calscan DXL

- Accuracy
- Simplicity
- Clinically proven

- The best DXA solution for your practice –

Scanflex | Demetech

www.demetech.com

Accuracy – DXA improved

The DXL Calscan uses our Dual X-ray and Laser technique, which combines traditional DXA with a precise laser measurement of heel thickness to allow better exclusion of adipose tissue than with DXA alone. Demetech AB has been awarded the Frost & Sullivan Technology Innovation Award for the DXL technique.

With over 35 clinical studies published in leading scientific journals around the world, DXL Calscan is a clinically proven tool for any health care center, private physician office or outpatient facility interested in fracture prevention. Calscan also creates an attractive service for your patients, empowering them to take steps that can improve their bone health.

In a hospital environment the DXL Calscan can be used as a stand-alone tool or as an effective complement to axial DXA devices. Scanning all outpatients with fractures before their release can be an effective tool for preventing future hip fractures. Also, many patients with conditions that distort the results of spine or hip scans, such as obesity, scoliosis, vertebral compression fractures, and hip implants can be accurately scanned with the Calscan.

Everyone should have the right to know their bone status with a quick and reliable DXA scan.

Our award-winning DXL technology makes this possible.

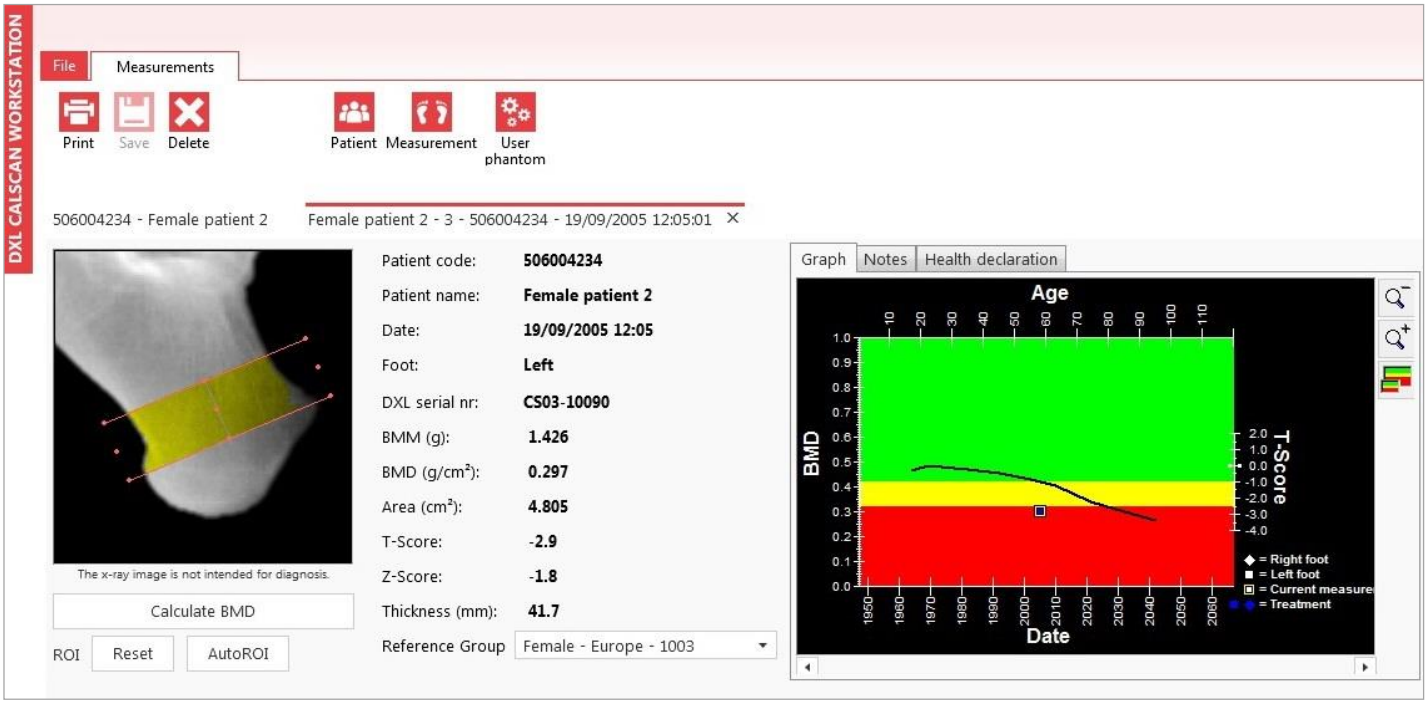
2007 FROST & SULLIVAN Technology Innovation Award

"Demetech develops, manufactures and markets systems for the diagnosis and early detection of osteoporosis. Demetech, headquartered in Sweden, was founded in 1996. Dual X-ray and Laser, commonly called DXL, was invented by a team of Swedish doctors, researchers and engineers. Demetech is the only company in the market with the DXL technology. Demetech has patented its Dual X-ray and Laser technology in Europe, North America, China and Japan."

"By enabling the early diagnosis and treatment of osteoporosis in a primary care setting, quality of life may be extended using DXL Calscan"

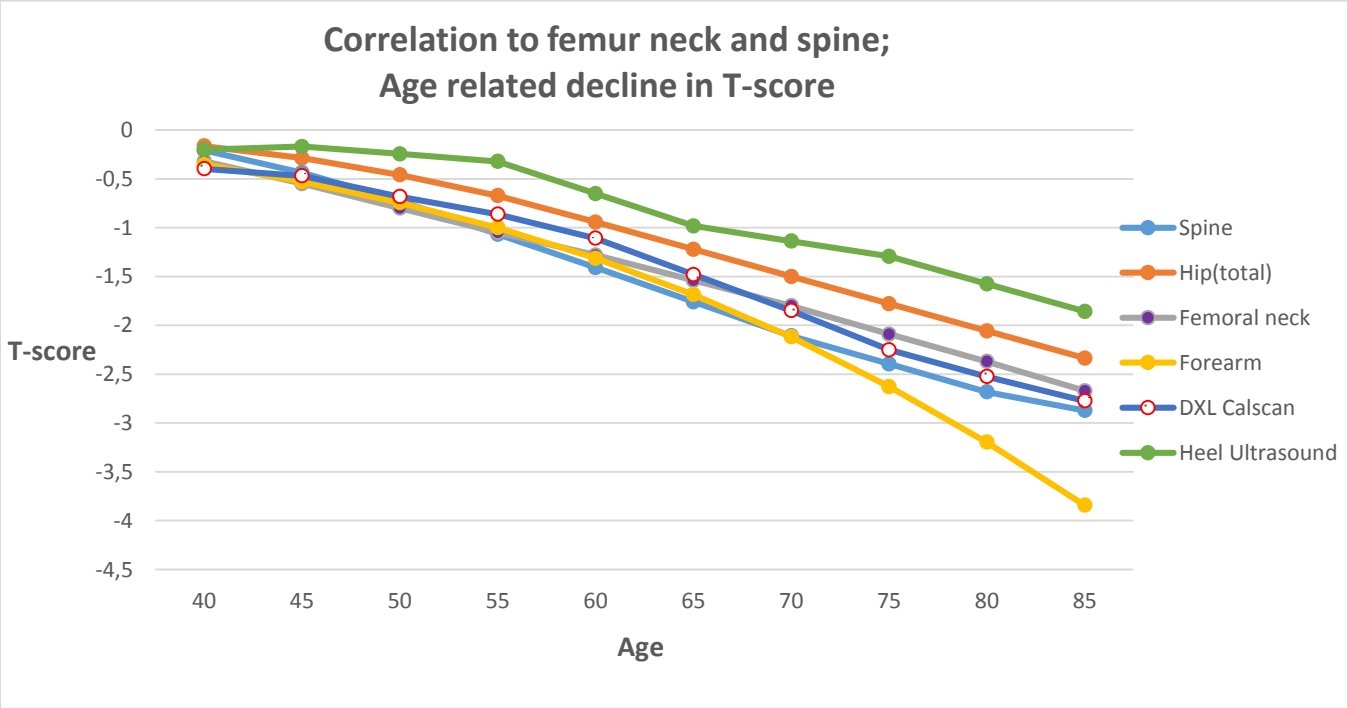
Frost & Sullivan Technology Innovation Award citation

Simplicity - Windows-based software



Internal Calibration
An internal phantom automatically calibrates the system before each patient scan. X-ray systems can often experience "drift" during use, while DXL Calscan digitally adjusts for these variations, ensuring the best possible results.

Automatic Region of Interest
The Auto-ROI function finds the correct scan site for each patient, allowing operator independent results. The coefficient of variation is 1.2% in vivo, as shown in multiple clinical studies.
Monitoring of response to treatment is made easy, as Calscan will find the same region of interest on follow-up visits. The calcaneus, with 95% trabecular bone, is the most trabecular-rich bone in the body.



[1] Kullenberg R., Falch J. Prevalence of osteoporosis using bone mineral measurements at the calcaneus by dual X-ray and laser (DXL), *Osteoporosis International* (2003) 14: 823-827.

[2] Kullenberg R., Reference database for Dual X-ray and laser (DXL) Calscan bone densitometer, *Journal of Clin. Dens*, vol. 6 no.4, 367-371, 2003.

Clinically proven – What do the experts say?

Prospective hip fracture study of 4,398 females aged 50-99 years, with an average follow-up of 3 years 11 months or 17,200 person years resulting in 130 hip fractures.
Conclusion: "The age-adjusted AUC (area under receiver operating curve) of DXL of calcaneus to predict future hip fractures was 0.84, which is better than that previously reported for DXA of the femoral neck. Of the patients who sustained a hip fracture 78% had a DXL T-score of <-2.5. DXL of calcaneus may therefore be suitable for diagnosing osteoporosis and for predicting fracture risk."
Brismar TB, Janzky I, Toft L, *Journal of Osteoporosis,* 2010; Karolinska Institute, Stockholm, **Sweden**

Vertebral fracture study including 588 subjects, at least one prevalent vertebral fracture identified by X-ray was detected in 160 of them. "Regarding the identification of subjects with prevalent vertebral fracture, low BMD determined by DXA at the femoral neck or DXL at the calcaneus generally is superior compared to measurements at the lumbar spine."
When clinical risk factors were combined with BMD results, the sensitivity and specificity, as expressed by AUC (area under receiver operating curves), was identical for DXL calcaneus and iDXA femoral neck at AUC=0.869.
"There was no difference whether BMD was determined at the hip or calcaneus."
C. Muschitz, H.P. Dimai, R. Kocijan, A. Kaider, A. Zendeli, F. Kühne, A. Trubrich, S. Lung, R. Waneck, Heinrich Resch; *Osteoporosis International, 2013 Aug;24(8):2181-90* St. Vincent Hospital - The VINFORCE Study Group, Vienna, **Austria**

"The Calscan is well suited for use in the management of post-menopausal osteoporosis."
Thorpe, J, Steel, S, *The British Journal of Radiology*, 79 (2006), 336–341. Centre for Metabolic Bone, Hull Royal Infirmary, **United Kingdom**

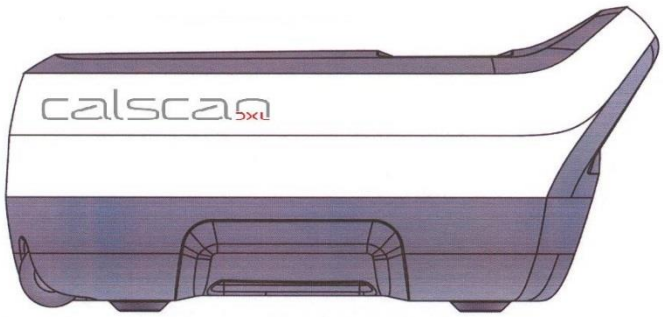
"Our data showed that DXL Calscan provides a convenient method of measuring skeletal BMD with some advantages over axial BMD. Calscan diagnostic capacity and relationships with other sites of the skeleton are excellent."
Martini G, Valenti R, Giovani S, Gennari L, Salvadori S, Galli B, Nuti R; *Journal of Clin. Densitometry*, Vol 7, No. 3 2004, p.349-354, Sienna, **Italy**

"We conclude that DXL measurement at the heel bone, using a T-score threshold of –2.5 for classification of osteoporosis, is in concordance with the World Health Organization (WHO) definition of osteoporosis."
Kullenberg R, Falch J; *Osteoporosis International* (2003) 14: 823-827. Center for Endocrinology, Aker Univ. Hospital, Oslo, **Norway**

"DXL Calscan provides a more accurate measure of calcaneal BMD than traditional DXA instruments."
Hakulinen M, Saarakkala S, *et al*; *Physics in Medicine and Biology* 48 (2003) 1741-1752. Dept. of App. Physics, University of Kuopio, **Finland**

"We conclude that BMD values obtained with DXA and DXL correlate well and that the DXA and DXL techniques effectively identify the same individuals with low BMD."
Söderpalm AC, Kullenberg R, Swolin-Eide D; *Journal of Clinical Densitometry., vol.11, no.4,* (2008) *p. 555-560, Sahlgrenska Univ. Hosp. Göteborg,* **Sweden**

"DXL Calscan identified correctly significantly more cases of clinical osteoporosis than axial DXA. This was due to the lack of sensitivity of the hip results and the falsely elevated scores often found in spinal scans of the elderly."
Rodionova, SS, Morozov, et al; Central Institute of Traumatology and Orthopaedics, Presentation, *2006 Annual Congress of Traumatology*, Moscow, **Russia**



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