

Pediatric Phantoms

Anthropomorphic thorax and abdomen phantoms in the size of an infant up to a young child. An excellent tool to validate IQ parameters or dose in a semi-anthropomorphic surrounding.

QRM-Pediatric-Phantoms providing an anthropomorphic shape of children at different age. These phantoms are giving many opportunities for realistic measurements of dose and image quality in X-ray diagnostics. The phantoms are designed to provide realistic organs and shapes and offer the physical X-ray attenuation properties of human tissues.

QRM-Pediatric-Thorax comprises artificial lung lobes, a spine insert, and shell of soft tissue equivalent material.

QRM-Pediatric-Abdomen comprises a fixed liver and spleen insert, a spine insert, and shell of soft tissue equivalent material. It is available as well in a blank version (without liver and spleen).

The plastics used in these antropomorphic phantom mimic human tissues with respect to density and X-ray attenuation characteristics of the human thorax and abdomen.

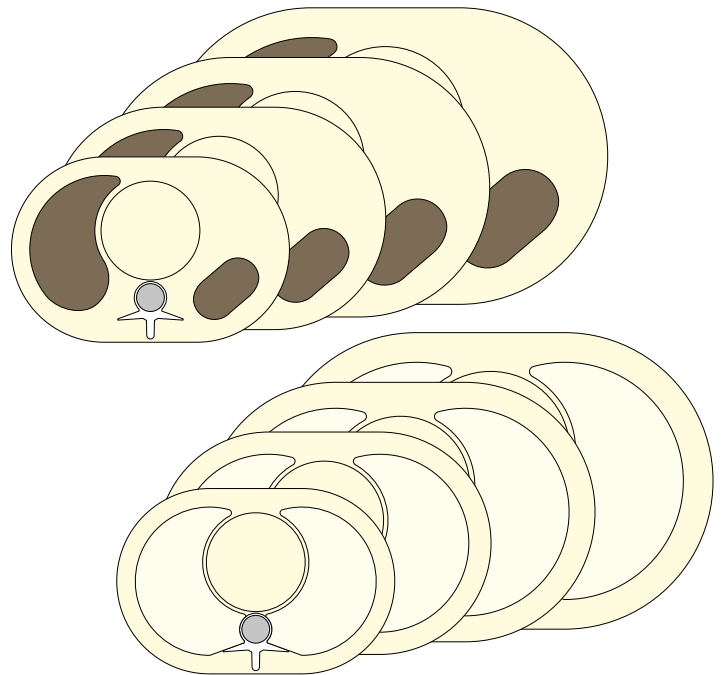
Optional available are a central bore to house an optional insert (mediastinal/stomach region).

For dosimetry purposes 5 bores to cover dose chambers are available as well. The bores are orientated as specified for CTDI measurements.

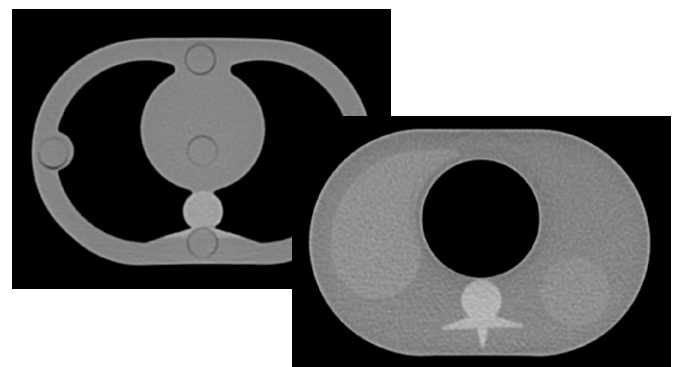
Ionization chamber adapters are available on request.



1 year, 6 years and young adult Thorax-Phantoms

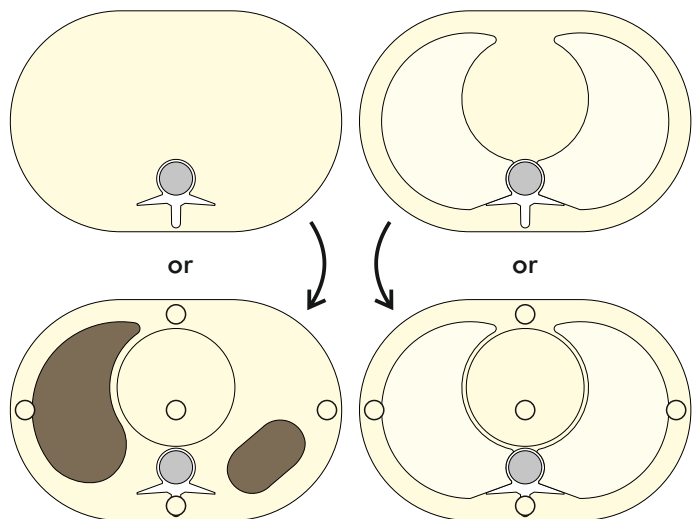


Pediatric phantoms at different age and size

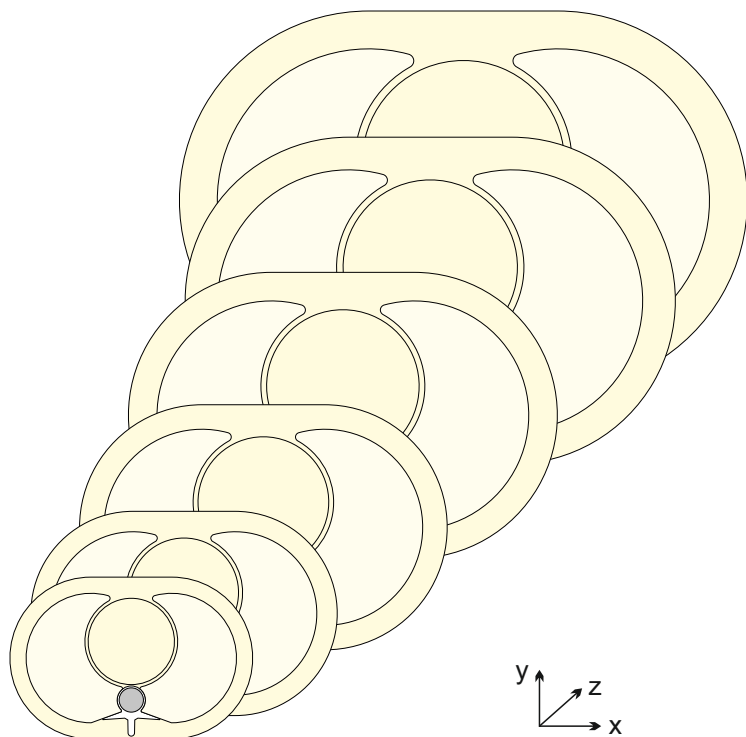


CT-scans of the phantoms

Pediatric Phantoms



Different versions of phantoms available:
standard, additional organs, central exchangeable inserts or dose bores



different dimensions available

Specifications

Materials: tissue 35 HU (at 120 kV)
lung app. -800 HU
liver / spleen 60 HU (at 120 kV)
spine bone like*

*offers attenuation properties as trabecular and cortical bone of the specific age

Measures of the phantoms:

Thorax/ Abdomen	xy [mm]	z [mm]	circumf. [mm]	BMI
Newborn	135x90	150	330	
1 year	150x100	150	415	17
3 years	180x120	150	497	16
6 years	210x140	150	580	16
12 years	240x160	150	663	18
15 years	270x180	150	745	20
18 years/ adult	300x200	100	828	21

Basic version of Pediatric Thorax:

- lung lobes, spine

Optional:

- dose bores
- central insert (blank)

Basic version of Pediatric Abdomen

- spine

Optional:

- organs (liver/spleen)
- dose bores
- central insert (blank)