



CT TE

CT Tissue Equivalent Phantom

Suitable for both kV and MV energies, CTTE is a tissue equivalent phantom consisting of a water equivalent nested head and body phantom each with 8 holes to house interchangeable inserts of different tissue equivalent materials as follows:

- Water equivalent (WT1)
- Adipose (AP7)
- Breast (BR12)
- Hard Cortical Bone (SB5)
- Inner Bone (IB7)
- Rib or Average bone (RB2)
- Lung (LN10)
- Soft Tissue (ST1)
- Kidney (KD1)
- Liver (LV1)
- Brain (Wte)

(Other insert materials available upon request)

The physical density (gm/cm³) and electron density of each tissue equivalent is provided with each CT TE phantom, and allows the user to determine the CT number corresponding to the different tissue equivalents.





CT TE

CT Tissue Equivalents

Elemental Composition

Elemental composition (by mass) and density

Tissue Type	Physical Density (g/cm ³)	Electron Density (m ⁻³ x 10 ²⁶)	Electron Density (relative to H ₂ O)
WT1 solid water	1.01 [^]	3310 [*]	0.99
LN10 lung-300	0.30 [^]	1000 [*]	0.30
AP7 adipose	0.92 [^]	2990 [*]	0.90
BR12 breast	0.98 [^]	3170 [*]	0.95
LV1 liver	1.06 [^]	3510 [*]	1.05
KD1 kidney	1.05 [^]	3480 [*]	1.04
IB7 inner bone	1.25 [^]	4010	1.20
RB2 average bone	1.31 [^]	4350	1.30
SB5 hard bone	1.81 [^]	5770 [*]	1.73
We true water	1.04 [^]	3460 [*]	1.03
BRN brain (as Wte)	1.04 [^]	3460 [*]	1.03

[^] Data from Barts Health NHS Trust
^{*} Data as stated in ICRU Report 44

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