
15	Heart	40
16	Liver	110
17	Gallbladder	35

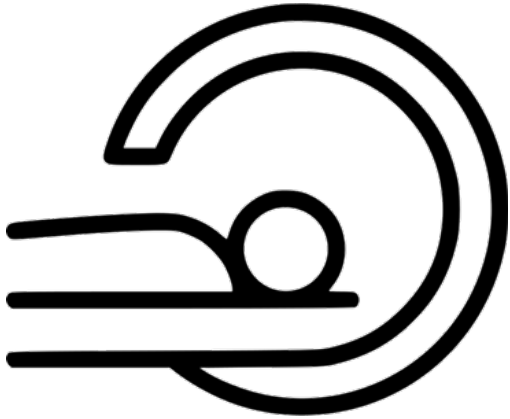
### Thermal Properties of our Bone-Mimicking Material

Thermal Conductivity	Volumetric Specific Heat Capacity	Thermal Diffusivity	Thermal Resistivity	Specific Heat	Speed of Sound
0.776 W/ m K	1.040 MJ/ m <sup>3</sup> K	0.746 mm <sup>2</sup> / s	1.289 m K/ W	0.978 J/ g °C	3070 m/s

## Technical Properties - Rat (Cylindrical)

Type of Tissue	Sound Velocity [m/s]	Density [g/cm <sup>3</sup> ]	Hardness [Shore 00]	T2 [ms]	Speckles	Attenuation Measured at 2.25 MHz [dB/cm]
(#1) – Transparent	1400 ± 10	1.01	30	N/A	NO	1.3 ± 0.2
(#2) – Transparent	1400 ± 10	1.03	60	N/A	NO	1.8 ± 0.2
(#3) – Red	1400 ± 10	1.04	60	N/A	YES	1.8 ± 0.2
(#4) – Cartilage	1850 ± 10	1.06	85	N/A	NO	30 ± 2
(#5) – Non-Transparent	1400 ± 10	1.00	20	N/A	YES	1.0 ± 0.2

## Scanning Applications



- Our phantoms are fabricated based on the anatomy of the real human body. It can be scanned as per the standard protocols used while positioning a real person.
- The phantoms can be put on horizontal as well as vertical positions for scanning purposes.
- Anterior, Lateral and Posterior techniques can also be performed.

## Storage and Handling



- Our phantoms are made from urethane-based material and should be protected from direct exposure to any intense UV light.
- The experiments conducted on the phantoms can be performed in a sunny lab, but it is not recommended to leave the phantom under direct sunlight for weeks or months. If the phantom is not in use, we strongly recommend storing it in a dry and dark place or covering it with a plastic sheet/foil.

## Cleaning



- The phantom is water-resistant, and it can be cleaned after its use. It is ideal for cleaning it either with water or with soapy water.
- It is also quite resistant to chemicals, but if stronger solvents are meant to be used with the phantom, we recommend doing a small test on the bottom part of the neck or legs. The phantom should be placed on its belly, and the chosen solvent can be applied on a small, selected surface of the phantom for a few hours. If there is no visible effect on the phantom's surface, it is safe to assume that the phantom is resistant to the tested chemical, and it is safe to use it for the rest of the phantom. In other cases, avoid the solvent or contact us for alternatives.

## **True Phantom Solutions Inc.**

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