# Bone and Metabolic Health



# enCORE v18

Powerful New DXA Clinical Applications

gehealthcare.com

# Introducing enCORE v18

**Powerful New Clinical Applications for G** Featuring new DXAVision<sup>™</sup> technology.

DXAVision<sup>™</sup> provides BMD and Body Composition in one easy, unified workflow. The DXAVision<sup>™</sup> scan is designed to improve operator efficiency, resulting in a DXA scan that is up to 40% faster<sup>1</sup> and a better experience for your patients.

Announcing the latest innovation in DXA software, enCORE v18. Making our DXA products even more powerful.



### Powerful New Clinical Applications for Greater Bone and Body Composition Insights

# Smarter Scanning with DXAVision<sup>™</sup>

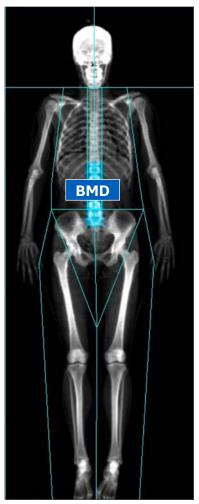
### One Unified Workflow for BMD, AFF, VAT and SAT

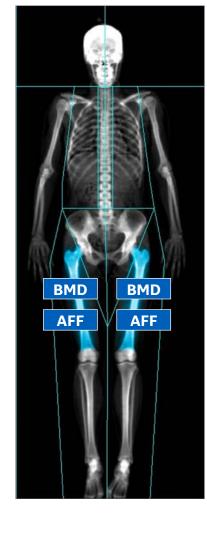
- Body Composition provides comprehensive reporting that includes Subcutaneous Adipose Tissue (SAT) and Visceral Adipose Tissue (VAT) measurements
- One scan sequence captures BMD for AP Spine, Femur and Total Body, plus Body Composition
- Includes estimated Sarcopenia measurement
- Easy-to-use customization of sequencing for skeletal site exams

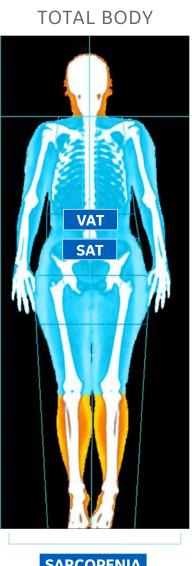
This feature requires CoreScan.

**AP SPINE** 

FEMUR

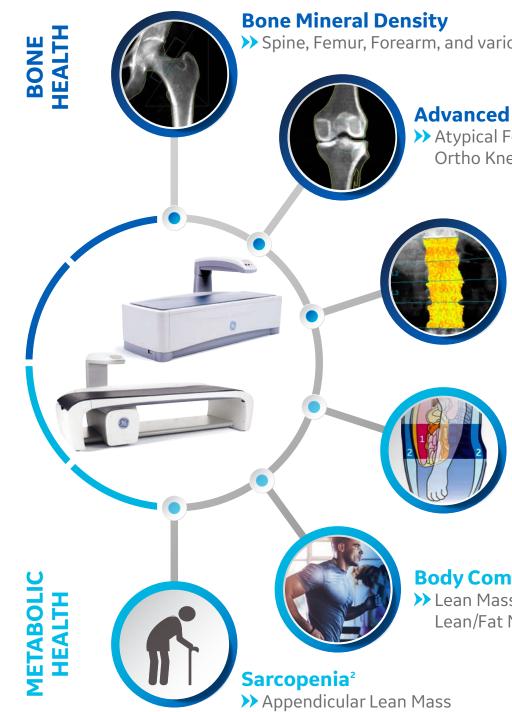






SARCOPENIA **BODY COMPOSITION** 

# Versatility of DXA Technology



SAME PRECISION AND ACCURACY. UP TO 40% FASTER SCAN TIME:

>> Spine, Femur, Forearm, and various skeletal sites

### **Advanced Bone Apps**

>> Atypical Femur Fracture, Ortho Knee, Ortho Hip, Hand, LVA

### **Bone Quality** >> Trabecular Bone Score

### **Metabolic Health**

>> Visceral Fat & Subcutaneous Fat, **Resting Metabolic Rate** 

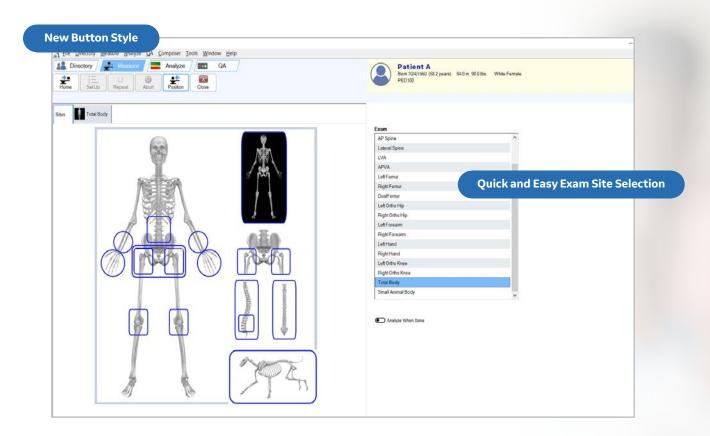
### **Body Composition**

>> Lean Mass, Fat Mass and Lean/Fat Mass Trending

# A New Modern Interface

### Same Efficient User Workflow

enCORE v18's interface offers intuitive navigation, plus quick access to exam site selection options.



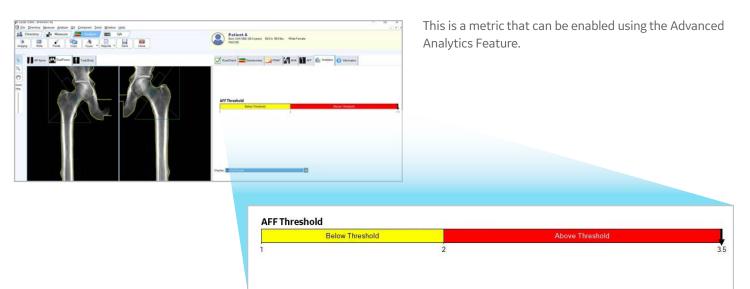
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# New Advancements in Bone Health

### BMD Insights using AFF User Customizable Threshold<sup>3,4</sup>

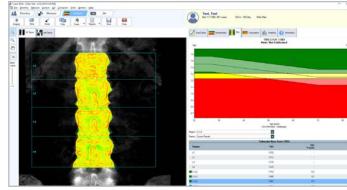
Setting a Custom Threshold for femoral shaft "beaking" allows the user to search for clinical evidence of correlation between "beaking" and the probability of occurrence of an Atypical Femoral Fracture (AFF).





### DXA and TBS Together: Integrated Trabecular Bone Score (TBS)<sup>5</sup>

Improve productivity with an integrated workflow that provides analysis and reporting together for TBS and bone density.

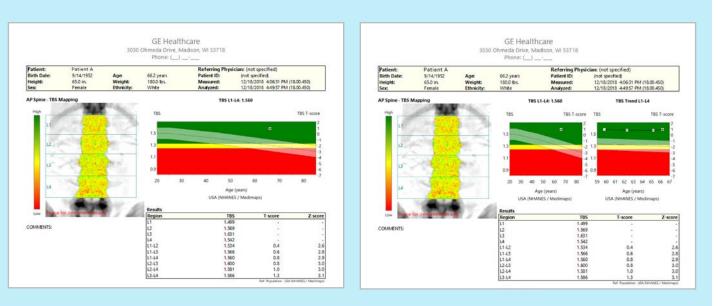


### **TBS Is Now Embedded into** enCORE Software

Simply open an AP Spine exam and select the TBS tab to view results.

## **Built-In Reporting Templates for TBS**

Includes TBS results integrated into bone density reports. TBS field codes can be added to custom reports.



Risk Factors:     None	<ul> <li>— 10-year Probability of Fracture FRAX Adjusted for TBS</li> </ul>	
Alcohol (3 or more units per day)	Major Osteoporotic	
Family Hist. (Parent hip fracture)	Hip	
Glucocorticoids (Chronic)		
History of Fracture (Adult)	FRAX Population:	
Secondary Osteoporosia	USA (Caucasian)	
Rheumatoid Arthritis	Based on femoral neck BMD	
Tobacco User (Current Smoker)	O Left (owest)	
J NOF/ISCD Filters	O Right	
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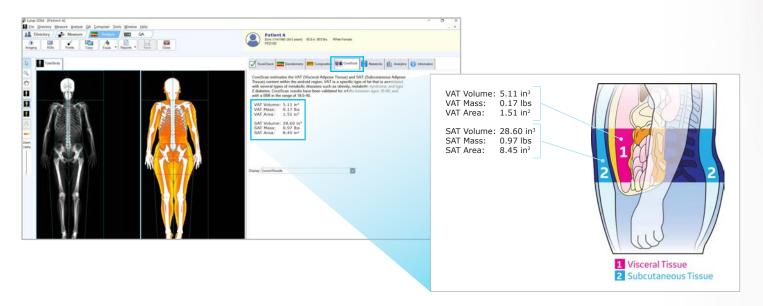
### **FRAX Adjusted TBS**<sup>2</sup>

FRAX values can be optionally adjusted for TBS. Simply select "Adjust for TBS" option to enable.

# New Advancements in Metabolic Health

### Newly Available: VAT Area and SAT Results<sup>2,6</sup>

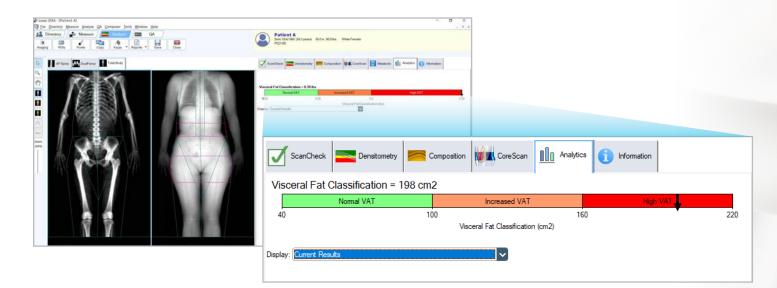
Within CoreScan, view detailed reporting of adipose tissue and gain greater insights into trends of body composition over time. See separate SAT and VAT results, with details including volume, mass and area for each.



### Body Composition Insights using VAT Customizable Thresholds<sup>2,3,6</sup>

VAT user customizable threshold offers the ability to set thresholds for the visceral adipose tissue fat (VAT) measured on a patient or an athlete after a total body scan and help in drawing correlation between VAT and metabolic disorders such as diabetes, cardiovascular diseases, and obesity.

VAT or SAT Customizable Threshold is a metric that can be set up on the Analytics Dashboard through the Advanced Analytics Feature.

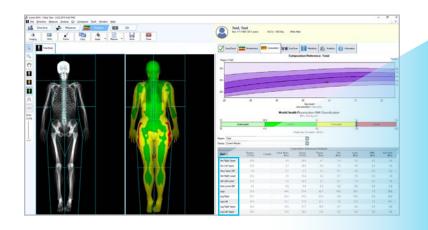


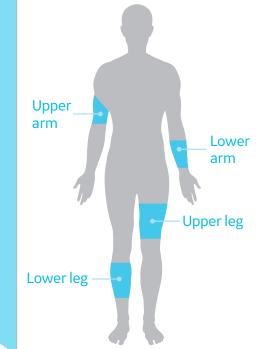


### **Smaller Body Composition Regions of Interest**<sup>7</sup>

Easily monitor and report on regions of interest (ROI) including upper arm, lower arm, upper leg and lower leg. This tool enables the ability to study changes in body composition in these regions.

Suitable for sports medicine professionals and researchers needing to monitor changes in lean mass.







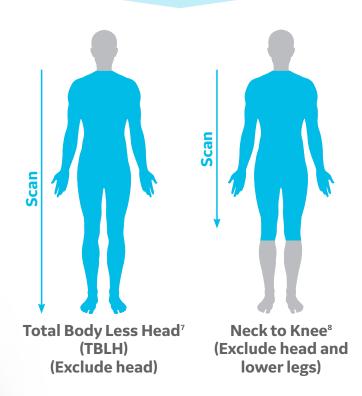
### **Flexible Scanning Options**

Total Body Less Head (TBLH) for Adults<sup>7</sup> is an optional feature that excludes the head, scanning from the neck through the rest of the body. Including the head can mask changes occurring in the rest of the skeleton.

Ideal for assessing athletes and taller patients that may not fit on the scan window.

"Neck-to-Knee" Scan for Adults<sup>®</sup> is an optional feature that performs an even faster scan, that estimates total body composition, starting from just below the chin to the knee caps.

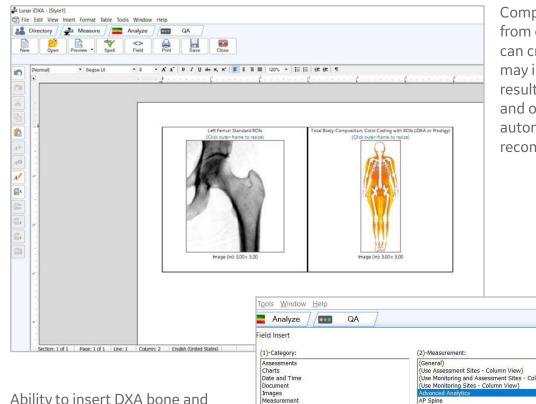
Suitable for athletes as well as patients that may be challenged with the longer scan time of a traditional total body scan.



# Improved Reporting Capabilities

### Improved Composer<sup>™</sup> Reporting

Improved Composer<sup>™</sup> Reporting offers a WYSIWYG (What you see is what you get) interface to easily insert DXA bone & body composition parameters, patient demographic data, DXA images, and external images to easily create rich Composer Reporting stylesheets.



Composer reports are created from default style sheets that you can create and edit. The contents may include images, measured results, charts, trend information, and other information such as automated assessments and recommendations.

# **Advanced Analytics**

## **Remarkable Tools for DXA**

Advanced Analytics is a remarkable tool that provides deep BMD and body composition insights to:

- Sports Medicine Professionals
- Bone and Body Composition Researchers
- Clinicians

This tool allows users to easily create custom equations and metrics. Use Advanced Analytics within your DXA system to:

- Create custom metrics and ratios based on 200+ DXA bone and body composition parameters
- Set user-defined classification thresholds

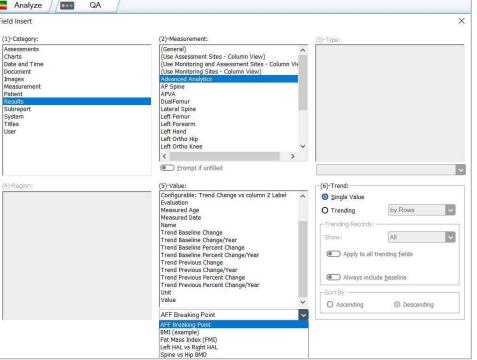
# MORE THAN **200** BONE AND BODY COMPOSITION PARAMETERS FOR ANALYSIS.

#### **BODY COMPOSITION ANALYTICS**

Tissue Mass TBLH Total Mass much more DXA Regions Parameters Left Arm	Densitometry
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In addition, Custom Regions of Interest (ROI) can also be used with Advanced Analytics feature.

Ability to insert DXA bone and body composition parameters, along with ability to also import custom metrics created through the Advanced Analytics feature.



- Create actionable patient goals based on evaluation of the results
  - Easily share custom-built reports with patients

The built-in dashboard allows pinning of select metrics and tracking of patient changes over time. Use Advanced Analytics to:

- Understand changes in BMD and body composition within various Regions of Interest
- Perform retrospective trending using past patient data
- Manage research studies with custom metrics for both BMD and body composition

Sample Metric = VAT Mass/Total Fat Mass

#### Regions DXA L1 Parameters L2 Area Spine L3 BMD L4 BMC L1-L2 BMD %AM L1-L4 BMD %YA BMD T-Score etc. BMD Z-Score Regions DXA Femoral Shaft Parameters Neck AFF Beaking Index Trochanter Area Shaft BMD Total BMC BMD %AM etc BMD %YA BMD T-Score BMD Z-Score

#### **BONE ANALYTICS - VARIOUS SKELETAL SITES**

# Productivity and Security

### Windows 10 Compatibility

enCORE v18 offers compatibility with the Windows 10 operating system and a new PC configuration.

	New Configuration	Previous Configuration
<b>Computer Configuration</b>	HP Z240	HP RP5810
Processing	Intel i3-8100 3.6G 4 processing cores	Intel Core i3-4330 3.5G 2 processing cores
Memory	8GB DDR4-2400	4GB DDR3-1600
Storage	1 TB	500 GB
Monitor	24"	20"

- New computer configuration
  - Faster processing power
    - More memory (RAM)
      - More storage
      - Larger monitor

### enCORE v18: A Secure Platform

enCORE v18 offers advanced security features to protect your data. This includes powerful encryption features for data storage and transit, plus an audit trail of software users.

New Feature	Added Security Benefit	
IPv6 for DICOM and HL7	7 Communication protocol integrating IPSec for better security during data exchange	
FIPS 140-2 Encryption	Federally compliant encryption standard that protects patient exam files using 256-bit encryption	
Audit Trails	<ul> <li>Logs information related to:</li> <li>Software configuration and user access changes, destination IP addresses</li> <li>Database events including authentication, patient modification/deletion</li> <li>Events supported by the DICOM Audit Trail Profile</li> </ul>	
TLS for DICOM®	Provides security at the transport layer of a DICOM transaction by using encryption and node authentication. TLS is an updated, more secure, version of the SSL protocol.	



#### HEALTHY BONES. HEALTHY BODY.

### **Recognized Leadership in DXA Technology**

DXA systems from GE Healthcare are built on an exceptional foundation and enCORE v18 offers advanced bone and metabolic health clinical applications.

### • Patented Narrow Fan Beam Scan

Combining the features of pencil beams and wide fan beams, Narrow Fan Beam technology offers a shorter scan time with reduced magnification error (inherent to wide-angle fan beam scans).

### • Low-Dose Photon Counting Technology

Dose-efficient photon counting detector technology more efficiently counts X-ray photons, lowering dosage to the patient.

### • Innovative SmartScan™

Our SmartScan technology reduces scan time and X-ray dosage by identifying bone regions after each transverse sweep and estimating where to begin scanning on the subsequent sweep.

#### • K-edge Filter

An exceptional "K-edge filter" that creates a dual energy beam and absorbs the X-rays in the middle energy range and protects the patient against unnecessary exposure.

#### • Multi-View Image Reconstruction (MVIR)

By performing multiple transverse sweeps across the site of interest, MVIR accurately determines bone-height above the tabletop, minimizes magnification errors and provides excellent precision and accuracy.

### Low Scattered Radiation

Narrow-fan beam technology results in low scatter radiation in comparison to wide-angle fan beam systems?

# **enCORE v18:** Offering More Possibilities from Your DXA Investment.



#### References:

1. Data on file with GE Healthcare, April 2019.

- 2. Not available in Japan.
- 3. Requires Advanced Analytics application.
- 4. Requires Atypical Femur Fracture (AFF) application.
- 5. Consult for market availability.
- 6. Requires CoreScan application.
- 7. Requires DXAVision or Sports Athletics package.
- 8. Requires DXAVision.
- 9. Data on file with GE Healthcare, January 2017.

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