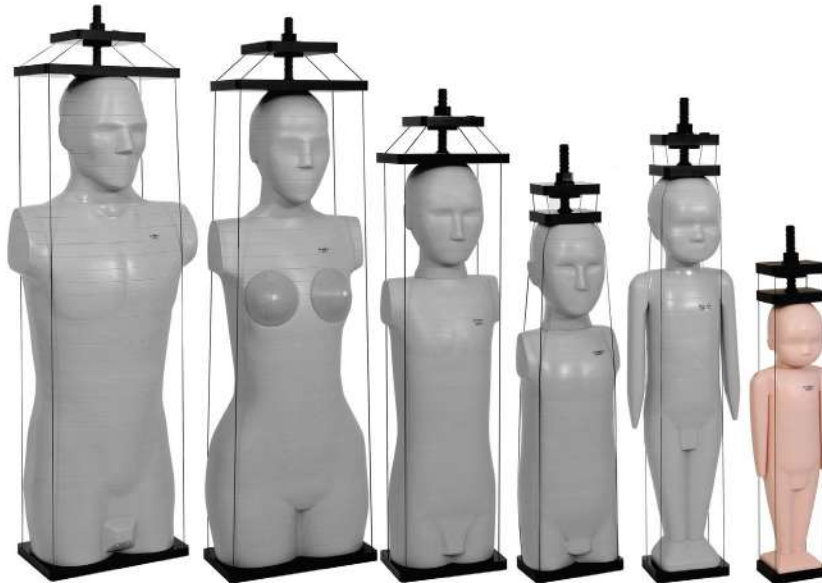




# Dosimetry Verification Phantoms

Model 701 - 706



## WHOLE BODY DOSE • ORGAN DOSE • THERAPEUTIC RADIATION

CIRS ATOM® phantoms are a full line of anthropomorphic, cross sectional dosimetry phantoms designed to investigate organ dose, whole body effective dose as well as verification of delivery of therapeutic radiation doses.

ATOM is the only line of dosimetry phantoms to range in sizes from newborn to adult. Six models are available: newborn, 1-year, 5-year and 10-year old pediatric phantoms as well as adult male and female phantoms.

Each phantom is sectional in design with traditional 25 mm thick sections. The sectional surfaces are extremely flat and smooth and do not require any special coatings or treatment. This results in minimal interfaces between the slabs when viewed in a scout or projection X-ray. The ATOM line also differs from other dosimetry phantoms by providing optimized TLD locations specific to 21 inner organs.

Tissue-equivalent epoxy resins are used in all aspects of the phantom. CIRS technology offers superior tissue simulation

by covering a wider range of energy levels from diagnostic to therapeutic. In addition, all bones are homogeneous and are formulated to represent age appropriate, average bone composition. CIRS bone formulations offer distinct advantages over natural skeletons and other types of simulated bone.

### Features

- Phantom models cover a wide range of patient ages
- Organ specific dosimetry with minimal detectors
- Superior tissue simulation and lifelike imaging properties
- Homogeneous bone
- Accommodates wide variety of detectors
- Age appropriate references

**CIRS**

Tissue Simulation & Phantom Technology

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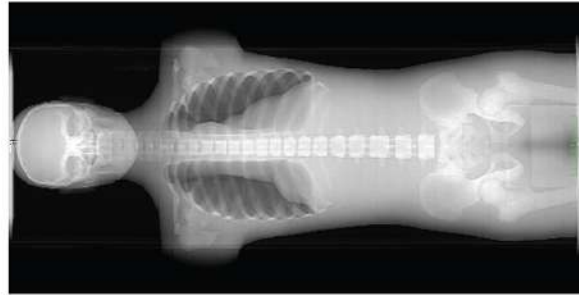


## DOSIMETRY VERIFICATION PHANTOMS

Model 701-706



ATOM Models 701-706



CT Scout of Model 701



ATOM Head & Neck, Thorax & Pelvis Sections

## SPECIFICATIONS

### ATOM ANATOMICAL AND MATERIAL REFERENCES

DESCRIPTION	HEIGHT	WEIGHT	THORAX DIMENSIONS	PHYSICAL DENSITY, G/CC	ELECTRON DENSITY, 1/CC
Adult Male	173 cm (26.8")	73 kg (195.6 lbs.)	23 x 32 cm (3.6 x 5")	1.60	$5.030 \cdot 10^{23}$
Adult Female	160 cm (24.8")	55 kg (147.4 lbs.)	20 x 25 cm* (3.1 x 3.9")	1.60	$5.030 \cdot 10^{23}$
Pediatric Newborn	51 cm (7.9")	3.5 kg (9.4 lbs.)	9 x 10.5 cm (1.4 x 1.6")	1.41	$4.498 \cdot 10^{23}$
Pediatric 1 year	75 cm (11.6")	10 kg (26.8 lbs.)	12 x 14 cm (1.9 x 2.1")	1.45	$4.606 \cdot 10^{23}$
Pediatric 5 years	110 cm (17.1")	19 kg (51 lbs.)	14 x 17 cm (2.1 x 2.6")	1.52	$4.801 \cdot 10^{23}$
Pediatric 10 years	140 cm (21.7")	32 kg (85.7 lbs.)	17 x 20 cm (2.6 x 3.1")	1.56	$4.878 \cdot 10^{23}$

### ATOM CONFIGURATIONS

COMPLETE PHANTOMS		-A	-B	-C	-D	-F	-G
MODEL NUMBER	DESCRIPTION	Without holes	Ø 5 mm holes in a 3 x 3 cm grid spacing	Ø 5 mm holes in a 1.5 x 1.5 cm grid spacing	Ø 5 mm Hole placement for Organ Dosimetry	Non-sectioned without holes	Ø 14mm Hole placement for Organ Dosimetry (nanoDot)
701	Adult Male Phantom (Sections 1-39)	Available	Available	Available	Available	Available	Available
702*	Adult Female Phantom (Sections 1-38)	Available	Available	Available	Available	Available	Available
703	Newborn Phantom (Sections 1-20)	Available	Available	Not Available	Available	Not Available	Not Available
704	1 Year Old Phantom (Sections 1-28)	Available	Available	Available	Available	Available	Available
705	5 Year Old Phantom (Sections 1-26)	Available	Available	Available	Available	Available	Available
706	10 Year Old Phantom (Sections 1-32)	Available	Available	Available	Available	Available	Available
PARTIAL PHANTOMS							
701-HN	Adult Male Head & Neck Phantom (Sections 1-10)	Available	Available	Available	Available	Available	Available
701-T	Adult Male Thorax Phantom (Sections 11-25)	Available	Available	Available	Available	Available	Available
701-P	Adult Male Pelvis Phantom (Sections 26-39)	Available	Available	Available	Available	Available	Available
702-HN	Adult Female Head & Neck Phantom (Sections 1-10)	Available	Available	Available	Available	Available	Available
702-T*	Adult Female Thorax Phantom (Sections 11-23)	Available	Available	Available	Available	Available	Available
702-P	Adult Female Pelvis Phantom (Sections 24-38)	Available	Available	Available	Available	Available	Available
705-HN	5 Year Old Head & Neck Phantom (Sections 1-8)	Available	Available	Available	Available	Available	Available
705-TR	5 Year Old Trunk Phantom (Sections 9-26)	Available	Available	Available	Available	Available	Available
706-HN	10 Year Old Head & Neck Phantom (Sections 1-9)	Available	Available	Available	Available	Available	Available
706-TR	10 Year Old Trunk Phantom (Sections 10-32)	Available	Available	Available	Available	Available	Available

\*Adult female does not include breast attachments.  
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 Specifications subject to change without notice.  
 Publication: 701 706 DS 080715



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