Article Number
PX0203456

Made in Germany

CHILD TORSO PHANTOM
1-YEAR-OLD CHILD

Age Category	Child
Body Region	Torso
Target Modality	CT, X-ray
Diagnostic Features	Vasculature, soft and bone tissue



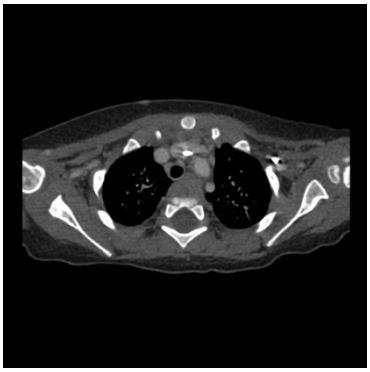
This phantom simulates a 1-year-old child's contrast medium enhanced thorax, abdomen and pelvis in portal venous phase. It covers the sixth cervical vertebra to the perineum. The colon is filled with contrast medium as after rectal administration.

The phantom can be used in CT (including CBCT) and X-ray imaging to evaluate and optimize imaging performance and post-processing applications, including AI-enabled applications. It is also suited for training purposes.

The phantom provides a detailed and realistic simulation of soft and bone tissue. Air voids including those of the lungs are filled with a cellulose-polymer composite of approx. -160 HU.









PhantomX GmbH
Schwedenstr. 14, 13357 Berlin

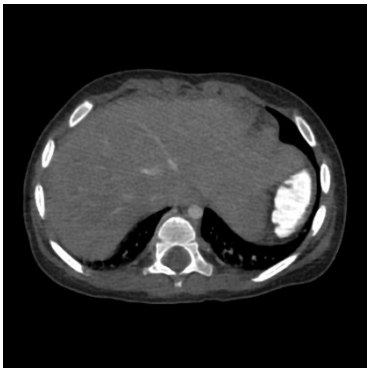
www.phantomx.de

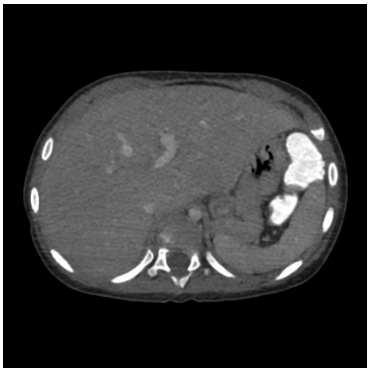
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Tel: +49 (0)30 6407 9970

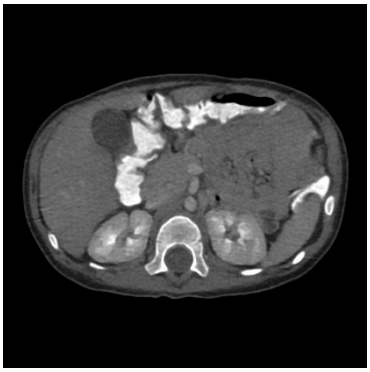
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Specifications

Size	Approx. 210 x 145 x 313 mm 8.3 × 5.7 × 12.3 in
Weight	Approx. 4400 g 9.7 lb
Base material	Cellulose-polymer composite
Optimal tube voltage	100 kVp (cf page 3) - adaptable upon request -

Diagnostic features

Realistic simulation of vasculature, bone and soft tissues, including the lungs, heart, liver, gallbladder, pancreas, spleen, adrenals, kidneys, stomach, small intestine, colon and bladder.

For more information visit
www.phantomx.de

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1-YEAR-OLD CHILD

General indications

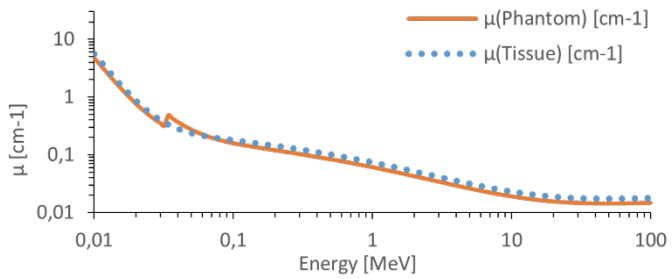
- The phantom is made of a cellulose-polymer composite material with properties similar to hardwood. If handled carefully, it will last a long time.
- The phantom is coated with a protective layer. If the protective layer is undamaged, the phantom can be cleaned using a damp cloth (water or mild detergent).
- Protect from direct sunlight.
- Maintain a storage temperature of 10 °C to 30 °C. If the phantom is exposed to temperatures below -10 °C or above 45 °C, it can be severely damaged.
- The phantom is not equipped for dose measurements with dosimeters and it is not suited for material characterization with dual energy CT.
- The phantom is not certified as medical device.
- Air voids are filled with cellulose-polymer composite of approx. -160 HU.
- Handle with care to prevent injury or damage.
- If external damage is observed, it is recommended to consult PhantomX.

Phantom based on modified data, originally published by Jordan P et al. Pediatric Chest/Abdomen/Pelvic CT Exams with Expert Organ Contours (Pediatric-CT-SEG). The Cancer Imaging Archive (2021) DOI: 10.7937/TCIA.X0H0-1706 (CC BY 4.0)

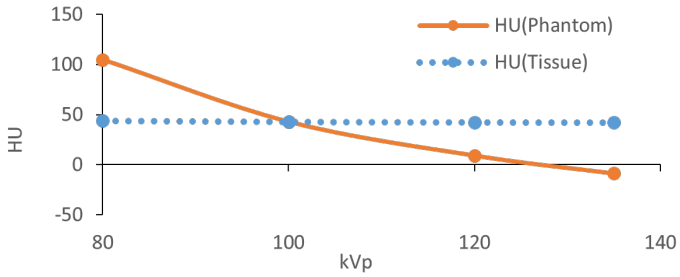
Attenuation properties

Soft Tissue

Linear attenuation coefficients [cm^{-1}] (calculated)

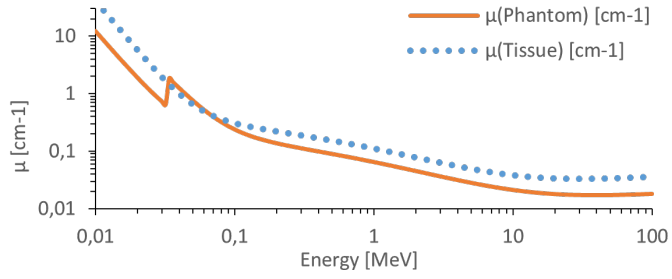


Hounsfield units (calculated)

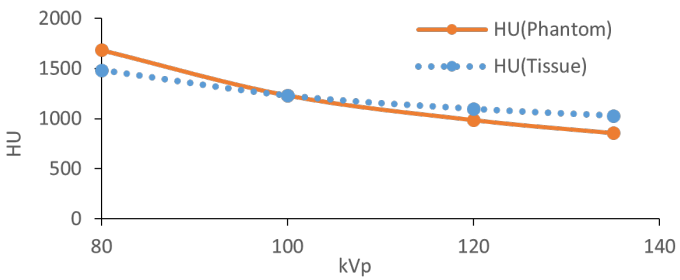


Bone Tissue

Linear attenuation coefficients [cm^{-1}] (calculated)



Hounsfield units (calculated)



Tissue Reference: Woodard HQ, White DR. The composition of body tissues. Br J Radiol. 1986.

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