phantomx

HEAD CTA PHANTOM

Age Category	Adult
Body Region	Head
Target Modality	CT
Diagnostic Features	Vasculature

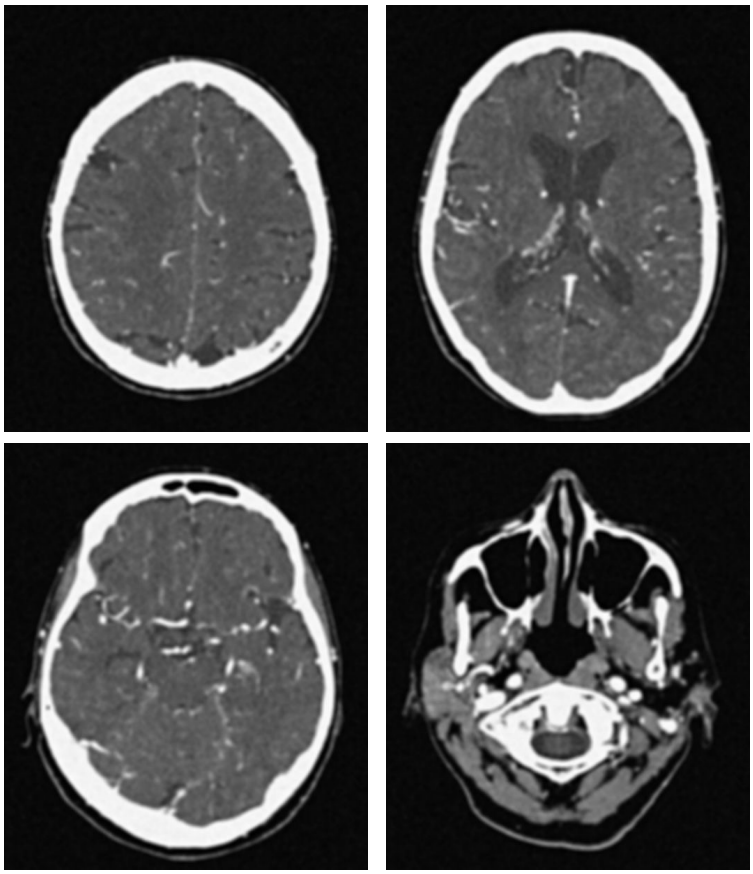


This phantom simulates a contrast medium enhanced head in arterial phase (CT angiography). The neck is included up to the first cervical vertebra. The vertex is included until approximately 0.5 cm below skin level.

The phantom has no significant vascular pathologies.

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

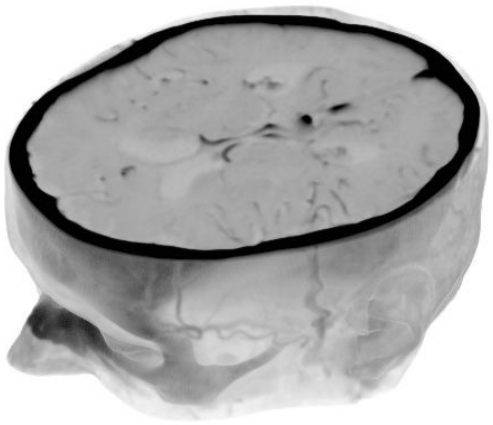
The phantom provides a detailed and realistic simulation of vascular structures, soft and bone tissue, including small details such as lymph nodes. Air voids are filled with a cellulose-polymer composite of approx. -160 HU.

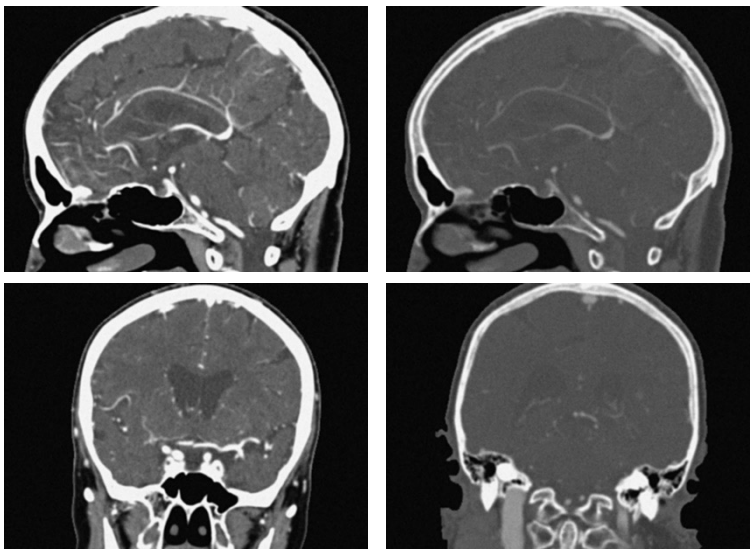


Wellcome Technology Co., Limited
19H Maxgrand plaza,No.3 Tai Yau Street, San Po Kong,Kowloon,hk
Email:ivylin@hkmedqc.com
web:http://www.hkmedqc.com

phantomx

HEAD CTA PHANTOM





Specifications

Size	Approx. 156 x 186 x 150 mm 6.1 × 7.3 × 5.9 in
Weight	Approx. 2410 g 5.3 lb
Base material	Cellulose-polymer composite
Optimal tube voltage	120 kVp [cf page 3] - adaptable upon request -

Diagnostic features

Realistic simulation of head vessels up to the first cervical vertebra, bone and soft tissues.

phantomx

HEAD CTA PHANTOM

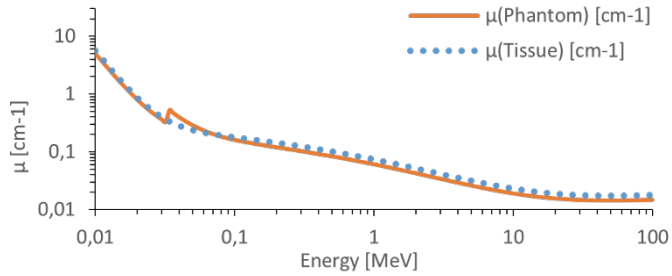
General indications

- 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.

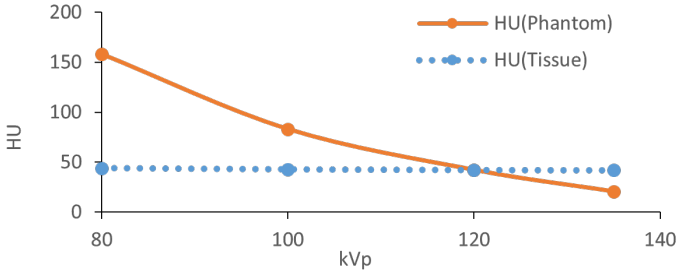
Attenuation properties

Soft Tissue

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

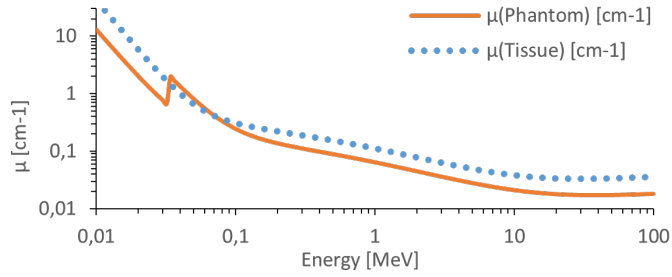


Hounsfield units (calculated)

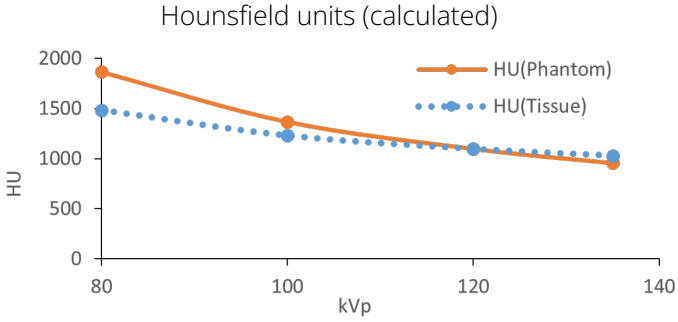


Bone Tissue

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



Hounsfield units (calculated)



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

Wellcome Technology Co., Limited
19H Maxgrand plaza,No.3 Tai Yau Street, San Po Kong,Kowloon,hk
Email:ivylin@hkmedqc.com
web:http://www.hkmedqc.com