

**OSIEO - Comparison with Reference Data**

Osteo  
1  
Female, 79 Years  
21-Jul-2003

Average over ( - , L2, - )  
Corresponding scans ( 2, 3, 4 )

BMD (mg Ca-HA /ml) : 53.3  
T-Score (20 yr.) : -3.64  
Z-Score : -0.64

mg Ca-HA /ml

Age (yr.)	+1SD	MEAN	-1SD
20	~180	~150	~120
40	~160	~130	~100
60	~130	~100	~70
80	~100	~70	~40

Siemens Sonatop Ref. Data/Normal Female 71.1mg Ca-HA /ml

**Osteo - Evaluation Result of -**

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509 IMA 1, 2, 21-Jul-2003, 11:14:31

Bone Mineral Density of - [mg Ca-HA /ml] ( and Pixel Standard Deviation ) :

	Left	Right	Total
Tribecular	60.3 (41.5)	67.4 (44.1)	<b>64.0 (43.0)</b>
Cortical	214.9 (92.1)	266.5 (97.7)	<b>238.7 (96.1)</b>

Recon Viewing Filming 3D Osteo

Osteo

Start Evaluation

Accept Contours

Skip Image

New Contours

End Evaluation

## syngo Osteo CT

Non-invasive method for measuring the Bone Mineral Density (BMD) of the lumbar spine

# Features & Benefits

Osteo CT provides bone mineral density measurements of the cortical and trabecular bone – free of superposition. The measurement of the trabecular bone is important because this bone has a high metabolic activity and is thus a very sensitive indicator for early bone loss and effects of treatment.

Osteo CT is used for accurate assessment of the bone mineral density, thus aiding the physician in the diagnosis of osteoporosis, identification of fracture risk and in monitoring the effect of treatment.

The acquisition and evaluation can be performed in only a few minutes.

## General

- Acquisition of three mid-vertebral slices with pre-defined scan protocol\*
- Osteo mattress with cavity for the calibration phantom and gel pack sponge for correct patient positioning (lordosis) during acquisition\*
- Evaluation on a separate syngo task card on the user interface

## Evaluation

- Automatic contour tracing of the trabecular and cortical bone with easy manual interaction and modification
- Automatic result calculation of cortical and trabecular BMD
- Siemens Standard Comparison table with a healthy bone reference group (age- and sex-specific based on data from three European centers) or with a user-defined reference data base
- Display of standard deviation either  $\pm 1$  or  $\pm 2$
- Output of the Z-score (age matched controls), T-score (at peak bone mass) and BMD
- BMD values can be compared within the SOMATOM family because the individual patient result is re-scaled to the ESP-standard (European Spine Phantom)

## Documentation

- Possibility to export results to floppy disc for further statistical evaluation
- Filming of the Osteo CT results can be linked to a specified film format

\* Not applicable for LEONARDO workstation