

Head Phantom “Aneurysm”

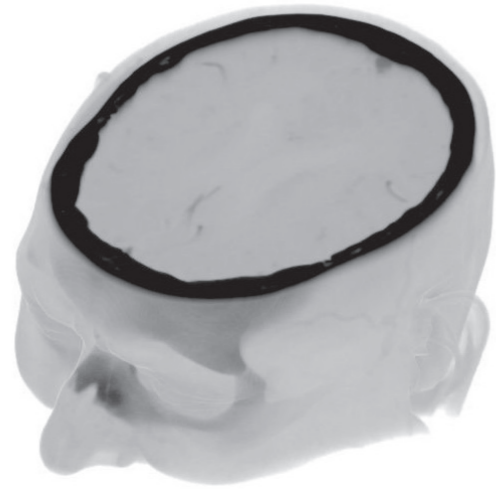
for CT, X-Ray and Radiation Therapy



Factsheet

Item No. NLP1510





This phantom simulates a contrast medium enhanced head in arterial phase (CT angiography). It covers the vertex to the foramen magnum. The phantom has three intracranial aneurysms of the middle cerebral artery (MCA), anterior communicating artery (ACoA), and the basilar artery.

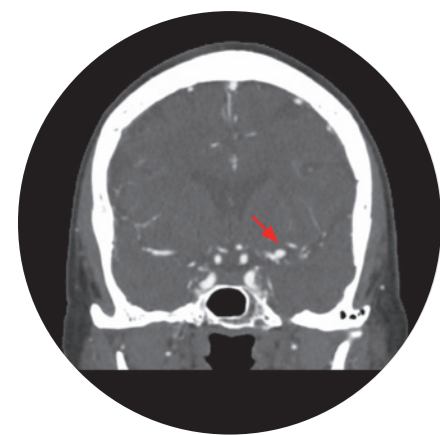
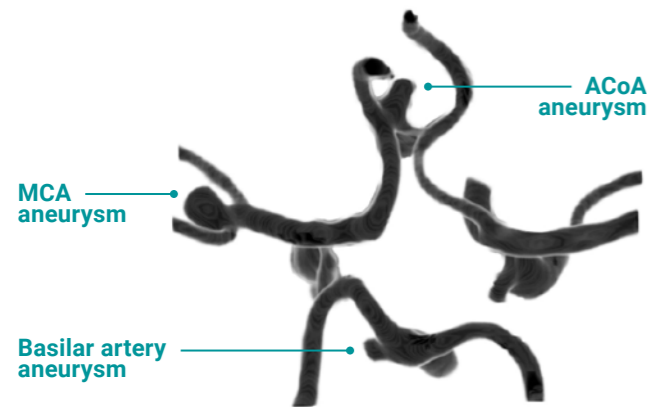
The phantom can be used in CT (including CBCT) to evaluate and optimize imaging performance and AI-enabled diagnosis. It is also suited for training purposes. The phantom provides a detailed and realistic simulation of common brain pathologies, soft and bone tissues. Air voids are filled with a cellulose-polymer composite of approx. -160 HU.

Diagnostic features - Aneurysms:

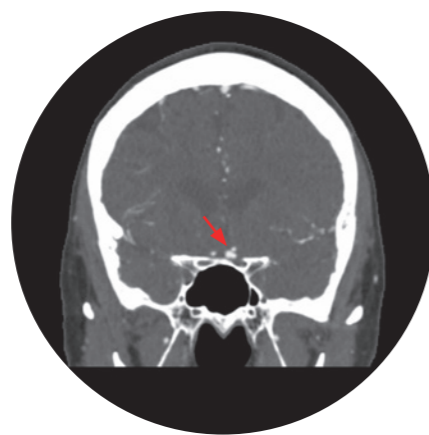
- Middle cerebral artery (MCA) left side
- Anterior communicating artery (ACoA) left side
- Basilar artery left side

Specifications

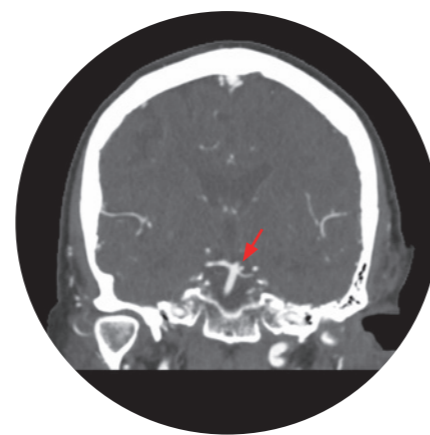
Size: approx. 19.1 x 21.8 x 15 cm
 Weight: approx. 2.68 kg
 Base Material: cellulose-polymer composite
 Optimal Tube Voltage: 120 kVp (adaptable upon request)



Middle cerebral artery (MCA) aneurysm (left side)



Anterior communicating artery (ACoA) aneurysm (left side)

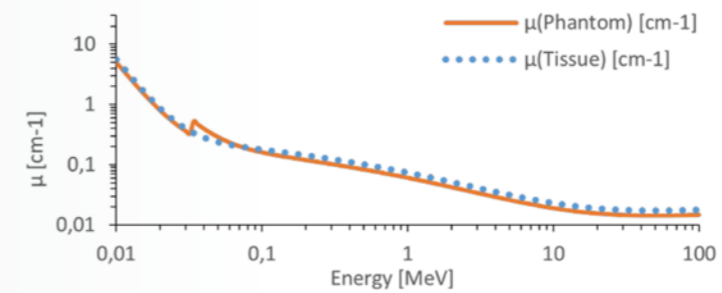


Basilar artery aneurysm (left side)

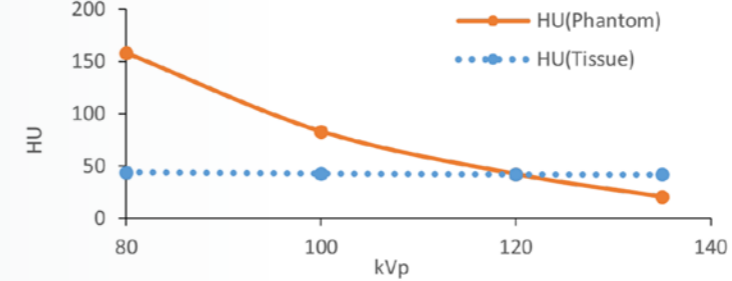
Attenuation properties

Soft Tissue

Linear attenuation coefficients [cm⁻¹] (calculated)

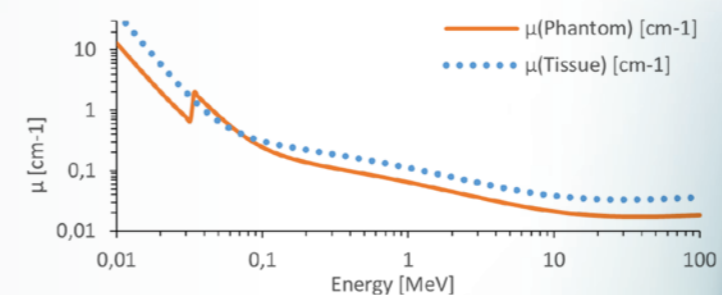


Hounsfield units (calculated)

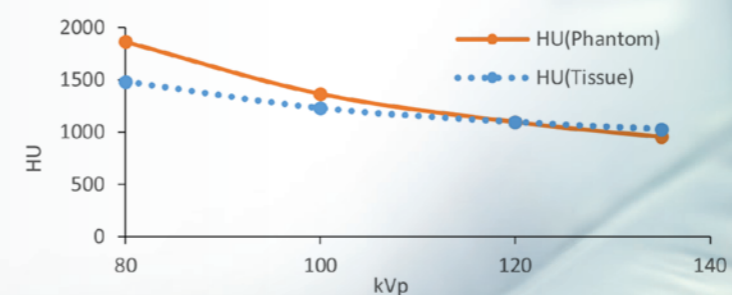


Bone Tissue

Linear attenuation coefficients [cm⁻¹] (calculated)



Hounsfield units (calculated)



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

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.



EXPERTS IN MEDICAL EDUCATION

Erler-Zimmer Medical GmbH

Hauptstraße 27 · 77886 Lauf · Germany

T +49 7841 / 67191-0 · F +49 07841 / 67191-99

info@erler-zimmer.de

www.erler-zimmer.de

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