DEXXUM T

The innovative Axial DEXA

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Design concept

Technical specifications

System

X-Ray system	*DEXA (Dual Energy X-ray Absorptiometry)*
Scanning method	*Pencil beam*

Performance

Scan site	*AP Spine, femur (dual femur)*
Scan type	*Non-stop scan (AP Spine, dual femur)*
Scan time	*(Fast) AP Spine: 1 min. 25 sec. Femur: 1 min. 5 sec.* *(Normal) AP Spine: 3 min. 07 sec. Femur: 2 min.*
Precision/Accuracy	*<1.0 %*
Measured parameters	*BMD, BMC, area, tissue thickness*
Calibration system	*Automatic calibration, daily QC phantom*
Patient positioning	*Laser aid positioning (plus shape type)*
Image transmission	*DICOM system*

Required computer workstation

Operationg system	*Windows XP, Windows Vista*
Monitor	*LCD monitor (1280 X 1024 pixel)*
Printer	*Color ink jet with 300*300 dpi resolution*

Dimensions and Weight

Dimensions	*Full size: 2000*800*1221 (mm)* *Medium size: 1900*800*1221 (mm)* *Compact size: 1850*800*1221 (mm)*
Weights	*130.5 kg*

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Dimensions

1. *Full size : 2000 * 800 * 1221 (mm)*
2. *Medium size : 1900 * 800 * 1221 (mm)*
3. *Compact size : 1850 * 800 * 1221 (mm)*
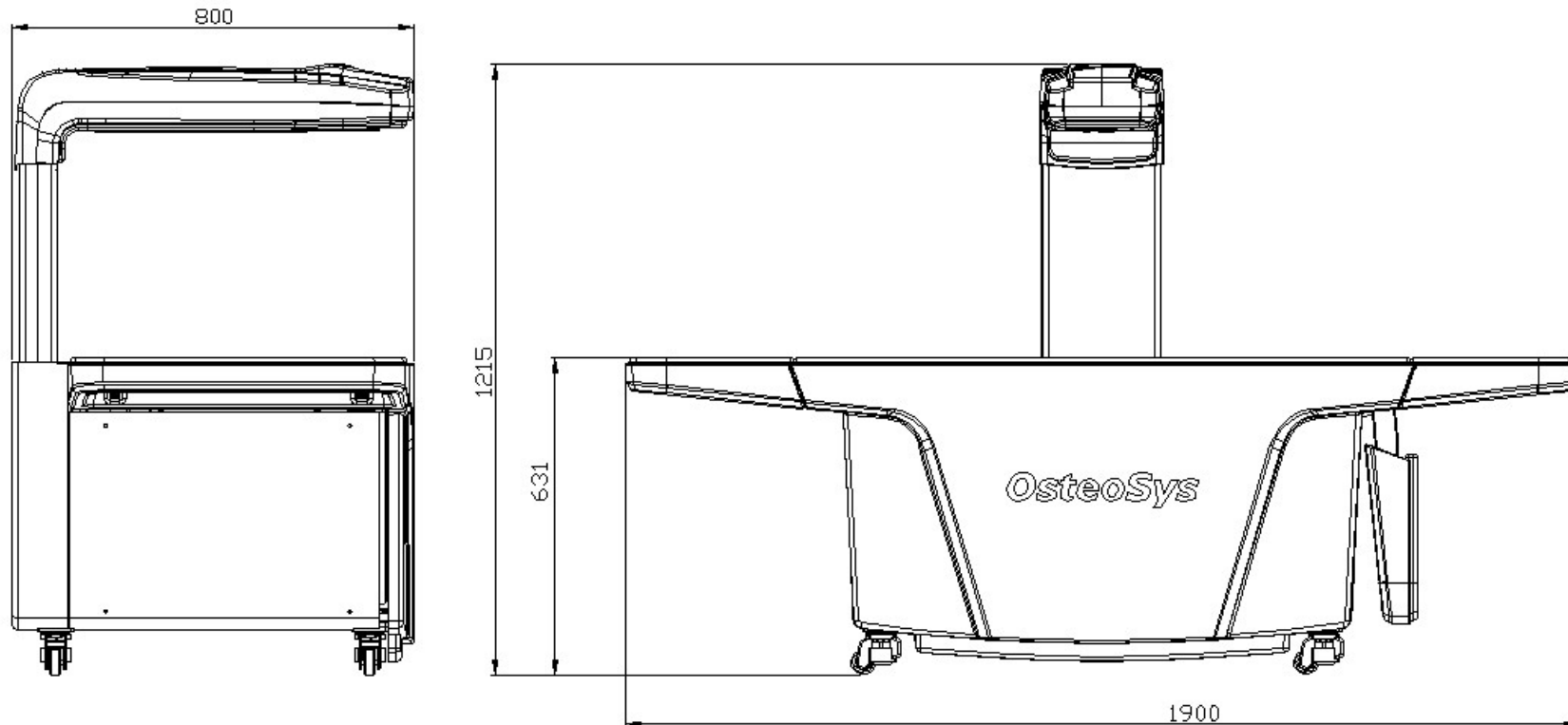
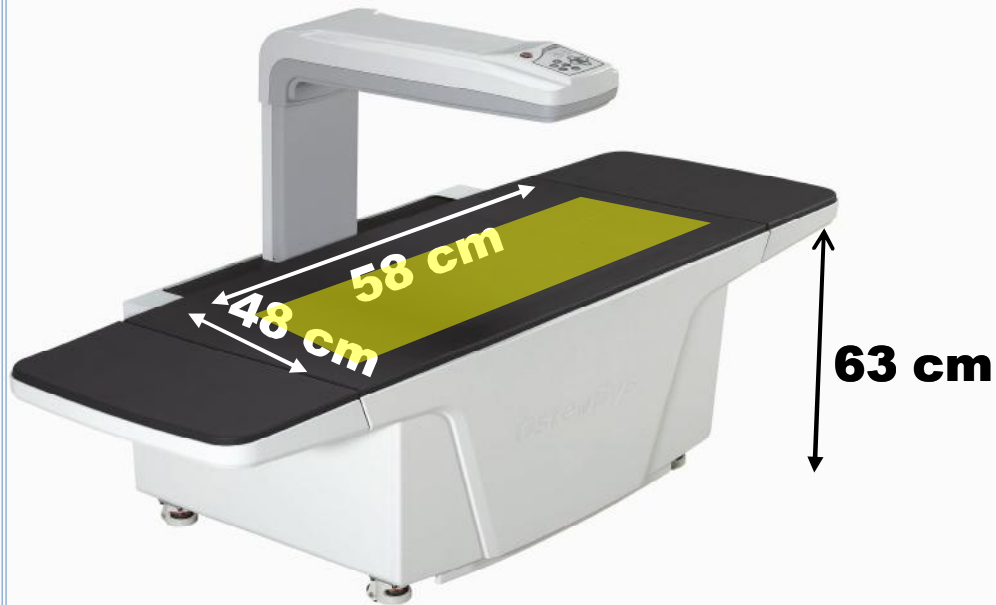
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Color options

DEXXUM T

The Evolution of X-ray Absorptiometry

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Scan windows

DEXXUM T

58 cm

48 cm

63 cm

ROI scanning sites
Scan windows: 58 cm * 48 cm
Bed high : 63 cm

GE LUNAR
DPX - BRAVO

41cm

55cm

70cm

Scan windows : 55cm * 41cm
Bed high: 70 cm

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Scan windows

MEDI LINK
OSTEOCORE

MEDI LINK
OSTEOCORE 2

15cm
20cm
78cm

53cm
40cm
78cm

Scan windows: 15cm * 20cm
Bed high : 78cm

Scan windows: 40cm * 53cm
Bed high : 78cm

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Scan time

Manufacturer	OSTEOSYS	GE LUNAR	MEDI LINK
Model	*DEXXUM T*	DPX-BRAVO	OSTEOCORE
Scan time	AP Spine: **85** sec. Femur: **65** sec.	AP Spine: **90** sec. Femur: **90** sec.	AP Spine: 360 sec. Femur: 360 sec.

DEXXUM is the fastest central DEXA in pencil beam.

Innovative functions

- **Excellent reproducibility (Precision & Accuracy less than 1%)**

  the systems scan area precision and reproducibility with cross point laser site marking produce accurate and repeatable data measurement

- **Fast Scan Time** for improved patient experience and more available scanning time reduce costs

  AP Spine: 1 min. 25 sec.

  Femur: 1 min. 05 sec.

- **Comprehensive report**: Dexxum T provides detailed test information

  Patient results are compared with young normal (T-Score) and age-matched (Z-Score) reference populations in a clear graphical report

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Innovative functions

- **Real Non-stop scan**
  up to 3 areas for a single scan (AP spine & dual femur)

- **Auto ROI (Region Of Interest)**
  Automatic ROI division after each measurement

- **Auto tube current setting is optimized for patients size**
  Calculated from their height and weight

- **Point edit**
  Delete/add functions to divide the Bone and Tissue area to reduce BMD calculation error
  (as a result of fracture, implant or surgery parts, etc.)

- **Automatic Data Base Back-up system every fridays**

- *Multiple database print functionally by date of measurement, analysis date and average thickness information*

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Innovative functions

- *Daily test ensures device stability for routine operation*
- *Easy data entry and management to register and edit the patient details and BMD measurements*
- *Color image support*
- *Specify for each ROI area the representative value*
- *Minimize site errors using cross laser point for site measurement and identification*
- *Multiple language support*
- *Automatic division of soft tissue*
- *Comparing data system for multi scan reviews*
- *DICOM system support (for image transmission)*
- *Personalize reports with options to integrate Hospital/ Logo*

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Daily calibration

1. Click calibration
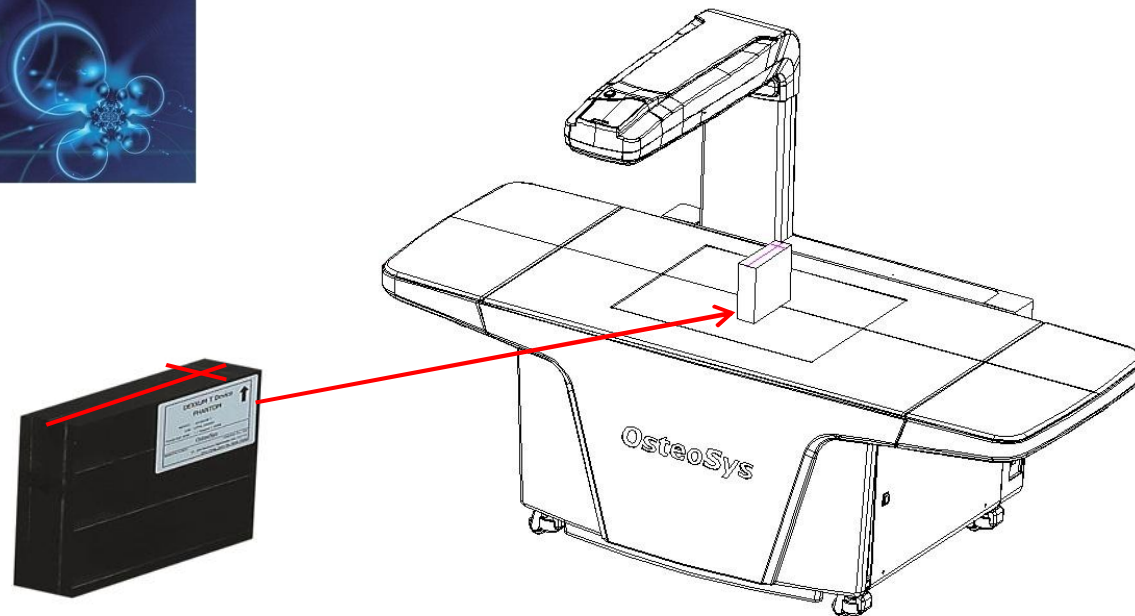
* Daily test will take aprox. 15 minutes.

Measurement
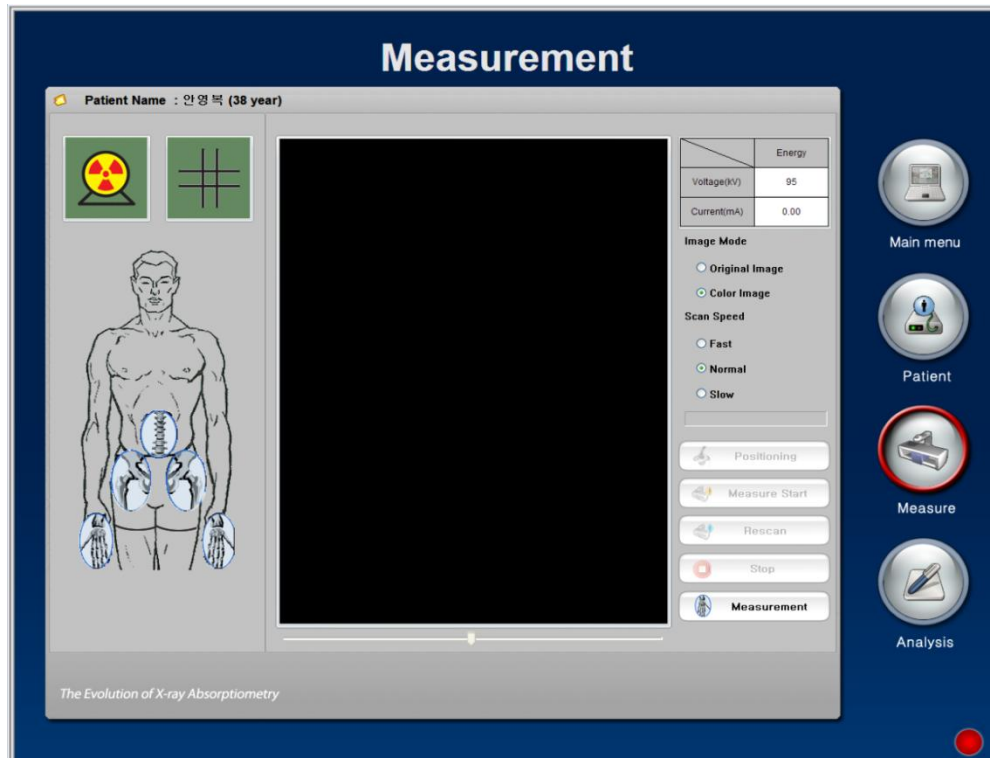
- Completed register a new patient or found a patient to measure.

- Patient lie on the table, operate PC

- Click "Positioning" and "Measure Start"

- Selection;

  Image Mode

  Scan Speed

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Patient positioning
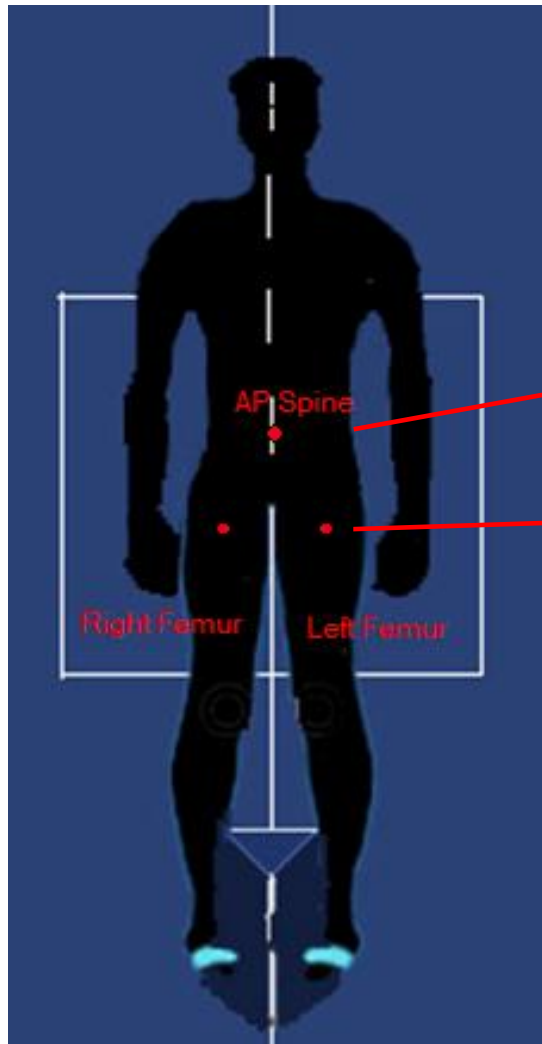
Umbilicus for Spine

Femur: Middle of femur and bellow 15~20cm from trochanter
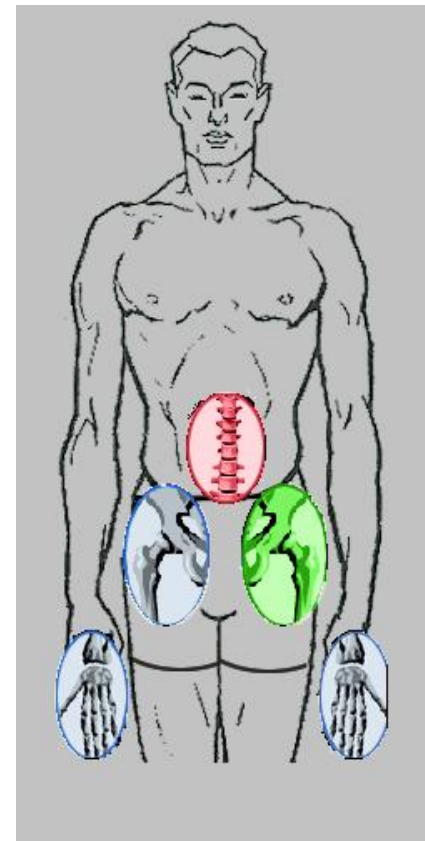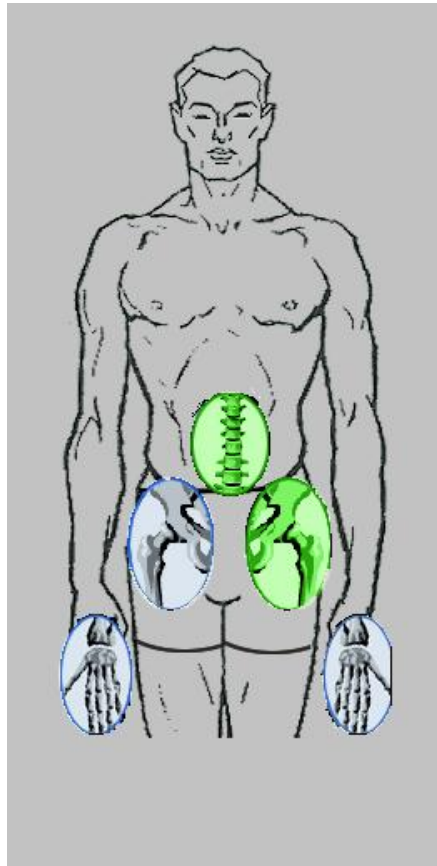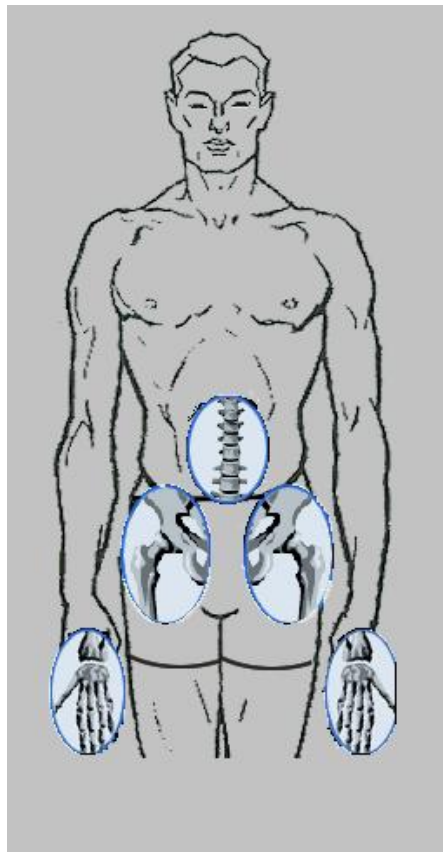
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- **Image on the PC monitor will be changed to green color by selecting switch panel.**
- **Red color is completed measuring or under measuring.**
- **Right images show is selected Left Femur & Spine.**

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Analysis monitor

- Measurement completed, click menu in the left.

- Red circle is to see "Left Femur".

- Green circle is to see "Sine".

Find ROI (Spine)

- Set ROI is automatic function.

- Not all the automatic ROI is correct, fully enough.

- User can change ROI set by moving position & adjusting inclination.

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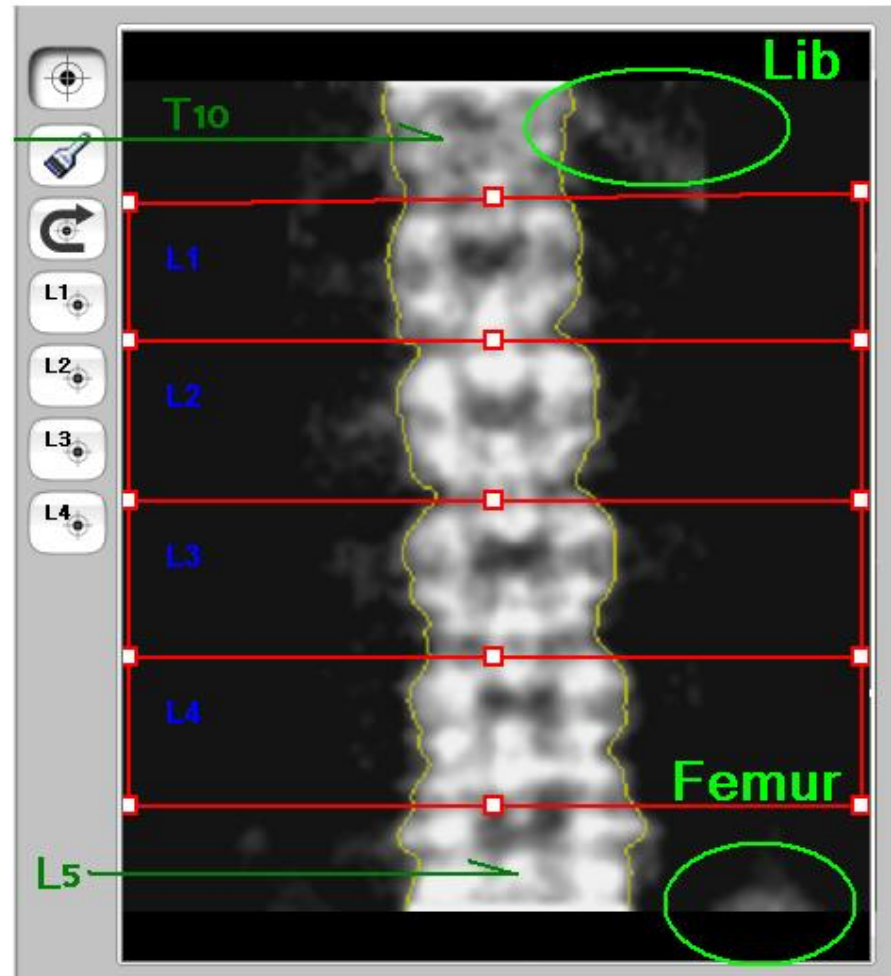
Edit selection keys

Delete image

ROI Set

Brush

ROI Reset

L1 L2 L3 L4:
remove any area

Add Study Command

Representative T-score: Average T-score between L1~L4

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Edit selection keys

ROI edit

Bar Up/down

Adjust inclination

Choose image color

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Find ROI (Femur)

- Set ROI is automatic function.

- Not all the automatic ROI is correct, fully enough. User can change ROI set by moving position & rotating angle.

- Yellow circle: Should include Trochanter & Shaft in the triangle.

- Ward is positioned in the center of femoral neck where dark colored.
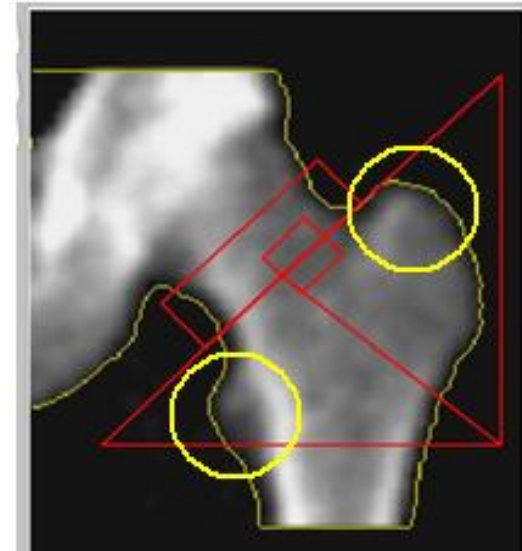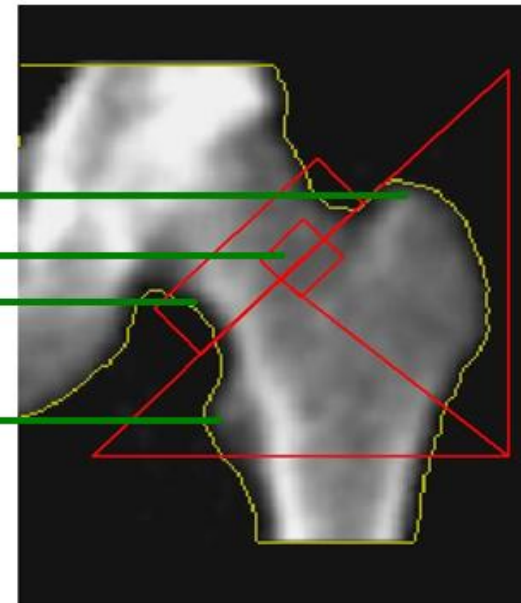
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Set ROI

- To set ROI by manual, click the "ROI set" button(yellow circle)

- Adjust angle.

- Red square is the right angle with direction of femur. Also the center of the square is on the center of femoral neck where the dark area(Ward's triangle).

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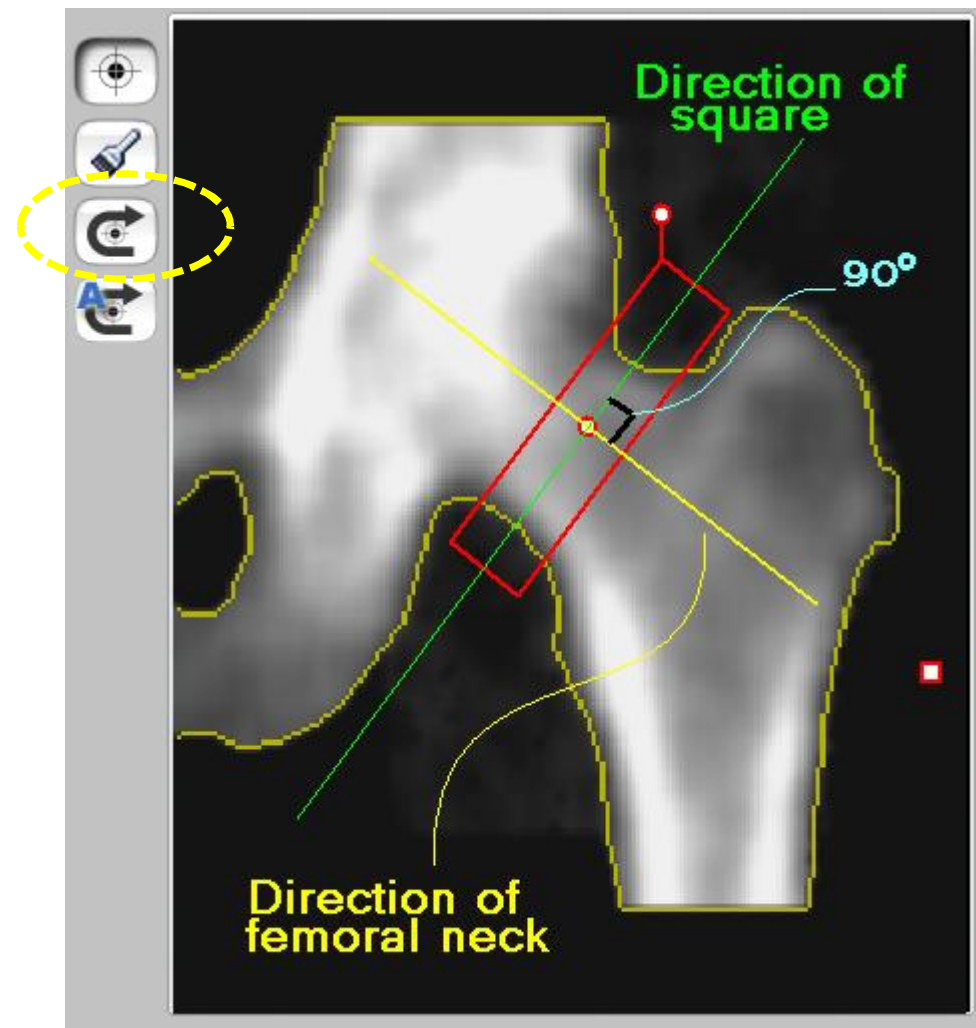
Set ROI

Rotate angle

Move angle

Apex of triangle

Representative T-score: Neck value

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Brush function

- Bone: Showing Bone area only and can add up bone with brush where actual bone was not shown.

- Tissue, Neutral & Artifact are the same method with that of Bone.

- These functions are to compensate any area omitted, incorrect scan or remove any artificial materials in the ROI.
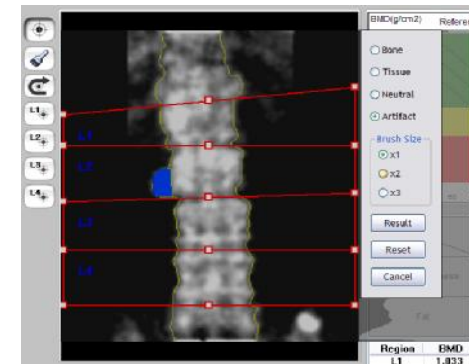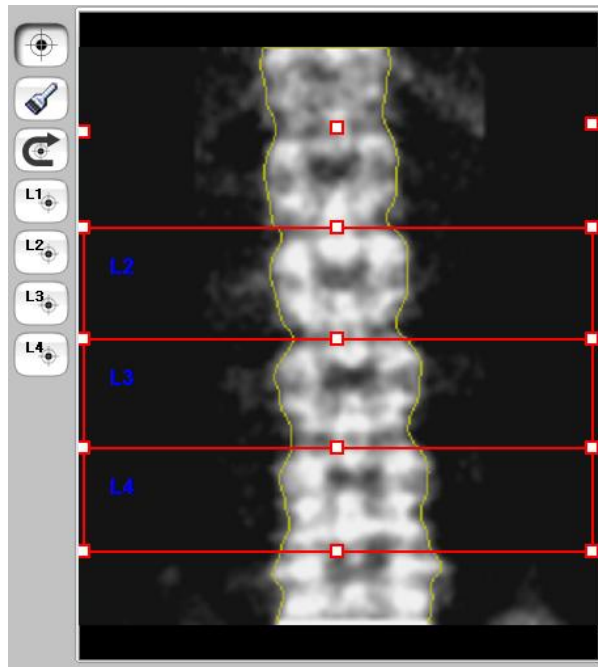
Bone only
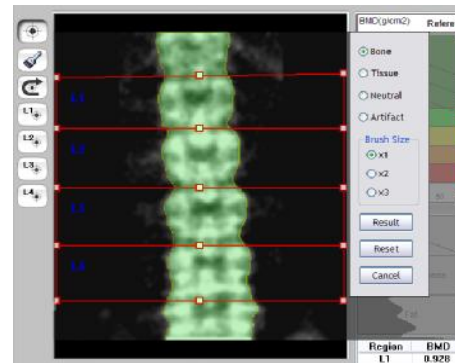
Tissue only

Neutral

Artifact

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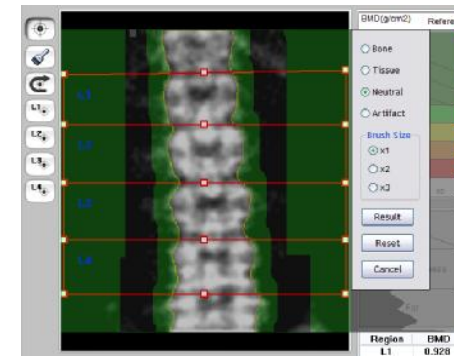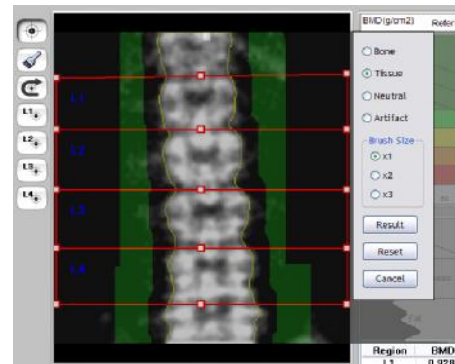
Edit Spine

Region	BMD	T-Score	Z-Score
L1	-	-	-
L2	1.031	-1.4	-1.8
L3	0.961	-2.0	-2.4
L4	1.096	-0.9	-1.3
L1-L2	1.031	-1.0	-1.4
L1-L3	0.996	-1.4	-1.8
L1-L4	1.029	-1.3	-1.7
L2-L3	0.996	-1.6	-2.0
L2-L4	1.029	-1.4	-1.9
L3-L4	1.029	-1.5	-1.8

No result in L1

Delete L1 : Choose User L1

- User can remove any area where do not want to include in the result.
- The above is showing removed L1 and result was removed accordingly.

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Histogran

- Histogram shows bone density.

- It is to find ROI easily, find area where bone was pressed.

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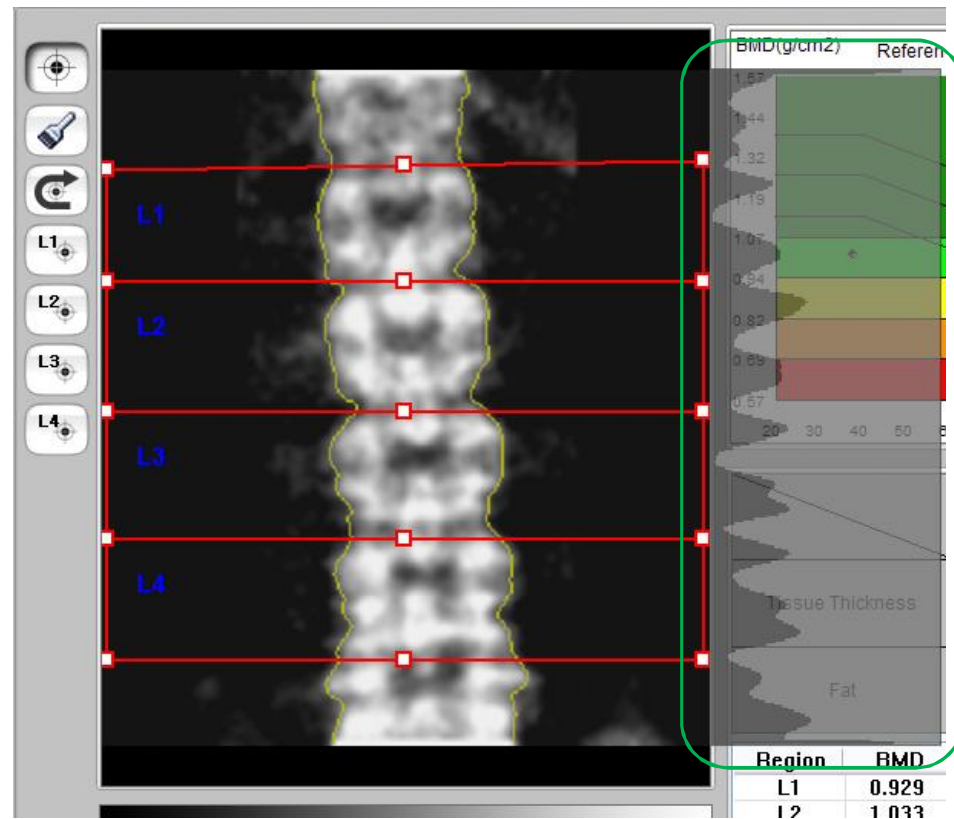
Report print

Print out analyzed information:
Spine, Femur .
Tissue, measure date, Bone length,
width also can print out

Trend and print

Monitor image

Printed image

See the patient's Bone Density trend in each site

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We look forward to hearing from you
soon.
Thank you!

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