STRATOS

DMS

The Most Complete
Bone Densitometry

DMS is pleased to bring you the Stratos – the complete DXA solution for bone health specialists seeking a cost-effective, powerful and fast solution for the diagnosis and follow-up of osteoporosis.

Drawing on the best features from DMS' complete bone densitometry range, the Stratos combines the very best in innovation and proven know-how. From technology to design to the software interface, the Stratos was developed to enhance practitioners' work while making it easier at the same time.

To ensure the quality standards of today's fast-paced medical environment, the Stratos is manufactured in an ISO factory, and is CE certified.

Technology

Technology: Based on the reference technology in the field of bone densitometry, the Digital Fast Beam permits extremely fast examination times (60 sec.) for the relevant sites implicated in the detection of osteoporosis (hip, spine and forearm) while of course providing the applications, including whole body, best suited to the diagnostic needs of the most demanding practitioners.

Design

Design: The Stratos was designed first and foremost to maximize patient and user comfort. The apparatus is accessible to all types of patients, including large/heavy patients (up to 150 kg.) and the short exam times ensure that patients are not in position for a long time.

Solution
for Your Everyday Practice

Software interface:

The Strato's software was designed to be user-friendly interface between the practitioner and the device. Accessing, storing and recalling data can be done with the simple click of a button. Of course, the software is completely DICOM compatible including Push, Print and Worklist.

The comprehensive solution

The Stratos is equipped with all the application tools necessary to ensure the most accurate and thorough diagnosis.
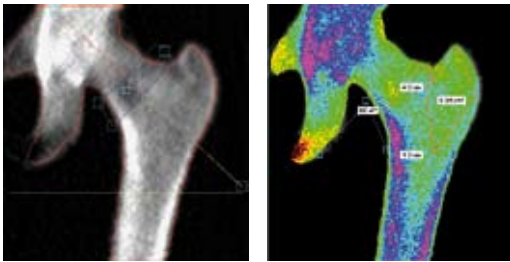
Morphometric capabilities

The optimal image quality provides access to morphometric information such as dimension, angle and bone length (i.e., length of femur axis). The "femur density mode" delivers a colour mapping of the femur density, and a BMD scale. This quantitative information provides the necessary tools for a thorough and precise diagnosis."
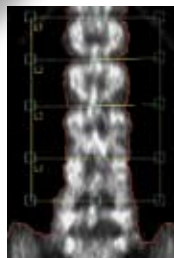
Whole Body

The Whole Body function provides information about total BMD and body composition, thus enlarging the application range of the device and opening the doors for other disciplines.

Multi-site with automated ROI selection

The ROI (Region of Interest) for multi-site exams is automatically detected by the software, thus eliminating operator error. This automatic selection helps guarantee the most accurate and reproducible results possible.

Orthopedics

The orthopedic option calculates BMD around the prosthesis and enables a smart implant management.

Improved workflow

In response to today's fast-paced, demanding medical environment, practitioners are constantly searching for ways to improve patient workflow without compromising on the quality of the diagnosis. The features available on the Stratos were all designed to facilitate the practitioner's task, while simultaneously ensuring the best in quality standards.

In-Row Scan

In-Row Scan allows the femur and the spine, the most relevant sites in the diagnostic of osteoporosis to be scanned in one automatic process. As the two exams are performed one after the other, without having an analysis performed in between the two exams, time is saved for both the operator and patient.

Digital Vertebral Assessment

The Digital Vertebral Assessment (DVA) provides a lateral image of the spine and is a further source of qualitative information, making it possible to assess the risk of vertebral fracture based on the Genant semi-quantitative method.
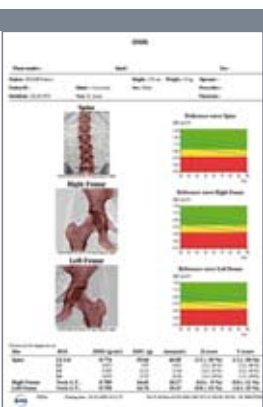

Total-Hip

To provide the doctor with the best possible comparative data, the Total-Hip feature scans both femurs so that the lowest BMD measurement can be identified. By not having to rely on one femoral reading, the doctor is able to make the most accurate diagnostic possible.

Multi-report

Multi-Report offers the possibility of viewing and examining up to three exam areas simultaneously on one clear consolidated report. Three different exam sites (spine, hip and forearm for example,) from the same day can be combined and presented in one easy to read report to help facilitate interpretation and diagnosis. Three exams of the same site taken on different days can also be combined in one report to help save time on patient monitoring and follow-up.

STRATOS

Connectivity Solutions improve patient throughput

DICOM
Fully equipped with DICOM capabilities, storing, printing and transferring patient reports has never been so quick and easy.

PACS
The DICOM solutions available on the Stratos help practitioners to manage the information in their PACS server quickly and efficiently.

Email and fax
The connectivity features make it incredibly easy to send reports directly from the device by way of fax or email.

Tele-maintenance and tele-training
Training and maintenance are also improved with the connectivity solutions. A technician can connect to the device from a distance in order to help with any questions that may arise, or to guide the user through a tutorial of the software interface.
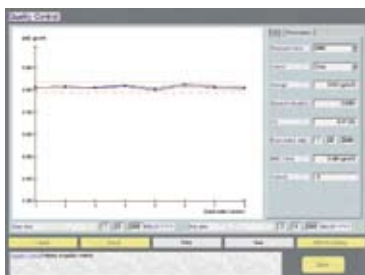
Workstation
In order to help busy x-ray departments save time and energy, the Stratos offers the possibility of allowing multiple workstations to connect to the device's data from a distance. A connection via the local network allows approved administrators in another part of the hospital (or in another hospital) to connect to the server and access and work on exams and reports.

Gynecologist
Orthopedist
Pediatrician
General pracitioner
Sport doctor

PACS

Exam room

Mobile terminal

Workstation

Radiologist in adjacent hospital

Quality control
Automated everyday quality control makes sure of the accuracy and stability of the measures taken by the Stratos. An alert message is automatically set off in case a difference is found in the results. A detailed daily control report can then be printed or sent by e-mail for the follow-up work.

Technical Specifications

X-ray system
- Dual X-ray Absorptiometry (DXA)
- Digital Fast beam with X and Y kinematics
- Energy splitting using Samarium filters

Method of analysis
- Pre-regulated exam modes: exam parameters adjust automatically based on patient's morphology
- Personalized options: motor drive speed (mm/sec); selectable image height and width

Calibration and Quality control
- Quality control using external phantom
- QC trend plotting integrated in the software
- Control of internal calibration between each scan
- Auto-calibration disk integrated : reduces noise level and improves reproducibility and accuracy
- Dual-beam collimator: optimizes image quality and patient dose for each exam site

Software fully compatible with Windows XP and Vista
- Archiving system on CD, DVD or external hard drive
- DICOM compatibility (Push & Print 3.11, Worklist) as an option
- Patient follow-up graphs
- Detailed color print out of report (bone + reference curve + analysis report + operator comment + follow-up)
- Multi-report for comparative purposes
- Calculation of standardized BMD (Comparison to NHANES III normative data of the femur)
- Morphometric tools (distance, angle, area) ex: hip length axis
- Density display in color scale
- Multi-user (different profiles can be configured: technician, doctor, etc.)
- Personalized multiple reference populations
- Data base importation
- Telemaintenance software (option), network connection needed
- Touch screen (option)
- Multi-language software available

Minimal Hardware Configuration
- PC Processor 2.5 GHz or better
- 512 MB RAM
- 60 GB hard disk or better
- CD burner
- SVGA display monitor resolution 1024 x 768 or higher
- Touchscreen (option)
- Color printer
- Windows XP or better
- LAN port and USB port for communication

Scan time and doses
- Type of scan   Best scan time

Type of scan	Best scan time
Spine	60 sec
Hip	60 sec
Forearm	60 sec

- Operator dose :< 0.5 µSv/h for typical usage (negligible) Distance to operator: 1 m

Dimensions and weight
L 240 x W 125 x H 145 cm
250 kg/ 521 lbs

Environnemental requirements
- Ambient temperature: 20 - 27°C (68 – 80.6 °F)
- Humidity: 20% - 80%, relative humidity, non condensing
- Electrical requirement: 110 VAC +/-10% 10A 50/60 Hz 230 VAC +/-10% 5A 50/60 Hz
- No external shielding is required
- As part of our continued efforts to respect the environment, we have chosen a mattress that does not contain PVC.

Precision
In vitro - In vivo <1%

Applications
- Calculation of BMD, BMC, surface, T-score and Z-score
- Automatic and manual selection of Region Of Interest (ROI)
- AP Spine (L1 – L5)
- Lateral spine BMD
- Hip: femoral neck, trochanter, intertrochanter, Total hip
- Forearm (1/3, mid and ultradistal region)
- Whole body: Total BMD and body composition
- Total Hip
- In-row-scan
- Pediatrics (option)
- Orthopedics (option)
- Digital Vertebral Assessment (DVA)
- Fracture risk
- Advanced Morphometry Tools
- Customizable reference data editor
- Nhanes III curves

Mechanical Data:

IMAGES
FOR
LIFE

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