

# SCANNING LATERAL SPINE

The Lateral Spine Scan procedure estimates bone mineral in the lumbar spine using a lateral projection. The region of interest is the L2, L3 and L4 vertebral bodies. The analysis software excludes the posterior elements from the calculations.

**This supplement is to be used in conjunction with the XR Series Operator's Guide or the Excell Operator's Guide.**

The process begins with a Scout scan over the lumbar spine area. The Scout scan should start 2 cm above the lowest point of the rib cage and extend to 2 cm below the iliac crests along a centerline that is approximately 10 cm anterior to the patient's back. The operator visually confirms the computer defined measurement regions of interest are correct, then the Measurement scan is taken. Computer-generated regions of interest are analyzed and results are displayed. The region of interest can be modified, but is usually not necessary. The results are saved and printed to complete the study.

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## Detailed Scan Specifications

Detailed Lateral Spine Scan Specifications

Scan Site	Lumbar Spine (L2-L3, L3, L3-L4) - Lateral View
Accuracy <sup>a</sup>	Typically within 1.0% of industry standard
In vivo Precision <sup>b</sup>	See table below
Scout Scan Resolution	1.5mm x 3.0mm: Point resolution x line spacing (pixel size)
Scout Scan Speed	60mm/sec
Measurement Scan Resolution	1.0mm x 1.0mm: Point resolution x line spacing (pixel size)

a. Based on Standard Speed scans of an anthropomorphic phantom.

b. Based upon 42 scans of 7 subjects (single vertebra) and 33 scans of 3 subjects (two vertebra) using standard procedures.

		Two Vertebra C.V.			Single Vertebra C.V.		
Measurement Scan Mode	Measurement Scan Speed	BMD	BMC	AREA	BMD	BMC	AREA
Standard	15mm/sec	2.4%	3.7%	2.2%	2.7%	4.5%	3.6%
High Speed	30mm/sec	3.7%	6.1%	3.3%	4.5%	6.7%	3.3%

\*\*\* All specifications are subject to change without notice. \*\*\*

## Patient Dose

The radiation dose to the patient is dependent on the type of scan procedure and the body thickness of the patient.



Scout Scan Skin Entrance Dose

Patient Thickness (cm)	Entrance Dose (mrems)
0-3	0.02
>3-6	0.03
>6-9	0.04
>9-12	0.05
>12-15	0.10
>15-18	0.17
>18-21	0.32
>21	0.49

Measurement Scan Skin Entrance Dose (mrems)

Patient Thickness (cm)	High Precision	Standard	High Speed
0-7	0.51	0.26	0.13
>7-10	0.73	0.37	0.18
>10-13	1.07	0.54	0.27
>13-16	1.33	0.67	0.33
>16-19	2.53	1.27	0.63
>19-22	4.27	2.13	1.07
>22-25	7.93	3.97	1.98
>25	12.33	6.17	3.08

## Operator Dose



The dose to the operator is negligible. During a scan, the radiation level at a distance of one meter from the scanner table is less than 0.1 millirems per hour.

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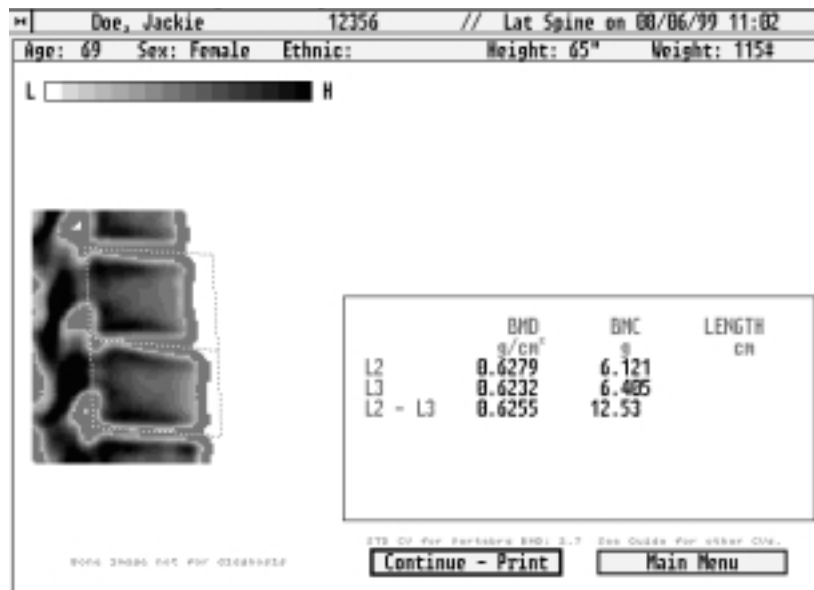
## **Maintaining High Quality Lateral Spine Scans**

Patient positioning, scan and analysis techniques can influence the precision and accuracy of Bone Density estimations. Facilities can reduce the adverse effects of some of these factors by:

- Performing and monitoring the daily QA procedure to verify that other radiation sources (X-ray machines, nuclear imagers) are not affecting the performance of the Norland Bone Densitometer.
- Ensuring that all operators position patients and analyze data in the same manner.
- Screening patients for recent radionuclide uptake procedures. Residual emission may be misinterpreted by Norland Bone Densitometers as X-rays.
- Screening patients for recent ingestion of radiopaque substances. Barium or other dyes used in some X-ray procedures could result in increased soft tissue X-ray absorption.
- Screening patients for prosthetic devices, implants, surgical staples, or other high density sub-dermal materials that may affect density estimates.
- Ensuring that scan and analysis parameters remain constant for all scans of the same patient.

An example of a good quality lateral spine scan is displayed in Figure 1.

FIGURE 1



- The spine is straight.
- The vertebrae are encompassed by the cursors and positioned properly.
- The ribs are not obscuring L2 and/or the crest is not obscuring L4.

## Initial Setup

## Scanning Setup

1. Select *Main Menu* item **Setup** and click on **Scanning**.
2. Select "Lateral Spine" at the Scan Type Selection screen. The following screen will display. The defaults shown should be effective for most scanning situations.

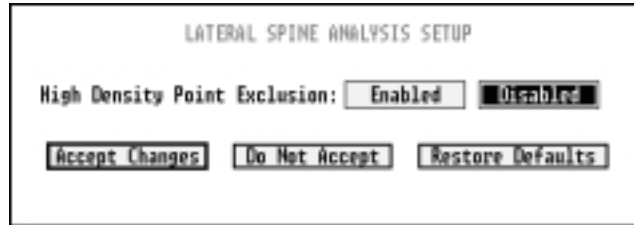
LATERAL SPINE SCAN SETUP			
	Scout	Measure	
Resolution:	1.5 x 3.0	1.0 x 1.0	mm
Scan Width:	14.25	10.00	cm
Scan Length:	As Marked	As Marked	cm
Scan Speed:	130.0	30.0	mm/sec
	<input type="radio"/> High Precision	<input checked="" type="radio"/> Standard	<input type="radio"/> High Speed
Snap Measure Scan on Axis:	<input checked="" type="checkbox"/> Enable <input type="checkbox"/> Disable		
<input type="button" value="Accept Changes"/> <input type="button" value="Do Not Accept"/> <input type="button" value="Restore Defaults"/>			

Select desired parameters and click on **[Accept Changes]** to set as default.

- High speed option sets Measure Scan speed to 60 mm/sec (Scout Scan speed is always 130 mm/sec).
- High Precision speed sets Measure Scan speed to 15 mm/sec (Scout Scan speed is always 130 mm/sec).
- Snap Measure Scan on Axis should be enabled to force scans on axis.
- A Measure Scan Width of 8 cm is recommended for most female patients.
- A Measure Scan Width of 9 cm is recommended for most male patients.

## Analysis Setup

1. Select *Main Menu* item **Setup** and click on **Analysis**.
2. Select “Lateral Spine” at the Scan Type Selection screen. The following screen will display. The defaults shown should be effective for most scanning situations.



Select desired parameters and click on **[Accept Changes]** to set as default.

- High Density Point Exclusion, when enabled, will automatically exclude data points with a density  $>3.75 \text{ g/cm}^2$  for analysis.
- When High Density Point Exclusion is enabled, the abbreviation “MD” (metal detect) will be printed under the image of the Detailed Results Page 1 printout.



**Norland strongly recommends operating the system with High Density Point Exclusion disabled.**



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## Quick Reference Instructions

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The Lateral Spine scan process consists of a brief Scout scan over the lumbar area, a Measurement scan, calculation of numeric results, and saving of data.

- Click on Scan New/Existing Patient.
- Select scan type.
- Enter/Update Patient information.
- Screen patient for contraindications.
- Place the Back block and AP Leg rest block on scanner.
- Position the patient on left side, with back against the Back block. Position the Leg Rest block so that patient's legs form 135° angle. Support the ribs with the Rib Cage Support and place the Head Roll under the patient's head. Place the Limb blocks between the arms and legs. Position the scanner arm over the patient's rib cage.



### **CAUTION the patient not to stare into the beam.**

- Turn the laser on and position the laser dot 2cm above the bottom of the rib cage, 7-10 cm anterior of the patient's back at and press the MARK button on Scanner Control Panel to identify start point.
- Position the laser dot 2cm below the iliac crests and press the MARK button on Scanner Control Panel to identify the end point.
- Position the laser dot over the abdominal area, 5 cm anterior to the spine and press the MARK button.
- At the Scan Review screen, click on **[Start Scan]**.
- When the Scout scan is finished, use the cursors to encompass L3 (single vertebra) or L2-L3 (L3-L4, multiple vertebrae). Position centerline to touch anterior edge of vertebra(e).
- Click on **[Measure Scan]** and allow the Measurement scan to complete.
- While system performs analysis, assist patient up from the table.
- When the initial analysis is complete, place upper left control point inside the vertebral notch, above and to the left of the top vertebra. Place bottom left control point inside notch, below and to the left of the bottom vertebra. Click on **[Continue]**.
- Confirm that the cursors encompass vertebral bodies with a minimum of soft tissue and click on Results Page 1.
- Enter comments with "Edit Comments", if desired.
- Click on **[Continue - Print]** to print the Analysis Results Report. The system software automatically saves the scan data file and returns to the Main Menu when the report printing has been initiated.



## General Cautions

**Caution** - Properly MARK the patient. To ensure scanner arm does not contact the patient, always verify patient is positioned properly before scanning or moving the scanner arm.

**Caution** - Do not move the patient while marking the regions to be scanned. Always remain near the patient, in the event assistance is needed.

**Caution** - Do not reach around to the back of the unit while the scanner arm is moving. While guards are provided, it is wise to avoid any chance of pinching the arm, hand, or fingers between the scanner arm and the frame, or between the source and the scanner arm.

**Caution** - Make certain the patient does not dangle their arm or hand over the riser while the scanner arm is moving during a scan. The scan will not be usable, as the patient will not be properly positioned, and the patient may be at risk of pinching their hand or finger between the scanner arm and the riser or between the x-ray source and the scanner arm.

**Caution** - Make certain the patient does not stick a finger into the slot in the bottom of the upper arm cover during a scan; it could be pinched.

**Caution** - When positioning the patient, ensure they start by sitting near the center of the table and then swing their legs up. Sitting at either end makes positioning awkward.

**Caution** - Do not remove the screws holding the table top during normal use. If the screws are not in place, the table top may tip up if the patient sits on either end. If the screws were not replaced (i.e. after service) and the table top slid forward several inches, it may tip.

**Caution** - Caution the patient to remain still during the scan to ensure quality results.

**Caution** - Help the patient up from the scanner after scan data collection; some patients may require a few minutes to regain equilibrium after lying down for a length of time.

## Performing Lateral Spine Scan

The patient will be lying on his/her left side, with the back firmly against the Back Block. Light-weight or cotton clothing is acceptable but jewelry, zippers, buttons, back braces, belts, or any metal or high density plastic will affect bone mineral estimations. An examination gown or robe may be more suitable.



### Scanner Preparation (New Patient)

1. Click on the **Scan New Patient** shortcut from the Main Menu. The PATIENT PERSONAL DATA screen will display.

2. Enter personal information and click on **[Continue]**. The “Name” and “ID” entries are mandatory for scanning.
  - Name should be (last name), (first name).
  - ID Number must be unique to be accepted. If the entered number is already in use, a message will display, indicating that number is already in use.  
For example: (SSN or Clinic/Hospital ID)
  - Enter only the patient’s self-reported ethnic background.
  - Pressing **[Enter]** or **[Tab]** will move cursor through fields.
3. At the SCAN TYPE screen, click on Lateral Spine and click on **[Continue]**.

4. Enter the patient's vital statistics and click on **[Continue]**.

Height:

Weight:

Technician:

Physician:

**[Continue]** **[Main Menu]**

- Use consistent units of measurement for the height and weight fields.
  - This information will be updated for each successive scan of the patient and will not affect scan results.
  - Pressing **[Enter]** or **[Tab]** will move cursor through fields.
5. Proceed to Patient Positioning to prepare the patient for scanning.

### Scanner Preparation (Existing Patient)

1. Click on the **Scan Existing Patient** shortcut from the Main Menu. The patient list will display.

FIGURE 2

NAME	ID
Doe, Jane	12347
Doe, Janet	12346
Doe, Janine	12348
Doe, Janna	12349

**[None]** **[PgUp]** **[+]**

**[End]** **[PgDn]** **[+]**

**[Search by Name]**

**[Search by ID]**

**[Continue]** **[Cancel]**

- Click on Page Up or Page Down to display the next group or use the arrow buttons to scroll.

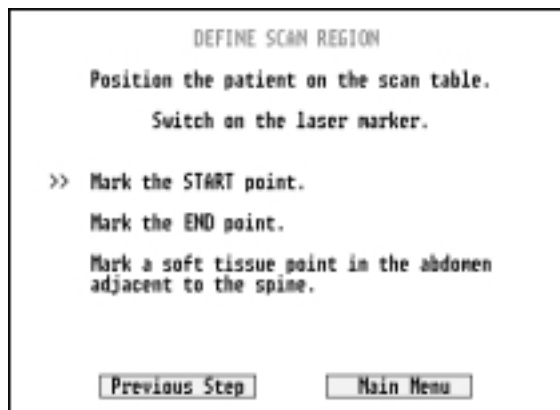
- A search may be done by patient ID number or name. Enter appropriate information and click on **[Continue]**; partial information can be used. For example, entering “D” when searching by name will show scan list and highlight first name that starts with “D”, allowing user to fine tune search for patient’s name.

FIGURE 3

2. Click on patient name and click on **[Continue]**. (Or double-click on patient name.)
3. At the SCAN TYPE screen, click on appropriate scan type and click on **[Continue]**.
  - Avoid scanning areas of previous surgical procedure or implants for routine Bone Density studies.
4. Update the patient’s vital statistics and click on **[Continue]**.
  - Use consistent units of measurement for the height and weight fields.
  - This information will be updated for each successive scan of the patient and will not affect scan results.
  - Pressing **[Enter]** or **[Tab]** will move cursor through fields.
5. The DEFINE SCAN REGION should be displayed on the screen. (See Figure 4)

Proceed to Patient Positioning to prepare the patient for scanning.

FIGURE 4

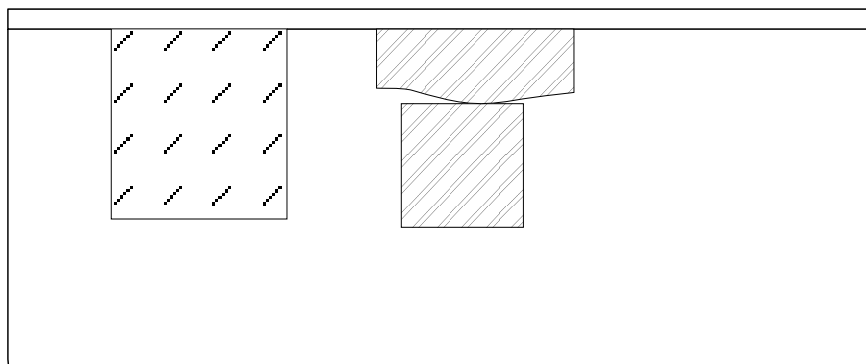


## Patient Positioning

Ensure that the patient removes all items from pockets and that clothing is free of metal (i.e. rivets, buttons, zippers, belts) or anything else that might be of a high density. It might be necessary to have the patient change to an examination gown or robe. Shoes should also be removed.

- The Lateral Spine scan requires the use of several positioning aids: the Back Rest block, the Rib Cage Support block, Two Lateral Limb Support Blocks, a Head Roll, and the AP Spine Leg Rest block. Have these positioning aids readily available when positioning the patient for the Lateral Spine scan.
1. Place the Back Rest block against the back of the scanner in the approximate center of the table.
  2. Place the AP Spine Leg Rest block to the left of the Back Rest block and against the back of the scanner.
  3. Place the Rib Cage Support block adjacent to the Back Rest block.

FIGURE 5



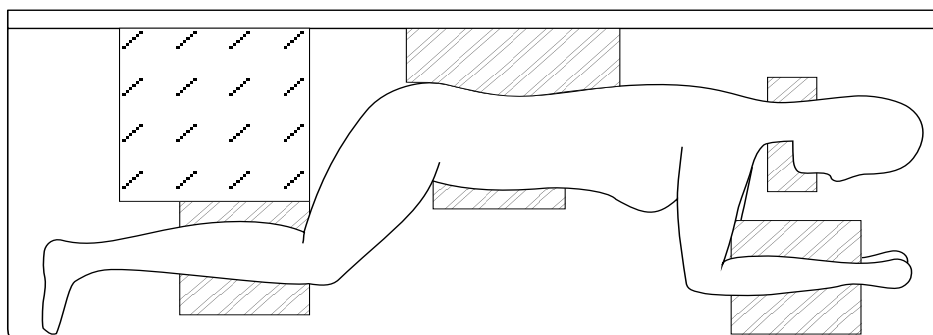
4. Use the Scanner Control Panel to move the scanner arm to the foot of the scanner (to the left when facing the table).
5. Have the patient lie on his/her left side facing away from the scanner. The patient's back should be firmly against the Back Rest block. Place the Head Roll under the patient's neck.
  - The ribs should be supported by the Rib Cage Support block, but not elevated.
  - The knees are drawn up to form a 135° angle, using the Leg Rest block. The hips should be in a vertical line.



**Make sure that the patient does not sag or droop forward.**

6. Place a Lateral Limb Support block on top of the left leg, just below the knee. Rest the other leg on top of the Limb Support block.
7. Repeat the process for the arms, positioning the shoulders in a vertical plane and the arms at 90°.

FIGURE 6



- Make the patient as comfortable as possible since movement during the scan will affect the results. The use of a sheet or light blanket will not interfere with scan results. Use of a pillow or the Head Roll under the head is recommended.

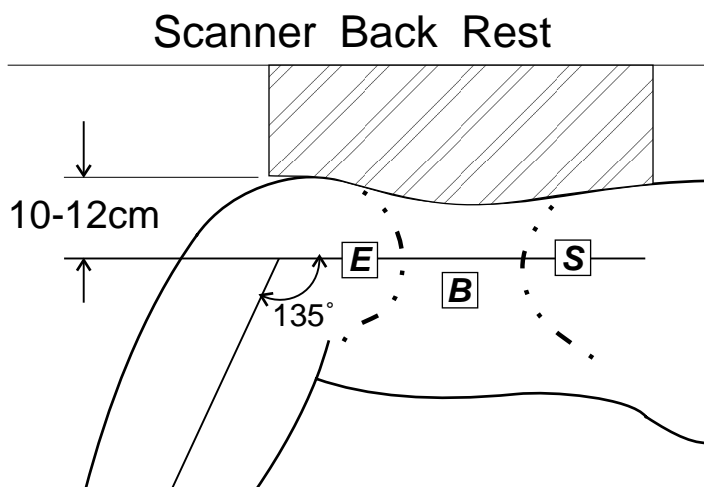
The patient is now ready for scanning. Proceed to Scan Procedure.

## Scan Procedure

The typical Lateral Spine Scout scan region is from mid-L1 to the iliac crest, extending approximately 7 cm posterior to the anterior edge of the vertebral bodies and 7 cm into the abdomen (shown in Figure 7 below).

All of L2-L4 is included when the scan start point (marked **S** in the drawing) is 15 cm above the iliac crest and scan end point (marked **E** in the drawing) is 2 cm below the iliac crest. The soft tissue Baseline point (**B**) is anterior to the spine, not over bone.

FIGURE 7



1. Imagine a line 10-12 cm in front of the Back Rest block and parallel to the scanner back rest. Ensure that the laser is off and position the scanner arm over the patient's midsection along this axis.
2. Turn on the laser.



**CAUTION the patient not to stare into the beam.**

3. Position the scanner arm so that the laser dot is approximately 2 cm above the lowest point of the rib cage.
4. Press the MARK button on the Scanner Control Panel. This action tells the computer the start point for the Scout scan.

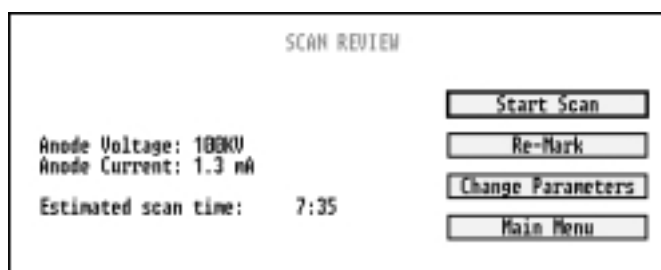


The laser will turn off briefly as the computer emits a beep, indicating that the MARK point was acknowledged by the software.

5. The DEFINE SCAN REGION screen will request that the end scan point be identified. Position the laser dot about 2 cm below the iliac crest and press the MARK on the Scanner Control Panel.
6. The DEFINE SCAN REGION screen will request that the baseline point be identified. Position the laser dot to a point in the abdominal region, about 5 cm anterior (forward) from the spine and press the MARK button.

Once the start, end, and baseline points have been marked, the SCAN REVIEW screen will be displayed.

FIGURE 8



The estimated scan time is the combined time for the Scout and Measurement scans. The operator can:

- Click on **[Re-Mark]** to re-mark the start, end, and baseline points.
  - Click on **[Change Parameters]** to edit any of the scan parameters, such as scan speed or number of multiple scans of same subject (**multiple scans for scanning phantoms only**). Norland recommends a Scout scan width of 14 cm and a Measurement scan width of 8 cm for women and 9 cm for men.
  - Click on **[Main Menu]** to cancel the scan and return to the Main Menu.
7. Click on **[Start Scan]** to begin the scan. The system software will:
    - Turn off the laser.
    - Select the appropriate filter combinations as determined by the patient thickness.
    - Measure detector counts with no X-rays for background reference.
    - Apply voltage to X-ray source and start the Scout scan.

X-rays will energize and data collection will start as the scanner arm moves down the patient for the prescribed length of scout scan. Background detector count will be subtracted from the scan counts to provide a true representation of the amount of X-ray absorption. The Current Scan Progress screen will generate the image based on detector output even as the scan data is being collected. An estimate of the remaining scan time will also be displayed.



8. Close observation of the screen image will allow detection of patient movement. The scan should be terminated immediately if patient moves during scan. Patient movement will adversely affect the accuracy of the scan.



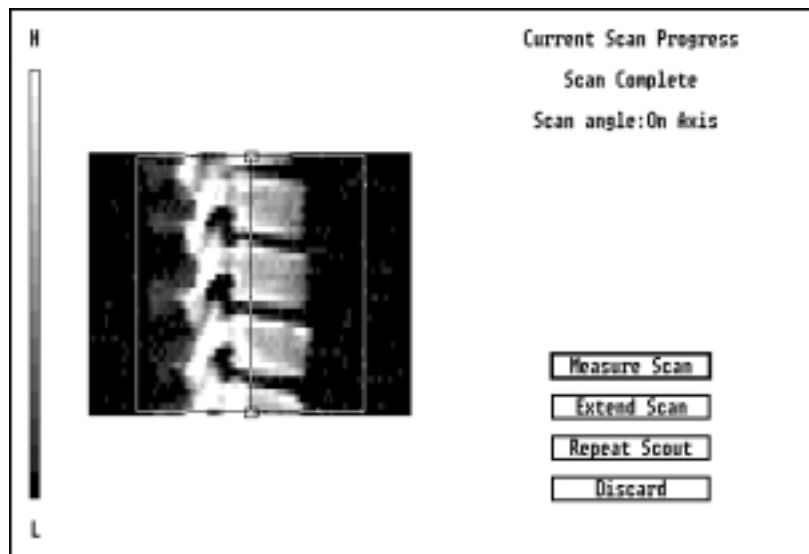
- Clicking on **[Stop Scan]** will pause the scan after the current scan line is completed. A warning message indicating that there aren't enough scan lines to analyze may be displayed. The scan can be resumed or terminated at this point.
- In an emergency situation, press the **HALT** button on the Scanner Control Panel to terminate the exposure immediately. The system power will have to be recycled to resume scanning after pressing the HALT button. Leave the computer powered on to retain the current study.



**WARNING: If computer power is recycled in this instance, the scanner arm will return to origin position. ENSURE THAT PATIENT IS NOT IN SCANNER ARM PATH!**

When the Scout scan has completed, the Current Scan Progress screen will be updated to indicate that Scout scan is complete and an audible beep will sound.

FIGURE 9

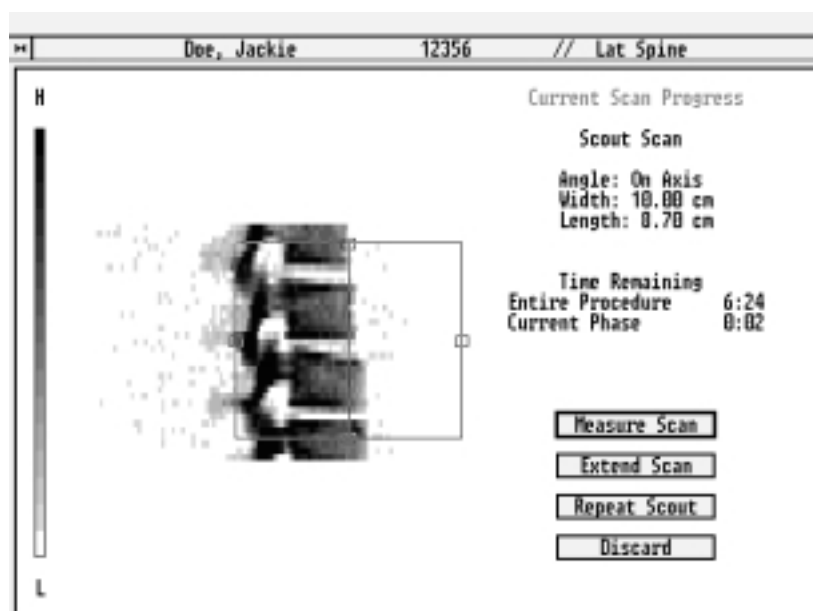


If Scout image quality is satisfactory, proceed to step 9 to prescribe the Measurement scan. If not, go to Scout Scan Progress Screen Options on page 6-26 for options.

- The lumbar spine segment must be straight before the Measurement scan is performed if Snap Measurement Scan on Axis is enabled (see Scanning Setup on page -5).
9. Using the Click and Drag method, position the top and bottom of the cursor box to define the area to be measured. The operator can identify three areas for measurement. L3, L2-L3, or L3-L4.

L3	Position the cursor to include the bottom third of L2 and the top surface of L4. Position the centerline of the cursor box to just touch the anterior edge of L3.
L2-L3 or L3-L4	Position the cursor box to include portions of the adjoining vertebra above and below the two vertebrae being measured. Position the centerline of the cursor box to just touch the anterior edge of the vertebrae.

FIGURE 10



10. Click on **[Measure Scan]** to start the Measurement scan after cursor is placed correctly. The software will:
- Select the appropriate filter combinations as determined by the patient thickness.
  - Measure detector counts with no x-rays for background reference.

- Open the beam shutter and start the Measurement scan.

X-rays will energize and data collection will start as the scanner arm moves down the patient for the prescribed measurement scan. Background detector count will be subtracted from the scan counts to provide a true representation of the amount of x-ray absorption.

The Current Scan Progress screen will display the image as it develops, show how many lines will be scanned and give an estimate of the remaining Measurement scan time.



**NOTE: Always allow the Measurement scan to complete without interruption. This will ensure that the region of interest is the same from scan to scan and will ensure the best precision.**

11. Monitor the image closely for any indication of patient movement. The scan should be terminated immediately if patient moves during scan. Patient movement will adversely affect the quality of the scan.



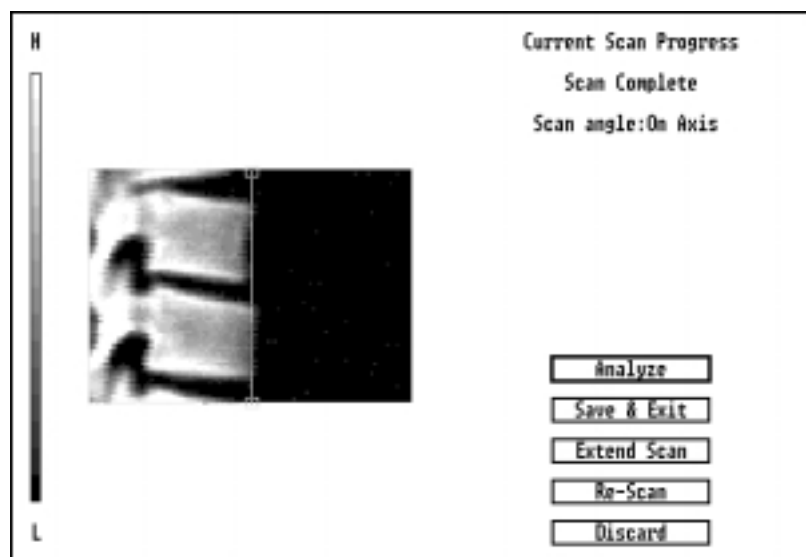
- Clicking on **[Stop Scan]** will pause the scan after the current scan line is completed. A warning message indicating that there aren't enough scan lines to analyze may be displayed. The scan can be resumed or terminated at this point.
- In an emergency situation, press the **HALT** button on the Scanner Control Panel to terminate the exposure immediately. The system power will have to be recycled to resume scanning after pressing the HALT button. Leave the computer powered on to retain the current study.



**WARNING: If computer power is recycled in this instance, the scanner arm will return to origin position. ENSURE THAT PATIENT IS NOT IN SCANNER ARM PATH!**

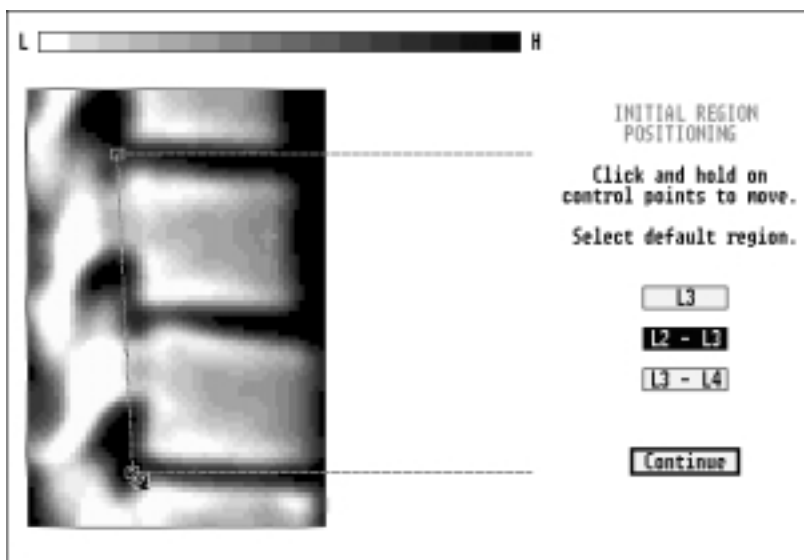
An audible beep will sound to indicate that the scan is complete. System software will also update the Current Scan Progress screen with the "Scan Complete" message. (See Figure 11)

FIGURE 11



12. Review the image. If image is satisfactory and no evidence of patient movement during the scan is exhibited, click on **Analyze**.
  - The **Save & Exit** option will save the data to the default storage for analysis at a later time.
  - The **Extend Scan** option allows extension of the measurement scan by adding a user-defined number of scan lines to the current scan.
  - The **Discard** option will, after confirmation by the operator, discard collected data and return to the Main Menu.
13. Help the patient up from the scanner table if no further scans are to be performed. Make sure scanner arm will not impede patient's ability to sit up. Remember that patient may require a few minutes to regain equilibrium after lying down for a length of time.
14. At the INITIAL REGION POSITIONING screen, click on the area to be analyzed that matches the scanned area. (See Figure 12)

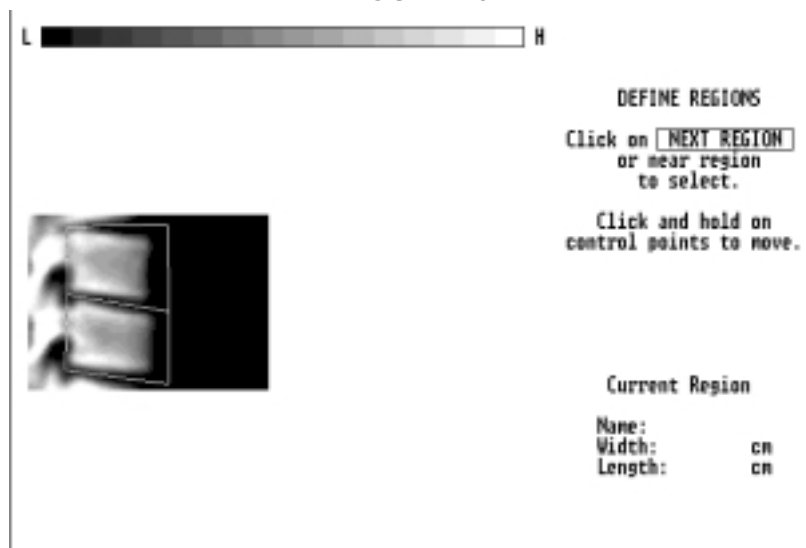
FIGURE 12



15. Using click and drag method, position the upper left control point inside the vertebral notch to a point just superior (above) and posterior (behind) to the upper vertebra to be analyzed.
16. Position the lower left control point inside the vertebral notch, anterior (below) and posterior (behind) the lower vertebra to be analyzed. Figure 12 shows the proper position for L2-L3.
17. Once cursors are positioned, click on **[Continue]**.

The system software will automatically find the intervertebral spaces and construct a cursor box that will contain each vertebra being analyzed with a minimum of soft tissue.

FIGURE 13



18. Click on **[NEXT REGION]** to adjust cursors if needed.

- Use the Show Comparison feature to aid in positioning cursors in the same place as the patient's initial scan.



**Norland strongly recommends using the computer-generated analysis unless the regions of interest are blatantly incorrect.**

19. Once all regions are properly positioned, select Analysis Menu item **Results** to view result values.

## Results

- The BMD and BMC for each area are displayed. Results Page 2 also shows the Area (Figure 15).
- Scan information is displayed at the bottom of Results Page 2.
- If the patient has been scanned before, % **Short Term** & % **Long Term** will be displayed.

%SHORT TERM CHANGE	Ratio of change between current scan and most recent previous scan.
%LONG TERM CHANGE	Ratio of change between current scan and patient's initial scan.
%/YR. value	Indicates the percent of change calculated per year

1. Click on [**Continue-Print**] to print report as determined by Print Setup.
  - Analysis results will be saved to the default storage location as a scan data file under patient's name and Main Menu will be displayed.
  - Click on [**Main Menu**] to save scan data and exit to Main Menu without printing report.
  - Selecting **Print - Print Report** at the Analysis Menu will allow customization of Printer Setup for the current scan.



FIGURE 14

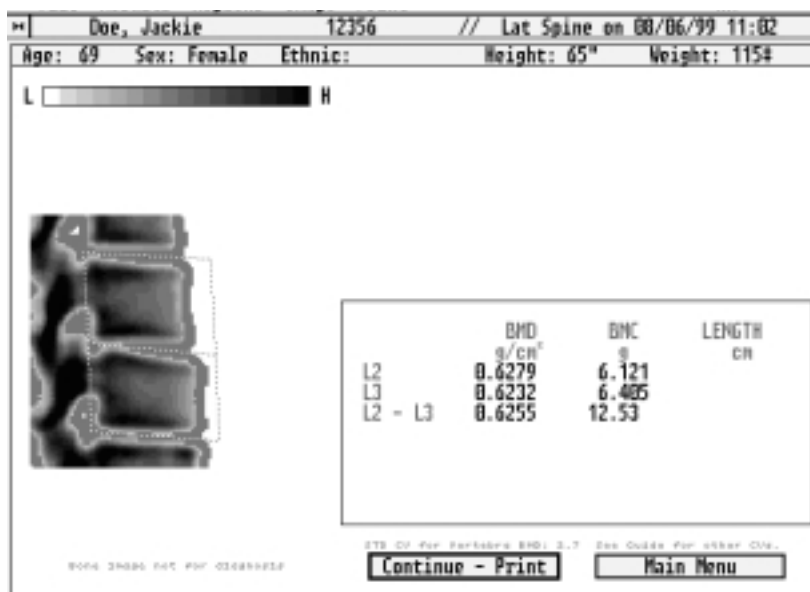
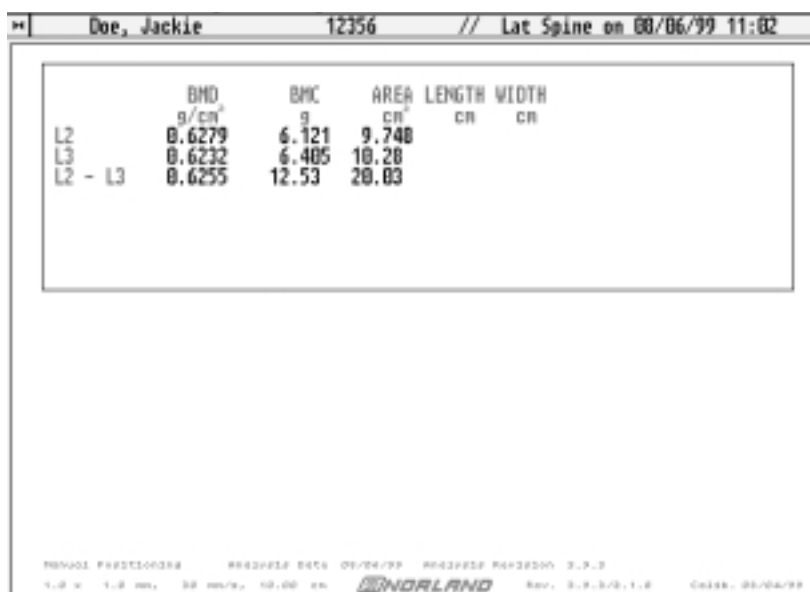


FIGURE 15



## Reanalyzing Scan Data

The Host software allows an operator to reanalyze a scan using the Reanalyze command. This command starts the analysis process over from the beginning, retaining any operator-defined special regions.

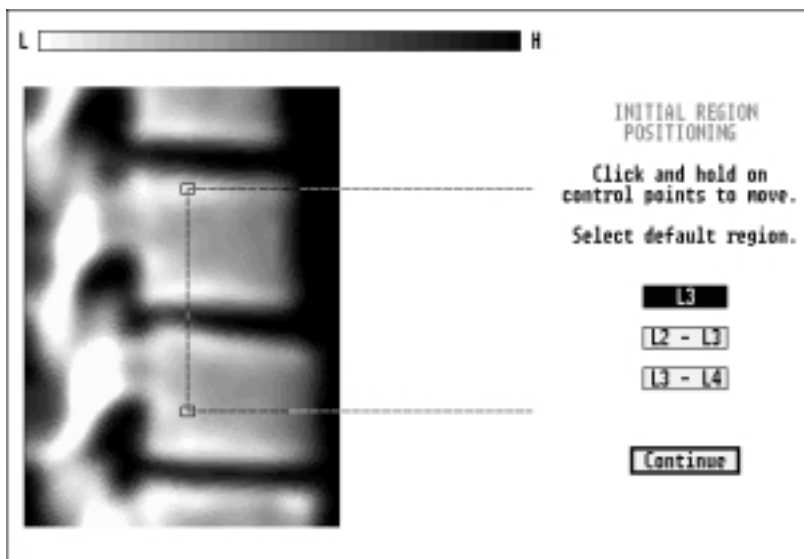
- After the scan data is collected, the measurement region of interest cannot be changed using **Reanalyze**.
- The Reanalyze command may also be used to reanalyze old scans with a new version of system software, or to recover all regions, in one operation, which may have been excluded with the Include/Exclude function.



If a series of scans are to be reanalyzed, it is important to reanalyze the patient's initial scan first. This will establish new baseline areas and values to which subsequent scans may be compared.

1. Select the scan data file to be reanalyzed from *Main Menu* item **Select**.
2. Select **Modify Regions** from the *Main Menu* (Analysis) or *Analysis Menu* (Regions).
3. Click on **Reanalyze**. The INITIAL CURSOR POSITIONING screen will display.

FIGURE 16



4. Position cursors as in normal analysis.
  - Analysis Options can be changed prior to Reanalyze.

System software reprocesses the data to complete the reanalysis, retaining operator-defined special regions.

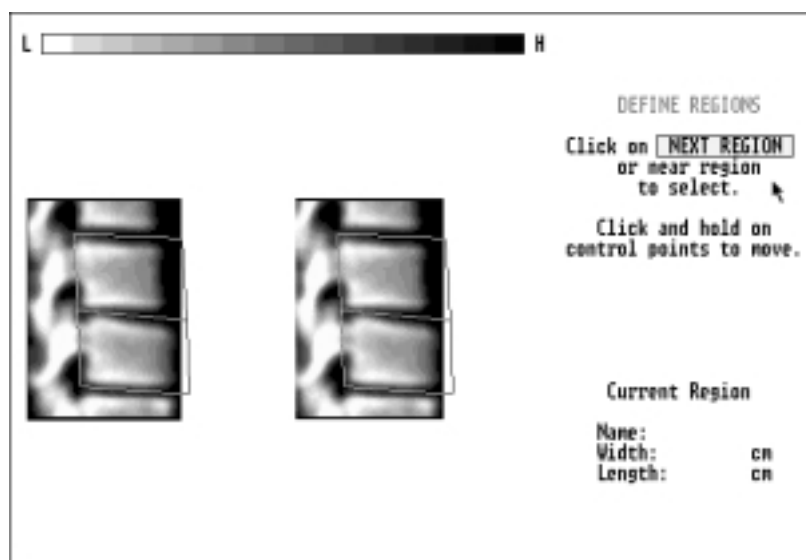
## Comparison Image

Modifying cursor placement to match previous scans of the patient can be performed using a comparison image of the patient's initial scan.

1. At the REVIEW REGIONS screen, select *Analysis Menu* item **Image** and click on **Show Comparison**.

The patient's first scan image is recalled and presented to the right of the current scan using the same linear scale as the existing image.

FIGURE 17



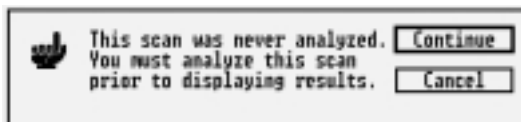
2. Click on **[NEXT REGION]** to activate cursor control points and position cursors to match the initial scan image.
3. Once positioned, selecting **Results** from the *Analysis Menu* will recalculate the data with the new cursor positions. It is not necessary to Hide Comparison before displaying the results or saving the data.

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## Analyzing Saved Scan Data

The Host software allows an operator to perform a scan on a patient, save the data, and then analyze the saved scan data later.

1. Select *Main Menu* item **Select** and click on **Select a Patient**. Double-click on desired patient from list.  
A listing of the patient's scans is displayed. A check mark in the right column indicates that the scan has been analyzed.
2. Double click on the scan to be analyzed. The following message will be displayed; click on **[Continue]** to proceed.



3. Position cursors as described in the normal scan procedure.
4. Once cursors are in position, select *Analysis Menu* item **Results** and then click on Results Page 1.
  - If patient has been scanned previously, modify cursors to match Comparison Image.