

CT Simulator For Bone Mineral Analysis

A simple and effective method for accurate and reliable bone mineral measurements.

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.

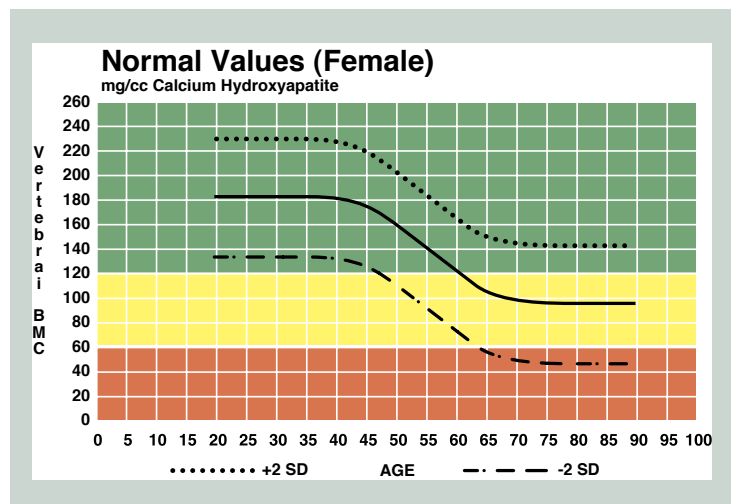
The Model 004 takes into account all known variability factors that can adversely affect the use of CT for bone densitometry. The CIRS anthropomorphic phantom design minimizes beam hardening effects and variances associated with scan field position.

The Model 004 is the CT densitometry system to provide a solid epoxy matrix with true calcium hydroxyapatite references. The system provides extremely stable density references and does not require special extrapolations or complex calculations.

The reporting software runs on a PC or Macintosh platform and does not require CT scanner time. The Model 004 system is designed to be used immediately on any whole body CT scanner and does not require special setups or software configurations.



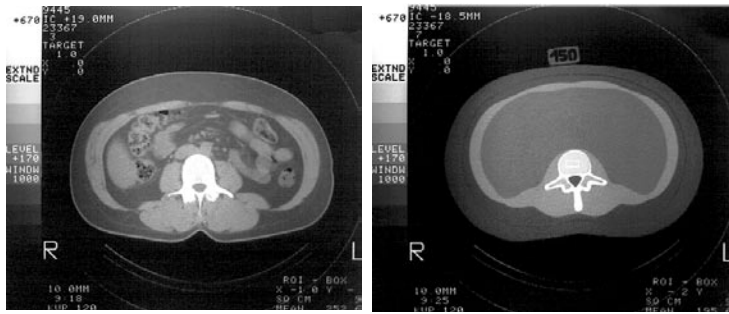
Model 004



Tissue Simulation &
Phantom Technology

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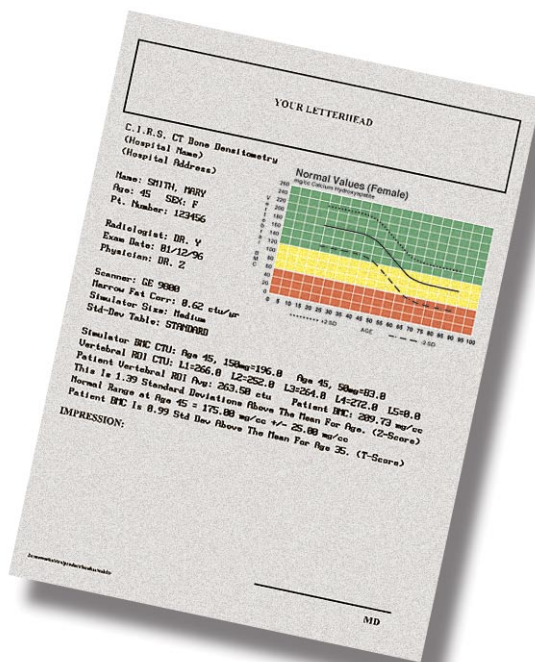
MODEL 004 Includes:

- Tissue Equivalent lumbar section
- Medium and large attenuator rings
- Tissue Equivalent vertebral inserts 50, 100, 150 mg/cc calcium hydroxyapatite
- Slice thickness gauge
- Acrylic support board and base stand
- Technical manual
- Graphic report software (DOS or Windows)
- Manual work sheets and report forms (optional)
- Custom foam lined carrying case Dimensions: 22" 1/4 x 14" 1/2 x 17"
- Instructional videotape
- Informative patient literature
- Technical hot line

Phantom Benefits:

- Accurately simulates the size, shape and CT density of human tissue
- Includes standard vertebral inserts of varying density to permit accurate correlation for quantitative studies
- Provides the age-related variable corrections for marrow fat and mineral content
- Provides direct measure of calcium hydroxyapatite content avoiding the need for special extrapolations
- Requires no special scanner software
- Ideal for monitoring effects of therapy on trabecular structure
- Includes PC based report software
- Can be used immediately on all whole body CT scanners

User Friendly Report Software:



MODEL 004 computer PC software produces detailed graphic reports on your stationary.

References:

- (1) Levi C, Gray JE, McCullough EC, Haterly RR, The unreliability of CT numbers as absolute values. AJR 1982;139:443-447
- (2) Lampmann LEH, Duursma SA, Ruys JHJ, CT densitometry in osteoporosis 1984; Martinus Nijhoff
- (3) Cann CE, Genant HK: Precise measurement of vertebral mineral content using computed tomography. J Comput Assist Tomography 4:493,1980