DMS IMAGING

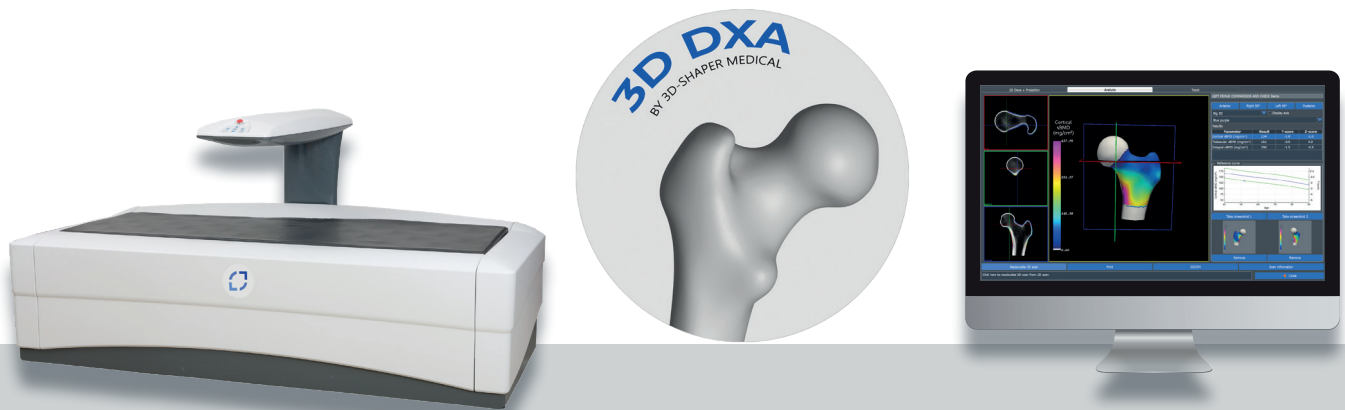# STRATOS SERIES

3D-DXA: EMPOWERING EXPERTS WITH ACCURATE DIAGNOSIS AND SEAMLESS TREATMENT FOLLOW-UP

Optimise patient care with **individualised**, **targetted** treatment plans and **evidence-based** decision making using 3D-DXA technology:

▪ **Unique technology** that analyzes the bone in 3D from a standard femur DXA scan without additional radiation

▪ **New dedicated clinical parameters** and **reference curves** to measure and separately monitor cortical bone and trabecular bone:

→ *Cortical surface BMD*   → *Trabecular volumetric BMD*   → *Integral volumetric BMD*

▪ **More than 200 studies** worldwide highlighting the clinical benefits of using 3D bone parameters in daily clinical use.

▪ Identify local fragilities, prescribe targetted treatments and **effectively monitor change** in bone health over time

BONE DENSITOMETRY: MADE IN FRANCE INNOVATION

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CLINICAL CASE

AN EARLY POST–MENOPAUSAL WOMAN WAS REFERRED TO THE CLINIC FOR A ROUTINE BONE ASSESSMENT.

PATIENT PROFILE

History:
- Age: 51
- BMI: 20 kg/m²
- Menopause age: 49
- No history of disease or pathology

Clinical Assessment:
- Colles fracture 10 years ago
- Smoking: 15/day
- Alcohol : normal consumption
- Dietary calcium intake: 600 mg/day

INITIAL EVALUATION

Initial evaluation was performed using DXA exam. **No treatment** was prescribed following the results.

- Total Hip T-Score: -2.3
- Osteopenia
- FRAX results:

Probability of osteoporotic fracture: 6.7 %
Probability of hip fracture: 3.6 %

A HIP FRACTURE HAPPENED 5 YEARS LATER

A retrospective analysis was performed, processing the previous DXA exams using 3D-DXA technology. 3D analysis showed **low Trabecular density.**

- Cortical sBMD:
T-Score: -1.7
Z-Score: -1.2
- Trabecular vBMD:
T-Score: -2.9
Z-Score: -2

CASE STUDIES

3D-DXA has been proven to effectively differentiate the effects of various treatments and **provide a clear rationale** for clinicians when initiating, monitoring and modifying treatment plans.

Case studies* conducted worldwide highlighted that **Trabecular vBMD of the femur is the best predictor of fracture.**

Cortical and trabecular bone of patients with prevalent major osteoporotic fracture : a case-control study using DXA-based 3D modelling - R. Winzenrieth, L. Humbert, E. Leib - 2018

CONCLUSION :

If 3D-DXA had been included in the initial bone assessment, it would have been possible to:
- Indicate an increased risk of fracture linked to low trabecular bone density
- Support a medical decision to initiate a pharmacological treatment, before it's too late
- Provide clear indication to continue, modify or cease treatment

3D-DXA can help to predict fracture and better manage "high-risk" patients, in particular:
- **Osteopenic patients**
- **Secondary osteoporosis** (Hyper parathyriodism, CKD, Glococorticoids, Cancer, ...)