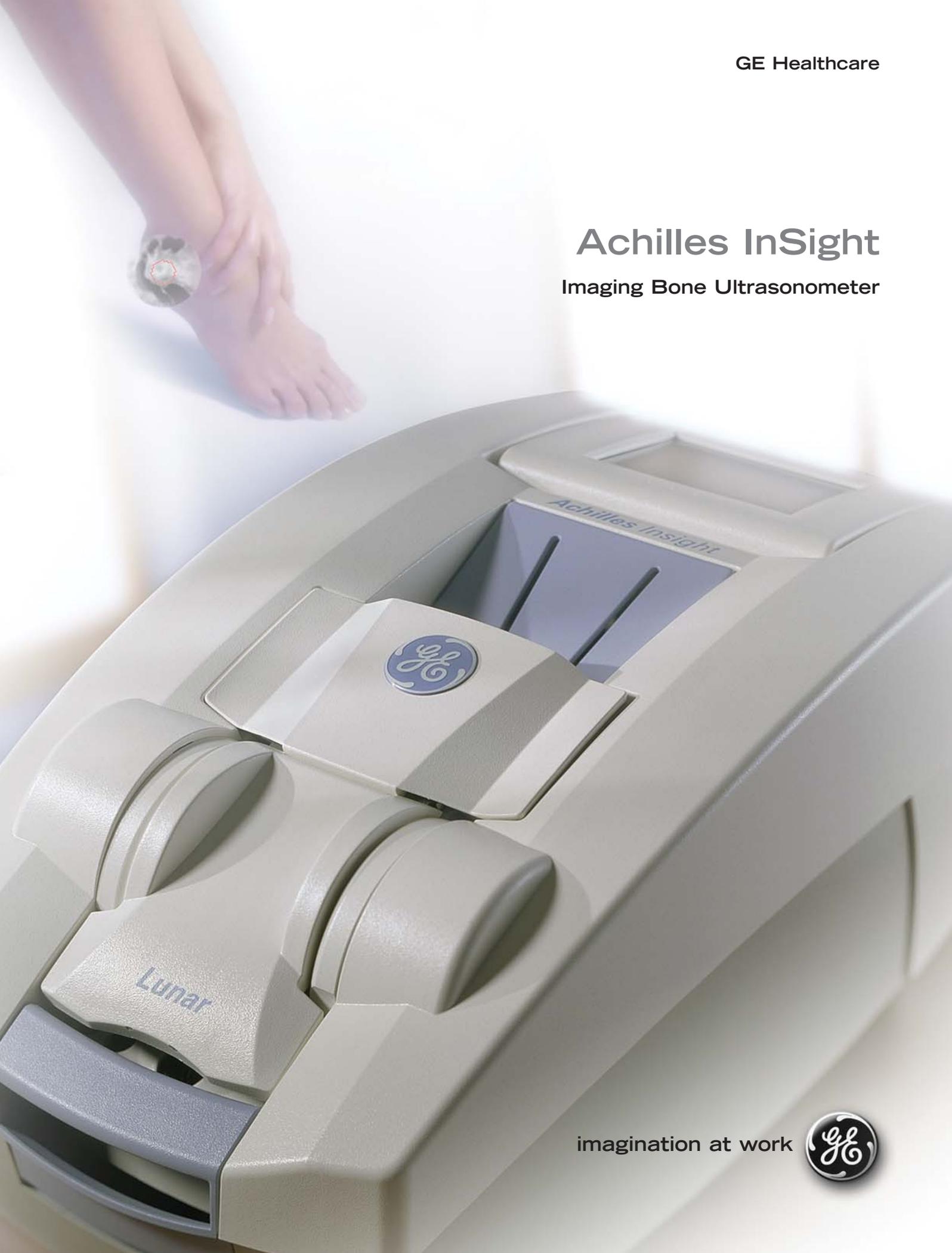


GE Healthcare

# Achilles InSight

Imaging Bone Ultrasonometer



imagination at work





# Osteoporosis: See it. Treat it.

Osteoporosis is no longer considered an inevitable consequence of aging. Early detection and increasingly effective treatments can help your patients avoid the trauma of osteoporotic fracture.

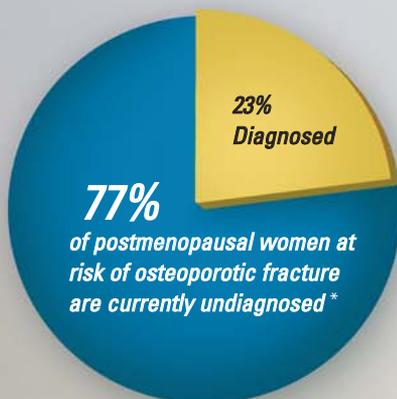
Awareness of osteoporosis has never been higher – yet 77 percent of postmenopausal women at risk remain undiagnosed.\*

Now, you can assess patients' fracture risk in your office with greater ease and more confidence than ever.

## **Real-time imaging – a breakthrough in measurement confidence.**

The Achilles InSight is the first bone ultrasonometer with real-time imaging. Existing ultrasonometer technology demands a "blind" measurement, with no anatomic reference to guide the test despite obvious differences in heel anatomy across patients. Achilles InSight improves measurement confidence by providing a preview image\*\* of the heel measurement site, a major step forward for in-office osteoporosis assessment.

Achilles InSight is a valuable addition to your practice and a powerful tool for giving your patients complete, high-quality care.



\* US Department of Commerce.

\*\* For non-diagnostic use only.

# Achilles InSight

## Seeing is Believing

### Protect your patients' health

Technology brings bone density testing into the realm of the everyday office practice. Numerous clinical studies show that ultrasonometry of the heel using Achilles is an economical, reliable alternative to DXA for fracture risk assessment.\*

Achilles InSight lets you offer osteoporosis testing to your patients as part of regular health assessment. Testing is simple and fast. You get immediate results enabling you to counsel patients and make sound treatment decisions. And you can monitor treatment compliance.\*

### Use it in your office Or take it to your patients

Achilles InSight fits in less than two square feet of office space. It's also easy to take on the road – to satellite offices, nursing homes or outreach programs. It's portability makes it ideal to use as an adjunct screening tool for identifying patients for BMD table scans. The complete system weighs just 22 lbs, and the ergonomic design makes it easy to carry. Just slip it into the front seat or trunk of your car and you're ready to travel.

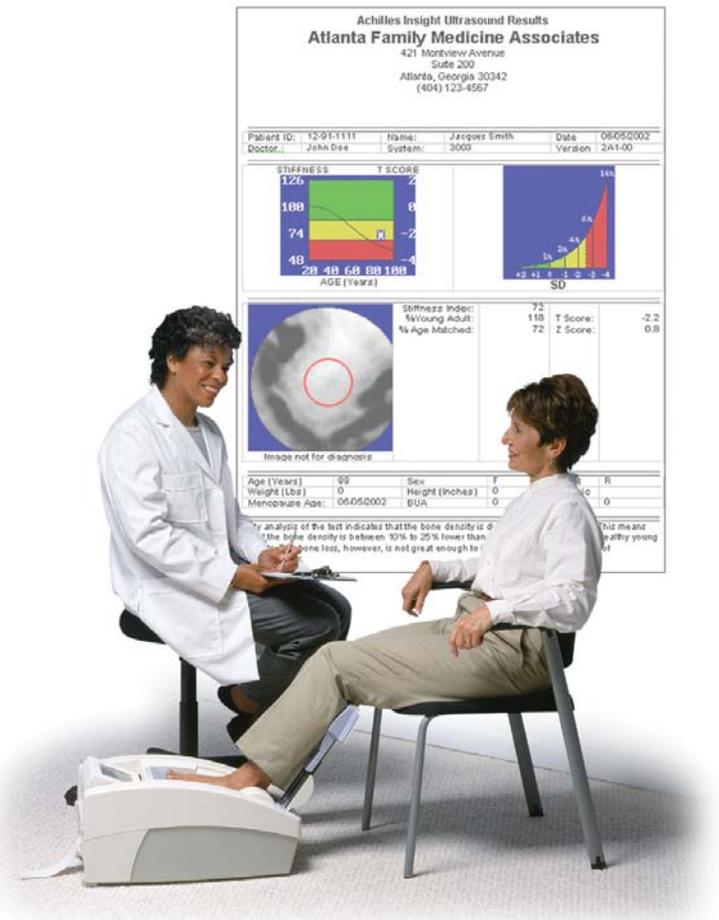
### Complete exams with confidence, in one minute or less

The Achilles InSight can enhance confidence with real-time ultrasound imaging. Instead of a "blind" measurement, the Achilles InSight instantly provides a clear ultrasound image\*\* of the os calcis. It's your assurance that every patient's measurement is in the correct position for an accurate and precise test result.

One touch of the color-display screen starts the exam. Instantly updated images from Achilles InSight's solid-state 2-D array transducer provides feedback that the measurement is on-track. The on-board printer then generates concise patient results.

\* First bone ultrasonometer approved by FDA for the indication of osteoporotic fracture risk.

\*\* For non-diagnostic use only.



### ***Os Calcis: A preferred site for fracture risk assessment.***

*Evidence supports the value of densitometry at the heel as the optimum peripheral site for fracture risk assessment.*

- Easy accessibility
- Metabolically active bone
- High trabecular content (90% cancellous)
- Weight bearing – like the spine & femur
- Allows early detection and intervention
- Proven predictive of hip fracture risk.

## Smarter

- Real-time imaging – no more “blind” positioning
- WHO classification – plus Relative Fracture risk

NEW

- Adjustable ROI (Region of Interest) to ensure optimal positioning and increase confidence in measurement

## Faster

- Gel-free – no gel, no oil, no clean up
- 15-second measurement – 2x faster

## Better

- 75% better precision than gel-based measurement
- Multiple languages & references
- Color report printer (*option*)
- Windows XP software (*option*)
- FDA approved for indication of fracture risk, aid to diagnosis and monitoring of bone changes

NEW

- Customizable PC-based Osteo Report® (*option*)

NEW

- Dexter QUS™ pocket PC software (*option*)



# Achilles InSight

## Different People, Same Test Quality

Achilles InSight gives you reliable results – for patients who need testing, no matter who performs the test. That's because its design removes major sources of test variation. With less than 30 minutes training, existing staff can produce consistent, high-quality results.

### Imaging for consistent measurement position

Test consistency starts with the ultrasound imaging system. The on-screen display lets the operator confirm the approximate location of where the ultrasound beam will enter the heel during measurement.

You never scan "blind." Real-time imaging of the os calcis allows you to correctly position the measurement– every time. Adjustable ROI (Region of Interest) feature allows positioning flexibility for more accurate measurements on a broader range of patients.





# SmartDry Technology

## A Productivity and Precision Advantage

Thermally-controlled water is the gold-standard medium for ultrasound studies due to its inherent consistency and precision. However, water-based systems lack the convenience of so-called "dry" measurements, which require gel.

With SmartDry-Technology you don't have to sacrifice precision or convenience. SmartDry keeps the foot dry by using water encapsulated in membranes that conform closely to the patient's foot, providing large-area imaging

through a temperature-controlled, fluid medium. SmartDry's "closed-water system" requires virtually no maintenance, and application and clean-up are easy since only isopropyl alcohol is used.

**Repeat Measurement Precision (%CV),  
Alcohol Vs. Gel**

	<b>ALCOHOL</b>	<b>GEL</b>
<b>variable</b>	<b>CV</b>	<b>CV</b>
<i>Stiffness</i>	1.95%	2.55%
<i>SOS</i>	0.25%	0.33%
<i>BUA</i>	1.44%	2.94%

## Achilles InSight Clinical Results

Achilles technology gives you clinical information you can trust. It is the only bone ultrasonometer whose FDA cleared indications for use allow comprehensive skeletal assessments (in conjunction with other risk factors), WHO diagnostic classification, and the monitoring of bone changes.

### **Assess fracture risk – for at-risk ages**

Large prospective studies show Achilles InSight as effective as DXA of the femur in predicting hip fracture risk. It is the first ultrasonometer proven in prospective studies to predict fracture risk in post-menopausal women, ages 45 to 75+ years.

### **Use standard WHO Diagnostic Classification**

Achilles InSight results provide T-scores that correspond to diagnostic criteria defined by

the World Health Organization (WHO). Unlike other peripheral measurements, Achilles InSight results demonstrate a similar response to aging as found at the hip and spine – with an average decline of 30% by age 70. Other measurements, such as at the finger or forearm, demonstrate delayed, lower sensitivity to aging.

### **Monitor treatment compliance – with confidence**

Achilles InSight has been proven to have precision suitable for monitoring bone changes through aging or response to therapy. Its standardized precision has been shown to be two to three times better than for other ultrasonometers in head to head trials.

\* For non-diagnostic use only.

# Achilles InSight

## Designed to Suit Your Needs

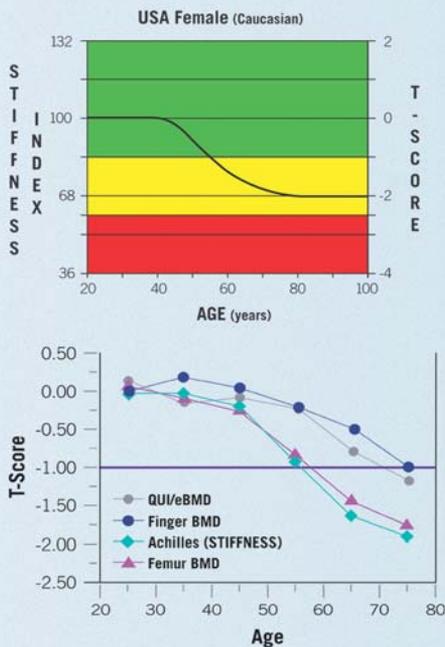
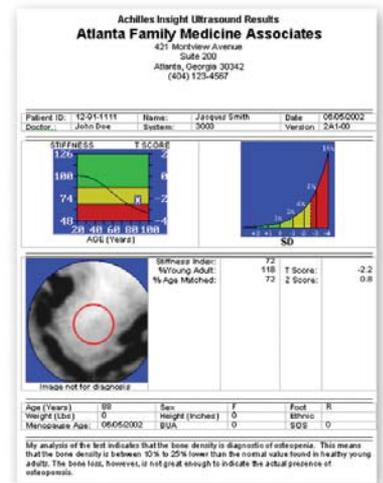
Achilles InSight is built to fit seamlessly into your practice. The standard system is an automated and self-contained unit with internal microprocessor and printer. The on-board memory can store up to 100 patient results, which you can review or print at your convenience. Printouts are easily attached to permanent patient records.

### Add flexibility with Achilles Insight Options.

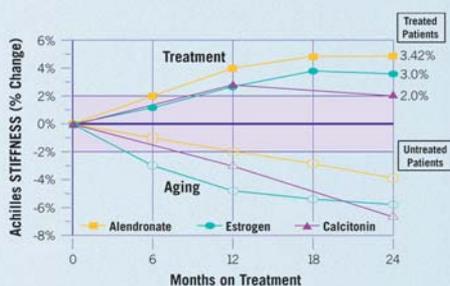
- Insight External Printer
  - Provides full-size, color printing of patient measurement results: exam information, heel image, WHO graph and fracture risk graph.

- InSight OsteoReport® Software for PC
  - Patient Database for storage and retrieval of patient biographic and exam information including historical measurement results with heel image, color graphs and clinical report. Create a standard report or customize the report. Includes a letter to the patient and general measurement information.

- Dexter QUS Pocket PC Software
  - Wireless handheld operation for patient measurement, review and reporting. The same clear concise graphics contained in the on-board report. Plus it includes an IOF survey tool for assessing osteoporosis risk.



Manufacturer supplied data



Giorgino et al, Dept. of Obstetrics and Gynecology, Catholic University, Rome.

### Transport your system easily and safely.

Make transport convenient with an optional, soft-sided, wheeled travel bag. Protect your unit during air travel with a special hard-sided flight case.



# Specifications

## Ultrasonometry Imaging Transducer

Transmission: 95 mm distance  
588 element solid-state matrix array  
Center frequency 500 KHz

## Precision in vivo

<2.0% CV in osteoporotic patients

## Patient Throughput

15-second measurement (*alcohol*)  
30-second measurement (*gel*)

## Results

STIFFNESS Index with WHO classification  
T-score and % Young Adult  
Z-score and % Age-Matched  
(*includes WHO reference graph, image of heel, and relative osteoporotic fracture risk graph*)  
Selection of standard BUA/SOS, or repeat measurement mode

## Display

Real-time preview image of heel  
(*not for diagnostic use*)  
Color LCD "touch" screen with graphical display  
5.7 inch (14.5 cm)  
Tilts, and inverts, for optimal viewing  
Movable ROI for optimal positioning

## Physical Factors

Dimensions (WxHxD): 25x31x61cm (10x12x24 in)  
Operating range temperature: 15°-35° C (59°-95° F)  
Weight: 10kg (22 lbs)

**Indications for use:** *The Achilles InSight ultrasonometer measures ultrasound variables of the os calcis to provide a clinical measure called the STIFFNESS INDEX. The STIFFNESS INDEX indicates risk of osteoporotic fracture in postmenopausal women comparable to bone mineral density (BMD) as measured by x-ray absorptiometry at the spine or hip. STIFFNESS INDEX results expressed as T-scores are used to assist physicians in the diagnosis of osteoporosis in the same way as are T-scores obtained by x-ray absorptiometry. Either the STIFFNESS INDEX T-score or x-ray absorptiometry T-score can be utilized by a physician, in conjunction with other clinical risk factors, to provide a comprehensive skeletal assessment. The STIFFNESS INDEX has a precision error in older women comparable to that of x-ray absorptiometry which makes it suitable for monitoring bone changes.*

*Achilles, Achilles InSight, are trademarks of GE Healthcare.*

*\* Image not for diagnostic use.*

## SmartDry™ Coupling System

Fully automated and self-contained  
Heated to 33° C (92° F)  
SmartDry thermally controlled through transmission  
Replaceable silicone membranes  
Ultrasound gel or Isopropyl alcohol, 70% concentration

## Electrical Requirements

100-240 volts, 50/60 Hz, 5 Amps

## Printer

Internal microline thermal printer with graphical print-out

## OPTIONS

### Dexter QUS™ Wireless Hand-held Software

Requires hand-held PC, Windows® 2003 for PocketPC operating system  
Requires Bluetooth™ Wireless data communication (115 Kbps)  
Compatible models: HPCompaq iPAQ™ Models h1940, h1945, h2210, h2215 (*contact GE Healthcare, BMD division, for other hand-held PC models*)

### InSight OsteoReport® PC Software

Requires external PC, Win 2000/XP/NT operating systems  
Database file format is ".mdb"; Microsoft Access compatible

### External Printer

Letter-size or A4 paper; HP Deskjet 940 or equivalent

For details, please contact our local office at 888-795-8627, fax us at 608-826-7102, or write to us at 726 Heartland Trail, Madison, WI, 53717.

## GE Healthcare

Waukesha, Wisconsin  
www.gehealthcare.com

General Electric Company reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your GE Representative for the most current information.

© 2004 General Electric Company  
GE Medical Systems, Lunar, a General Electric company, going to market as GE Healthcare.

SL164E 5/04 Printed in USA

imagination at work

