

ABDOMEN PHANTOM PV LC SPHERES

Age
Category

Adult

Body
Region

Abdomen

Target
Modality

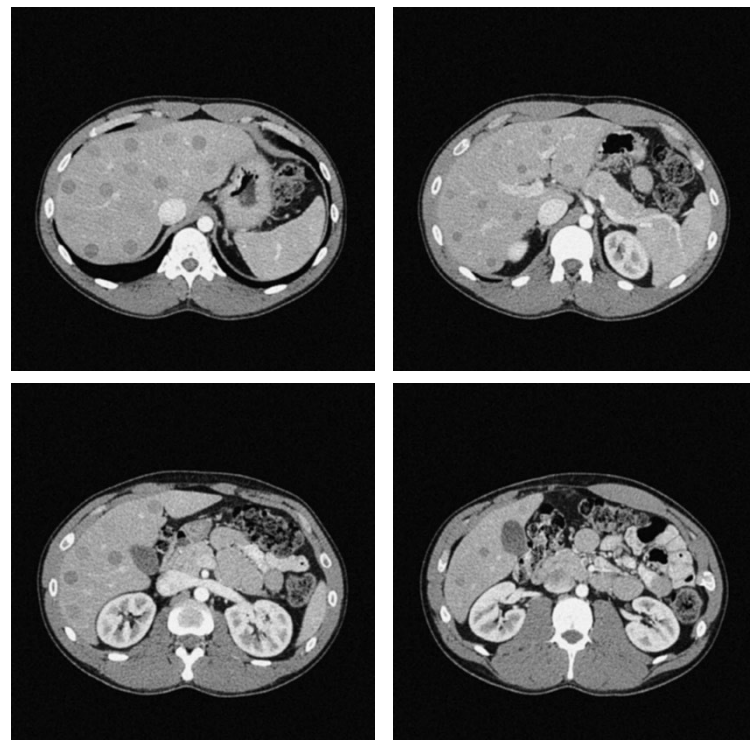
CT

Diagnostic
FeaturesVasculature, soft and
bone tissue

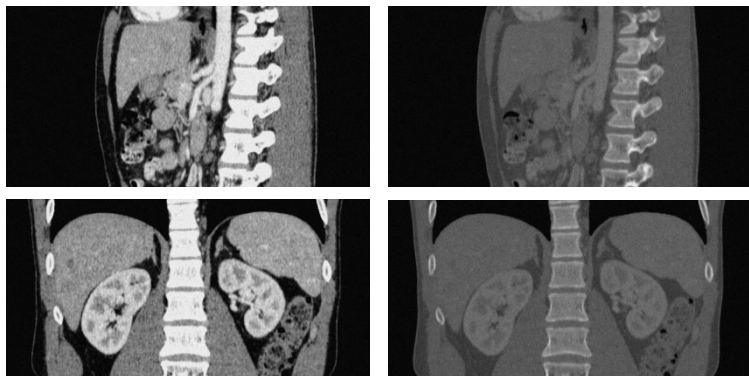
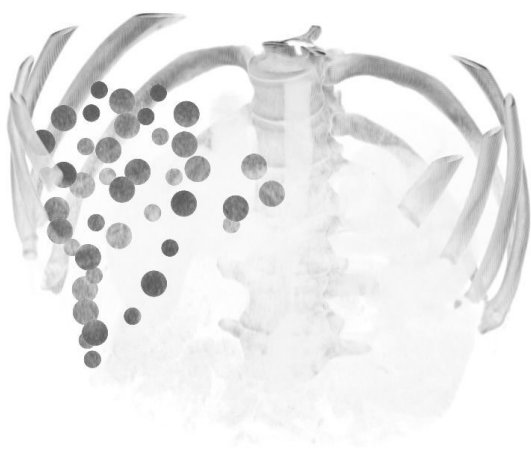
This phantom simulates a contrast medium enhanced abdomen in portal venous phase. It covers the eleventh thoracic vertebra to the fourth lumbar vertebra (partially included).

The phantom can be used in CT (including CBCT) 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 are filled with a cellulose-polymer composite of approx. -160 HU.



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Specifications

Size	Approx. 268 x 189 x 150 mm
Weight	Approx. 4950 g
Base material	Cellulose-polymer composite
Optimal tube voltage	120 kVp (cf page 6) - adaptable upon request -

Diagnostic features

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

42 spherical liver lesions in 7 sections.

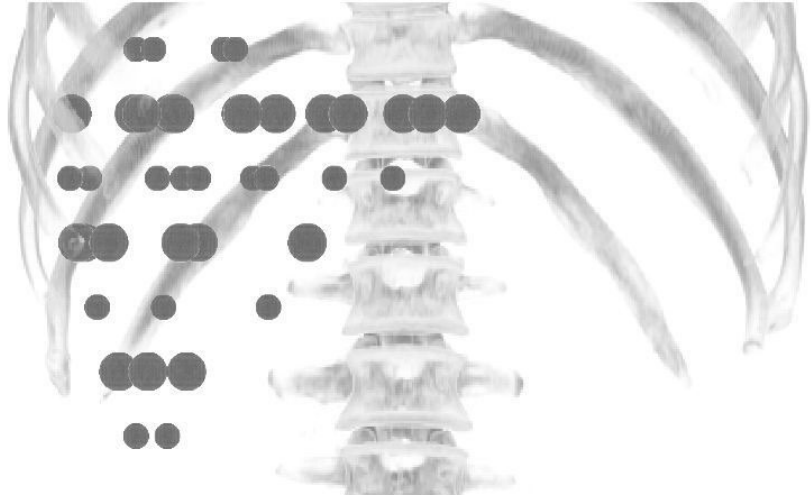
Lesion diameter:	8 mm and 12 mm
Lesions contrasts:	10, 20, 30 and 40 HU at 120 kVp

Section 1:	4 lesions	Section 5:	3 lesions
Section 2:	15 lesions	Section 6:	3 lesions
Section 3:	9 lesions	Section 7:	2 lesions
Section 4:	6 lesions		

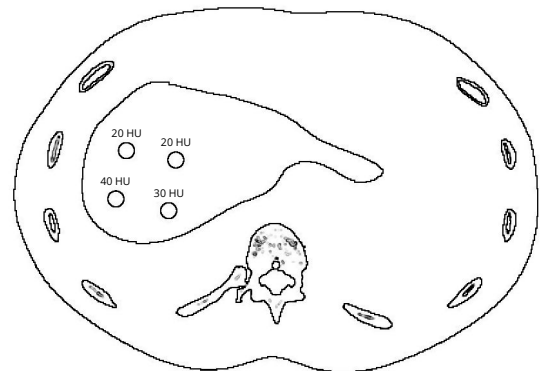
For more information visit
www.phantomx.de

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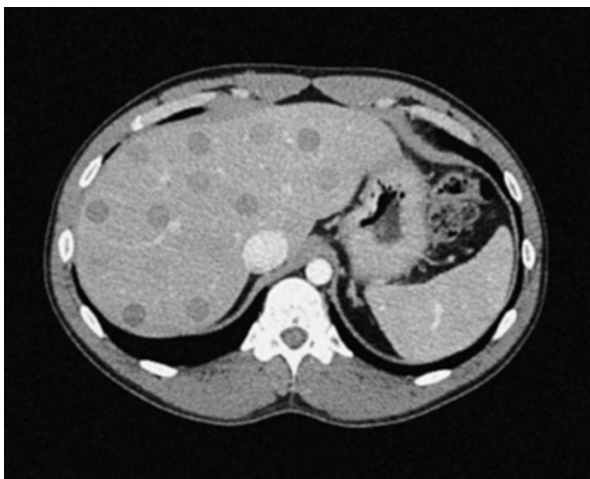
- Section 1 _____
- Section 2 _____
- Section 3 _____
- Section 4 _____
- Section 5 _____
- Section 6 _____
- Section 7 _____



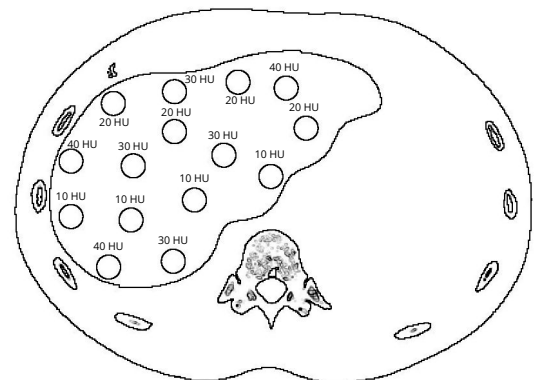
Exemplary image of section 1



Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.

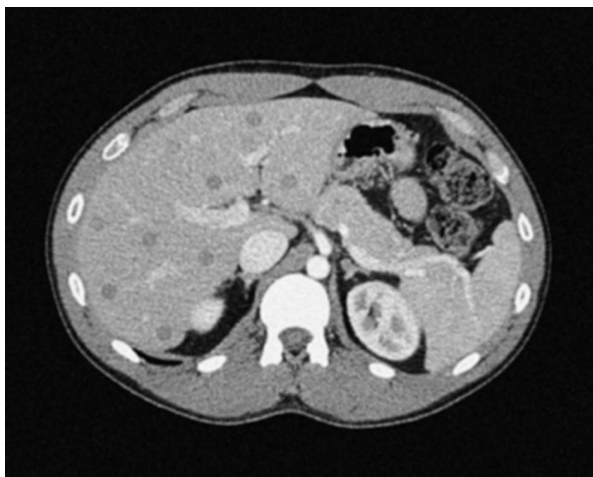


Exemplary image of section 2

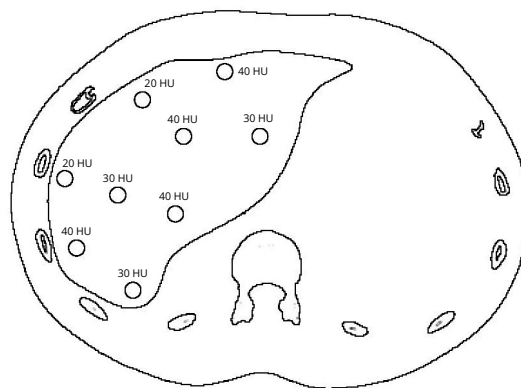


Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.

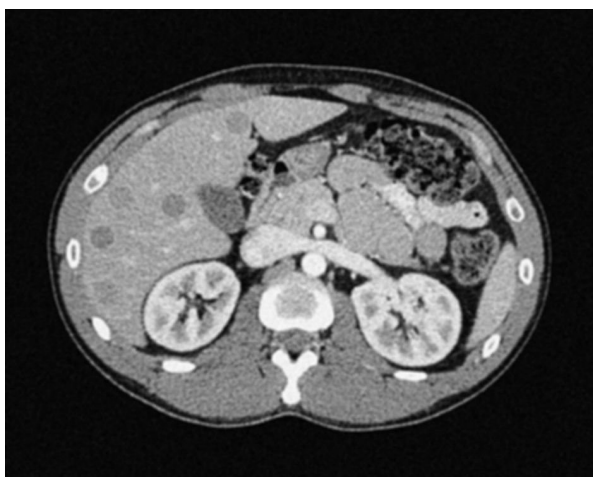
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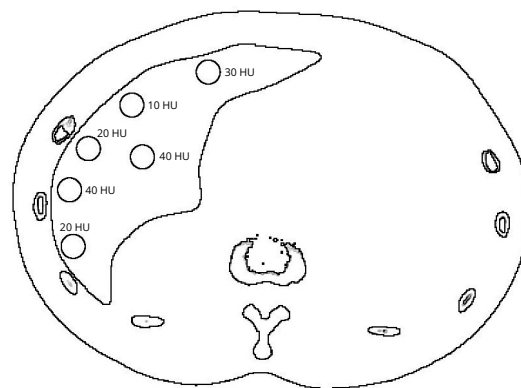
Exemplary image of section 3



Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.



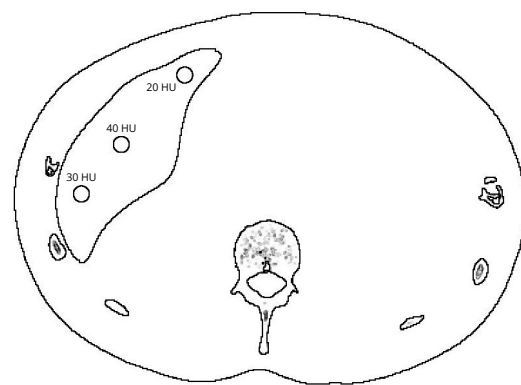
Exemplary image of section 4



Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.



Exemplary image of section 5

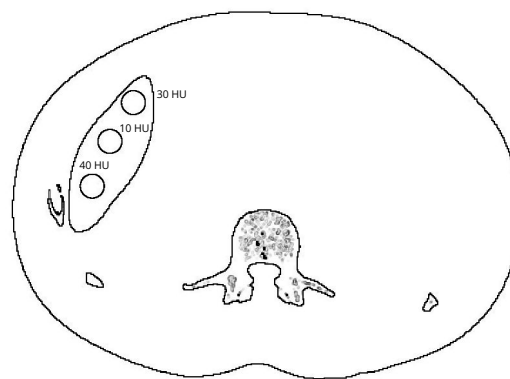


Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.

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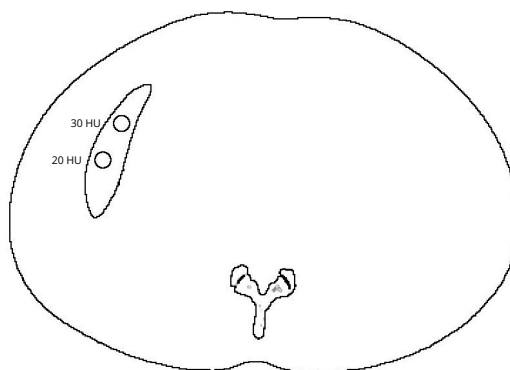
Exemplary image of section 6



Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.



Exemplary image of section 7



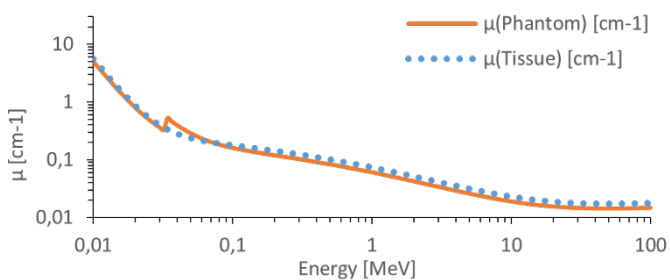
Drawing indicates lesion contrast to surrounding liver. Larger lesions have 12 mm diameter, smaller lesions have 8 mm diameter.

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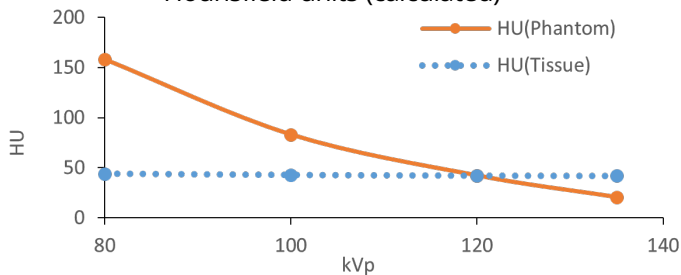
Attenuation properties

Soft Tissue

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

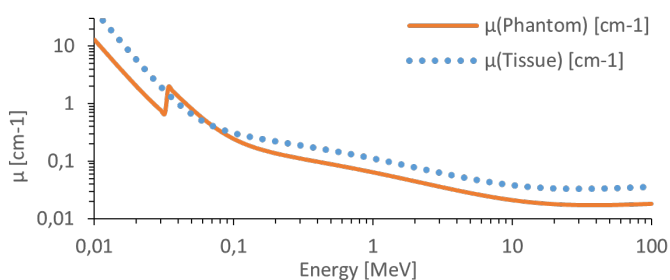


Hounsfield units (calculated)

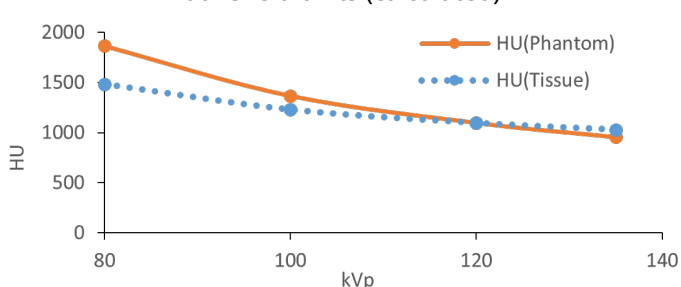


Bone Tissue

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.