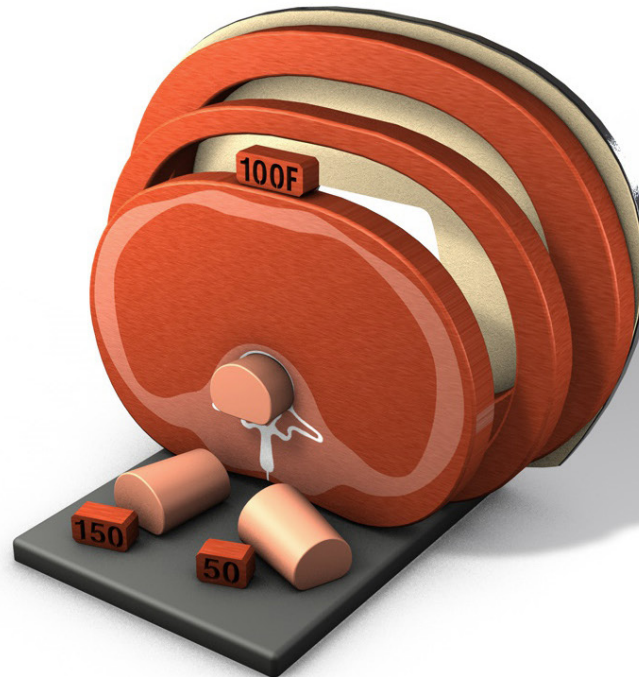


CT Simulator For Bone Mineral Analysis

Model 004



SIMPLE • EFFECTIVE • ACCURATE

Change in trabecular bone mineral content is an early indicator of change in metabolic function. CT, with its superior contrast discrimination, is a major tool in the evaluation of trabecular bone in the central skeleton. All CT scanners require a standard of reference to properly perform quantitative tissue analysis.

The CIRS Model 004 CT Simulator for Bone Mineral Analysis is designed to take into account all the known sources of variance affecting the measurement of density in the vertebral area by simulating the average patient's anatomy in terms of shape and density by using materials essentially equivalent to human tissues as far as X-ray interactions are concerned, including age-related variations in vertebral composition.

The design of the system permits reduction of all sources of error within acceptable limits. Careful and precise manufacturing and quality controls insure that all phantoms are identical in order to create a general and uniform standard applicable to all scanners. The basic principle of operation is to sufficiently simulate the patient's anatomy, and then to scan the patient and the phantom in succession with identical technical factors.

The Model 004 works with all CT Scanners and permits serial examinations of the patient irrespective of scanner use. Data interpretation and analysis can be performed "off line" to eliminate unnecessary scanner time.

Features

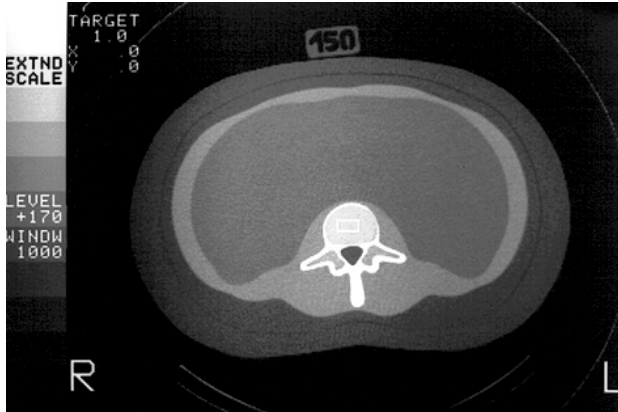
- Use immediately on any CT scanner
- Monitor effects of therapy on trabecular structure
- Directly measure calcium hydroxyapatite content
- Accurate correlation for quantitative studies
- Age-related variable corrections for marrow fat and mineral content
- Simulates the size, shape and CT density of human tissue
- Requires no special scanner software
- PC based report software

2428 Alameda Avenue Suite 316 • Norfolk, Virginia 23513 • USA
Tel: 800.617.1177 • 757.855.2765 • Fax: 757.857.0523

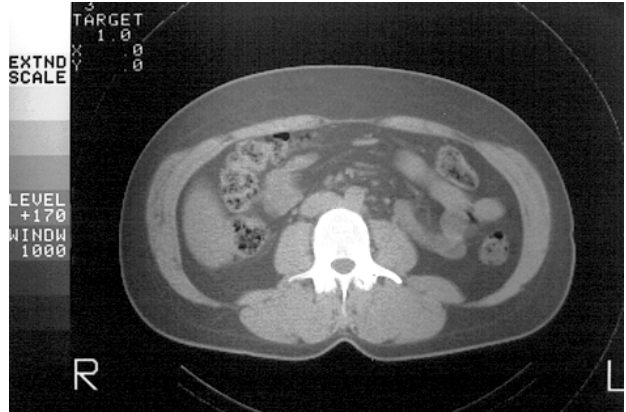
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CIRS

Tissue Simulation & Phantom Technology

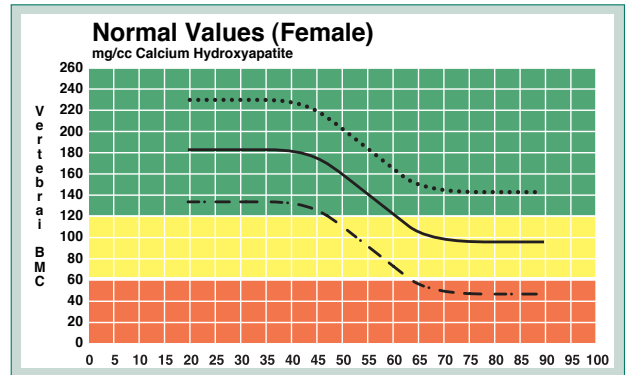


Phantom image with 150 mg/cc insert & Attenuator Ring



Patient image

MODEL 004 CIRSCALC® Software produces detailed graphic reports on your stationary.



SPECIFICATIONS

OVERALL DIMENSIONS:	40.6 cm x 38 cm x 30.5 cm (16" x 15" x 12")
WEIGHT:	5.9 kg (13 lb)
MATERIALS:	Phantom Body: Tissue Equivalent Epoxy Materials Inserts: Calcium Hydroxyapatite

MODEL 004 INCLUDES

QTY	DESCRIPTION
1	Tissue Equivalent Lumbar Section
1	Medium and Large Attenuator Rings
1	Tissue Equivalent vertebral inserts 50, 100, 150 mg/cc calcium hydroxyapatite
1	Slice Thickness Gauge (Collimator)
1	Acrylic Support Board and Base Stand
1	Product Brochure & User Guide
1	CIRSCALC® Software (CD-ROM for DOS or Windows)
1	Foam lined Storage Case

References:

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Levi, C., Gray, JE., McCullough, EC., Hattery, RR. The unreliability of CT numbers as absolute values. American Journal of Roentgenology, Vol 139 (3), pgs. 443-47, 1982.

Lampmann, L. E. H., S. A. Duursma, and J. H. J. Ruys. CT Densitometry in Osteoporosis: The Impact on Management of the Patient. Series in Radiology, 9. Boston: M. Nijhoff, 1984.

Cann CE, and HK Genant. Precise Measurement of Vertebral Mineral Content Using Computed Tomography." Journal of Computer Assisted Tomography, vol 4 (4), 1980.

