Unigamma M

## MULTIDETECTOR DEXA FAN BEAM BONE DENSITOMETER

Unigamma M is the all-purpose dexa bone mineral densitometer produced by l'acn.

The small fan beam technology and the scalable architecture allow an optimal compromise between productivity and image quality, no matter how large is yor patients throughput.

Unigamma M

Osteoporosis is an ever growing problem affecting millions of women and men worldwide. The healthcare costs associated with osteoporosis are staggering, and the effect on your patient's quality of life can be devastating.
But fortunately, osteoporosis is detectable and treatable. Testing is safe and non invasive so you can test for osteoporosis in your office.
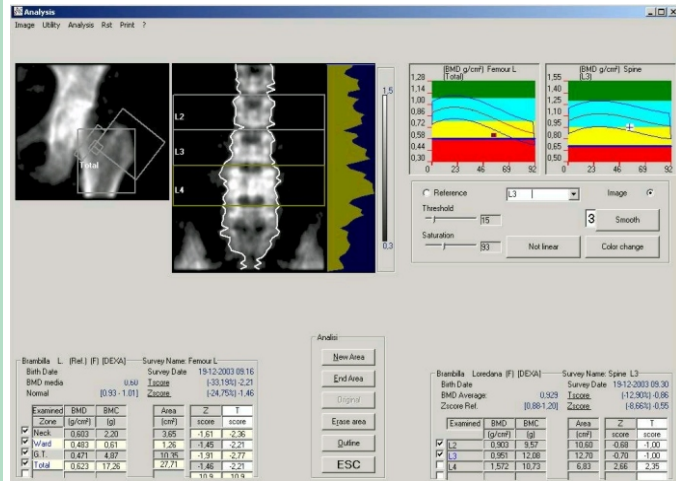
l'acn

Over 25 years now **l'acn** from the very North of Italy has designed and supplied bone densitometry systems to customers worldwide.
R&D efforts focus on providing efficient clinical solutions in a competitive environment.

Bone Densitometry

For many years researchers and clinicians have been measuring bone density to monitor and manage osteoporosis and other bone diseases. The use of dual energy allows for the correction of soft tissue variations. Pencil beam DEXA systems offer maximum accuracy with minimal exposure, while fan beam systems offer short scan times. Only the Unigamma family of DEXA systems combines the best of both worlds: multiple pencil beams and a fan beam geometry.
The standard measurements like AP spine and Hip (for the elder population) with respectively scoliosis correction and automatic metal exclusion are standard.

Body Composition Analysis:

By the "Bodycomposition" software Wholebody dexa scans can by analysed in order to calculate the percentage of bone, fat and lean tissue in of patient.
This application of the dexa methods is especially usefull for dieticians, in sports medicine of for the study of rare diseases.

Calibration and Compatibility:

In order to allow comparison the results are expressed in BMD (g/cm^2). The NHANES reference curves are included,
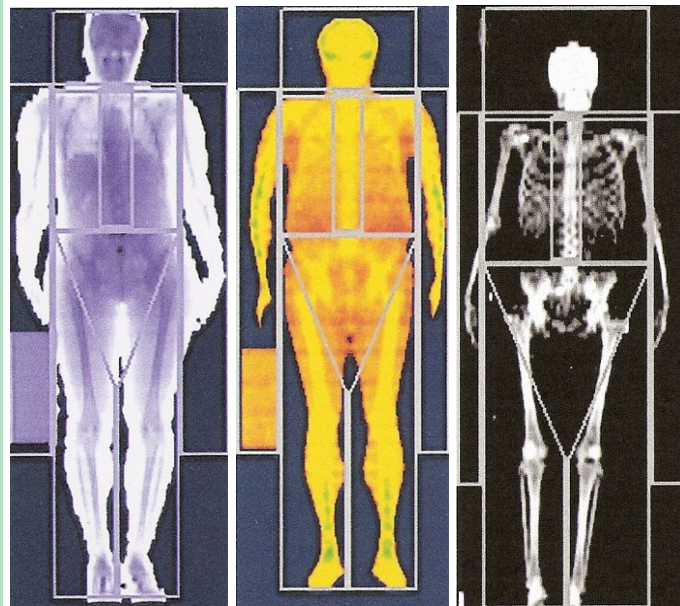
## TYPICAL SCAN TIME

Unigamma M - 5 det. version:

R.O.I.	PIXEL	SPEED	SCAN AREA	SCAN TIME
FEMUR	3 x 3 mm²	40 mm/s	15 x 15 cm²	30 s
SPINE	3 x 3 mm²	40 mm/s	15 x 22 cm²	40 s
TOTAL BODY	3 x 15 mm²	60 mm/s	65 x 200 cm²	3 min 40 s

Unigamma M

Multi Pencil Beams in Fan Beam geometry.

Finely collimated pencil beams (for 1, 3 or 5 detectors) ensure the lowest possible patient dose, while simultaneously allowing for fast scan times and optimal patient throughput. **l'acn** has employed its expertise to create a dependable and yet extremely versatile answer to the requirements of any customer, from the high throughput clinics to the small private doctor's practice.
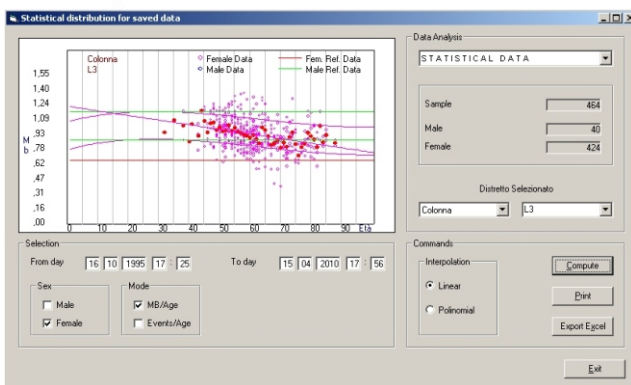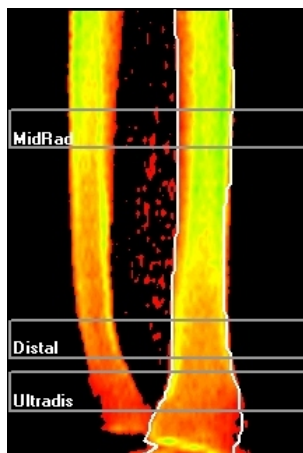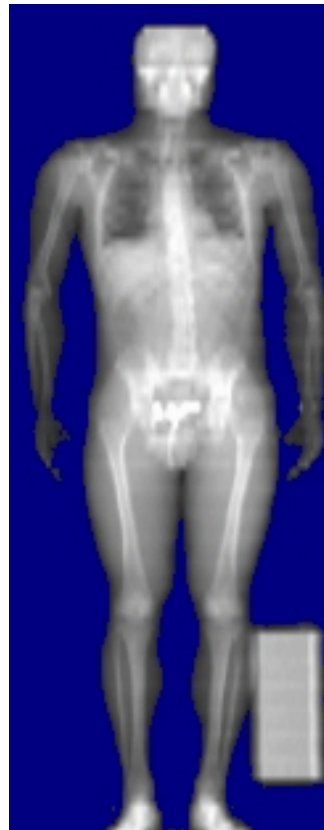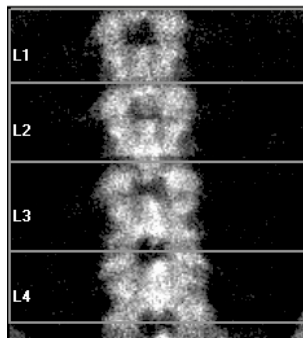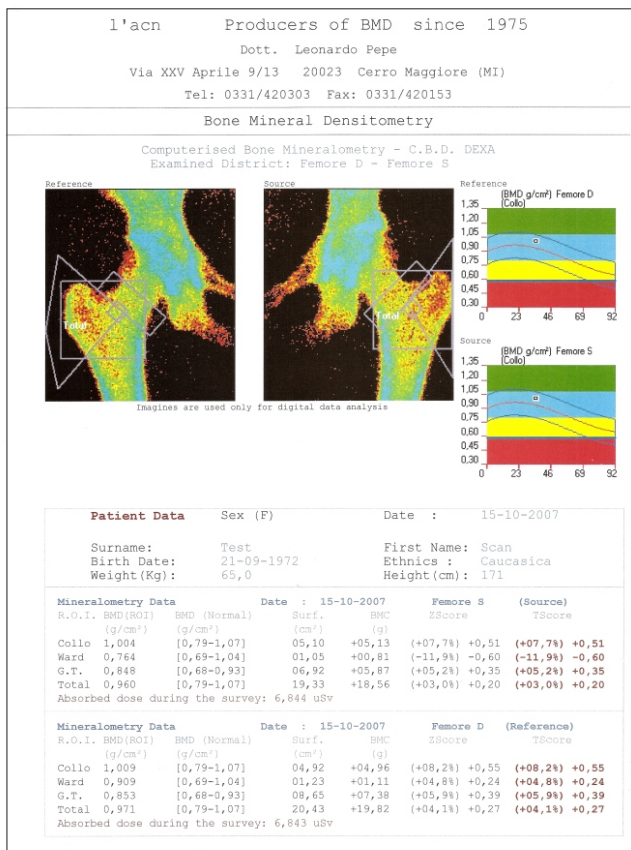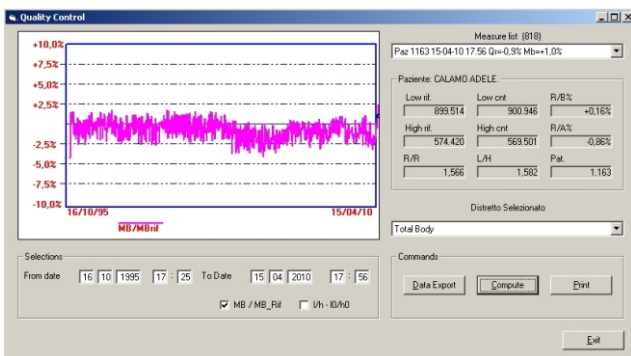

Quality control

Automatic daily and real-time Quality Control are implemented in the software, ensuring the maximum reliability of the results by reducing the possibility of human errors.

Quality control recordings can be consulted at anytime, as well as the statistical distibution of the results, which can be compared to expect normality trend.

Service and Maintanance

A worldwide network of qualified service engineer is on the field, to ensure the promptest after sales service. Please contact our local distributor for any technical issue..

Unigamma M

TECHNICAL SPECIFICATIONS

Principle: DEXA - small fan beam
Patient dose: typ. 3 uSv for an AP spine scan
Generator: HF, 86 keV at 0.4 mA (nominal)
Cooling: Oil, convection
Energies: 47 and 70 keV
Separation: K-edge samarium filtered
Filtration: min. 22 mm Al eq.
Linearity range: 0 - 1500 mg/sqcm
Precision: Approx. 1%
Accuracy: Better than 1%
Calibration: Compatible with industry standards
Beam size: 2 mm effective diameter
Scan time: typ AP spine 35 sec (5 detectors)
Results: BMD ,BMD ,Area, T-Score, Z-score
Bone edges: Automatic detection
Dimensions: 2400*1300*1700 mm (l*w*h)
Scan area: Max. 200 x 65 sqcm
Weight: 250 kg
PC system: any with Rs232 or USB port, LED
monitor, color printer
Software: Windows XP/7/8 compatible
European Reference Base/NHANES
Trending facilities
Combined scan and patient file
Automated quality control
Data Export capabilities
Dicom 3.0 compliant (optional)
Power: 100 - 230 VAC, 50 or 60 Hz
Temperature: 15 to 27 °C
Humidity: 10 to 80 % non-condensing
Analysis: AP Spine (also scoliotic)
Hip
Forearm
Wholebody
Prosthesis exclusion automatic (femur)
Lateral spine (option)
Hand (option)
Pediatric wholebody
Soft tissue analysis (Bodycomposition)
Pediatric spine and scoliotic (option)
Reference values
T-score and Z-score
Automatic quality conrtrol
Statistical analyis on database results
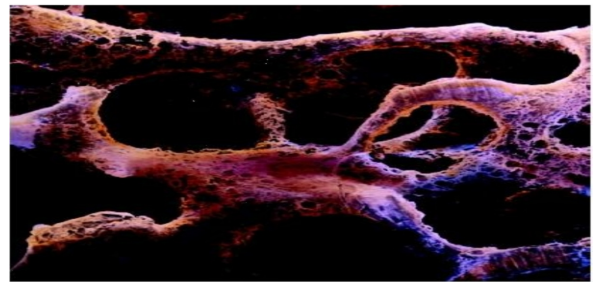
CLINICAL INDICATIONS

* Premenopausal ovarian disfunction
* Bilateral oophorectomy
* Early natural menopausa
* Natural menopause
* Renal disease
* Chronic liver disease
* Long term use of corticosteroids
* Malabsorption syndromes
* Prolonged immobility
* Rheumatoid arthritis
* Hyperparathyroidism
* Cushing syndrome
* Hypothyroidism
* Monitoring treatment effect
* Gonadal disfunction
* Family history of osteoporosis
* Diabetes
* Fracture after minimal trauma

(*) Specifications may be subject to modification without notice