



Bone & Metabolic Health

# Advanced Analytics

Advanced insights into bone  
& body composition

[gehealthcare.com](http://gehealthcare.com)

# enCORE v18 Advanced Analytics

The latest upgrade to our enCORE software elevates our world-class DXA family of products to a whole new level

Advanced Analytics allows you to create custom equations using existing data from your DXA system, set user-defined classification thresholds based on these equations, and establish actionable patient goals based on evaluation of the results. Later, these custom ratios can be printed out in a custom-built report to share the results with end users.

## Hundreds of Bone and Body Composition Parameters are available

Using Advanced Analytics, Clinicians, Sports Meds & Body Composition researchers can analyze DXA bone & body composition data using sophisticated techniques to discover deeper insights, create custom ratios, make predictions, and have metrics pinned on an in-built dashboard in enCORE software to track changes over time.

Metrics and trending can be performed on retrospective patient or athlete data too.

Advanced Analytics empowers researchers and clinicians to create a “metric” based on more than 200 DXA bone and body composition parameters captured during a DXA scan allowing creation of custom ratios and simple or complex mathematical equations.

Custom metrics can be used for research or in clinical practice to gain deeper insights into the changes in bone mineral density and body composition of various regions of interest over time.

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

Custom Regions of Interest (ROI) can also be used with Advanced Analytics feature.

$$\text{Sample Metric} = \text{VAT Mass} / \text{Total Fat Mass}$$



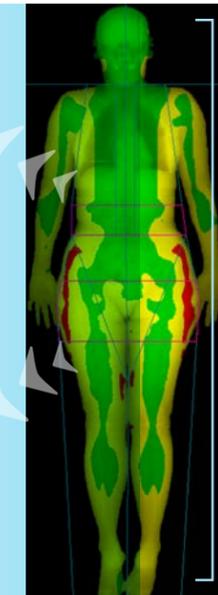
#### BODY COMPOSITION ANALYTICS

DXA Parameters	Regions
BMC	Left Arm
Fat Free Mass	Right Arm
Fat Mass	Android
Lean Mass	Gynoid
Region %Fat	VAT
Tissue %Fat	SAT
Tissue Mass	Total Body
Total Mass	TBLH
	much more

DXA Parameters	Regions
Area	Left Arm
BMC	Right Arm
BMD	Android
BMD %AM	Gynoid
BMD %YA	VAT
BMD T-Score	SAT
BMD Z-Score	Total Body
	TBLH
	much more

Composition

Densitometry



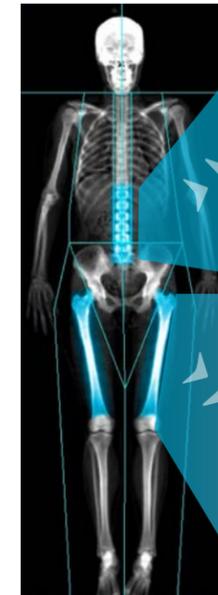
#### BONE ANALYTICS - VARIOUS SKELETAL SITES

Regions	DXA Parameters
L1	Area
L2	BMD
L3	BMC
L4	BMD %AM
L1-L2	BMD %YA
L1-L4	BMD T-Score
etc.	BMD Z-Score

Regions	DXA Parameters
Neck	AFF Beaking Index
Trochanter	Area
Shaft	BMD
Total	BMC
etc.	BMD %AM
	BMD %YA
	BMD T-Score
	BMD Z-Score

AP Spine

Femur



Note: Some parameters may require purchase of additional features.

# Advanced Insights

Clinicians, Sports Medicine & Body Composition researchers can analyze DXA bone & body composition data using sophisticated techniques to discover deeper insights, create custom ratios, make predictions, have results pinned on a dashboard, track changes of custom ratios over time, or generate clinical recommendations. Customer ratios can be run retrospectively too.

## ADVANCED INSIGHTS INTO BONE HEALTH

- Radiologists
- Rheumatologist
- Orthopedic
- Oncologist
- OB/GYN



- Endocrinologists
- Sports Med
- Nutritionists & Dietitians

## ADVANCED INSIGHTS INTO BODY COMPOSITION

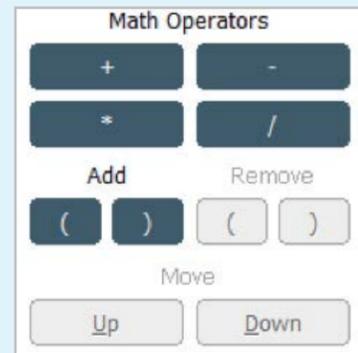
# Create new Metrics

Create simple or complex mathematical formulas using parameters from your bone and body composition exams.

Mathematical operators and parentheses have been provided to create complex mathematical equations.

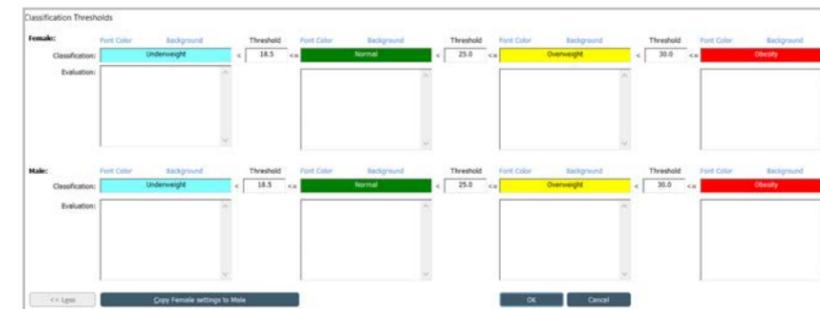
Equation:

$$\text{Fat Mass Index (FMI) (kg/m}^2\text{)} = \text{Total Fat Mass (Kg)} / \text{Patient Height [m}^2\text{]}$$



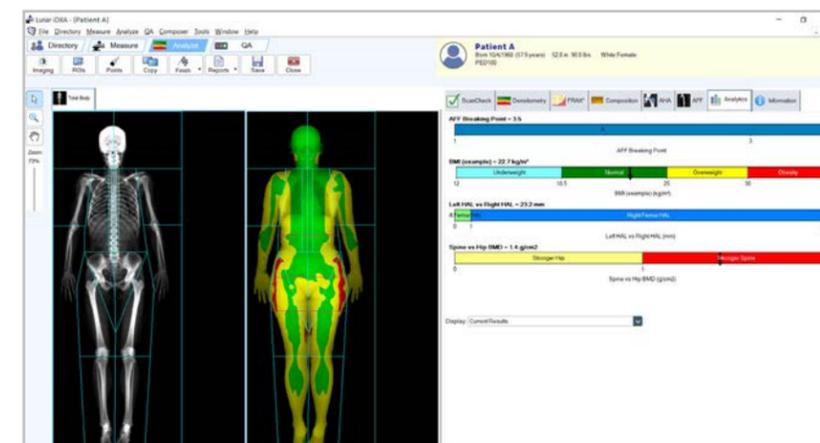
Easily create your own mathematical formulas and test your equation before it is finalized.

# Define Thresholds to drive results from your metrics



Define custom thresholds to enable automatic classifications and evaluation parameters.

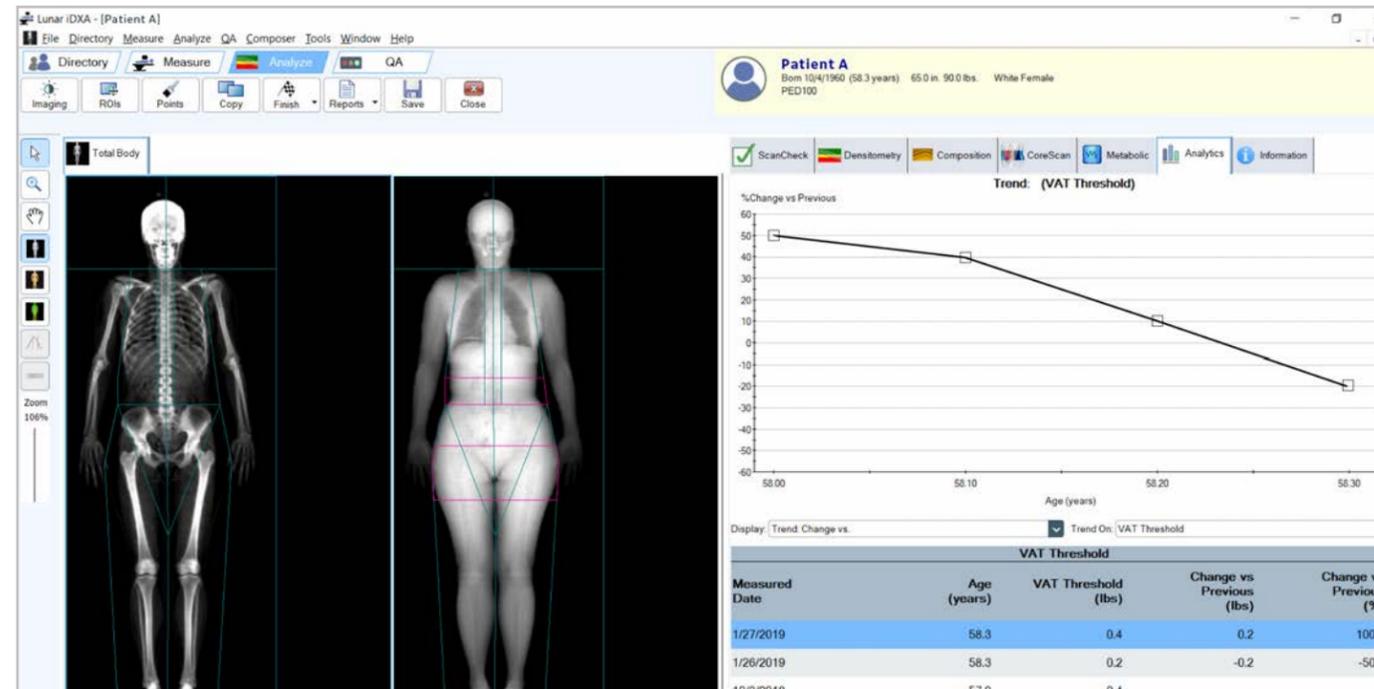
# Advanced Analytics Dashboard



Each created metric will be visible in the Analytics Dashboard. Newly created analytics can also be applied retrospectively to existing files.

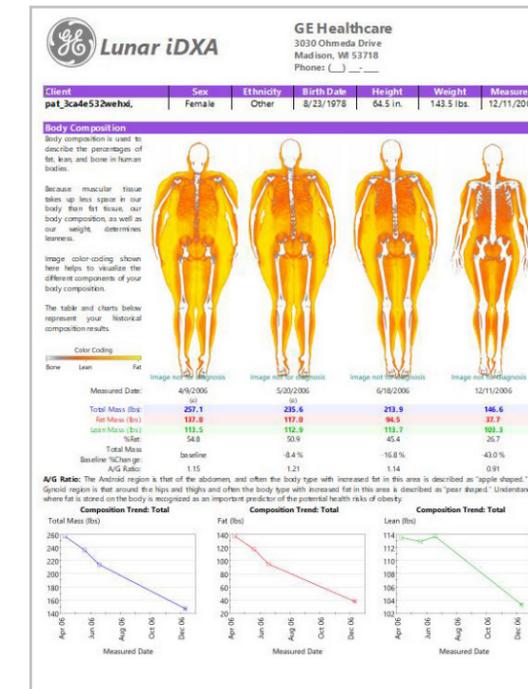
# Trend Metrics over time

Changes in metrics can be tracked and monitored over time when the patient or athlete comes back for a DXA scan.



# Your Metrics in Custom-Built Reports

Visual results and charts in custom reports that are easy to share. You can set thresholds and classifications to better communicate to patients and clients about changes over time in their bone and body composition.



Field Insert Configuration:

- (1) Category: Assessments, Charts, Date and Time, Document, Images, Measurement, Patient, Report, System, Titles, User
- (2) Measurement: AP Spine, APVA, DualFemur, Lateral Spine, Left Femur, Left Forearm, Left Hand, Left Ortho Hip, Left Ortho Knee
- (3) Type: (General), (Use Assessment Sites - Column View), (Use Monitoring and Assessment Sites - Column View), (Use Monitoring Sites - Column View)
- (4) Region: (Empty)
- (5) Value: Configurable: Trend Change vs column 2 Label Evaluation, Measured Age, Measured Date, Name, Trend Baseline Change, Trend Baseline Change/Year, Trend Baseline Percent Change/Year, Trend Previous Change, Trend Previous Change/Year, Trend Previous Percent Change/Year, Unit, Value
- (6) Trend: Single Value, Trending (by Rows), Trending Records (All), Apply to all trending fields, Always include baseline, Sort by (Ascending, Descending)





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