



Mindways QC1

Bone Density Solutions for Clinical Screening & Research applications





- Trabecular Spine BMD
- DXA-equivalent hip BMD
- FRAX[®] Compatible
- In ISCD and ACR guidelines
- NEW CliniQCT eliminates the phantom under the patient
- Quick & simple; typically a 5 minute test
- Reimbursed by Medicare and insurance



3D Volumetric Spine and Hip BMD

CliniQCT



CliniQCT eliminates the phantom from the patient scan.

CliniQCT & QCT Pro—for 3D Volumetric spine and hip QCT

QCT Pro is a system consisting of calibration phantoms and software for trabecular spine and DXA-equivalent hip BMD. QCT Pro is Windows[®] based for flexibility and durability and is compatible with any DICOM CT scanner. The system will survive a computer change, CT Scanner upgrade, or CT scanner maintenance such as an X-ray tube replacement.

CliniQCT - Asynchronous calibration method

Mindways introduces its next generation of QCT that eliminates the patient calibration phantom without compromising short-term precision or accuracy. CliniQCT expedites QCT BMD studies and facilitates incidental, and dual-use QCT—the capability to obtain BMD measurements from CT scans done for other indications—thereby providing an opportunity to greatly increase osteoporosis screening with no additional radiation dose to the patient.

Quick, low-, or no-dose BMD

A QCT BMD specific exam takes about 5 minutes and is very similar to an ordinary abdomen/pelvis CT scan. Low dose CT protocols and dose reduction software could be used.

Incidental or dual-use QCT eliminates the need for a dedicated CT scan for estimation of BMD and thus provides BMD results with no additional patient radiation dose.

How does QCT compare to DXA?

At the hip, QCT produces DXA-equivalent measurements compatible with FRAX[®]. At the spine QCT is unique in measuring exclusively trabecular bone, compared to DXA's combined measurement of cortical and trabecular structure. Measuring only trabecular bone avoids certain confounding conditions such as those associated with degenerative changes, scoliosis, extra-osseous calcifications and obesity.

Return on Investment

BMD measurement by QCT is reimbursable for the medically necessary screening of post-menopausal women every two years. Medicare and insurance reimboursments are covered by CPT code 77078. QCT Pro's acquisition and ongoing overhead costs are significantly less than DXA, leading to better return on investment and greater financial viability.



Incidental/dualuse QCT.

CliniOCT lets you obtain no-dose spine and/or hip BMD measurements from your routine* abdomen, pelvis, or spine CT scans.

*Non-IV contrast



Quantitative computed tomography (QCT) is one of 3 methods cited by the National Osteoporosis Foundation as safe and effective for the evaluation of bone mineral density (BMD).





55 to 90% of osteoporosisrelated fractures occur in individuals that would not be diagnosed with osteoporosis based on a DXA BMD test.

Stone, et al; 2003; J Bone and Mineral Research

The QCT Spine Trabecular Advantage

By measuring trabecular bone exclusive from cortical bone, QCT avoids conditions which can confound DXA.



Degenerative disease



Scoliosis

Extra-osseous calcifications

"In conclusion, volumetric QCT scanning and image analysis procedures have shown that trabecular BMD measurements by QCT are not influenced by OA, and that degenerative changes have a significant effect on both cortical and integral QCT as

> well as on PA-DXA at lumbar spine and at the hip. OA changes therefore represent a major source of accuracy errors for DXA, usually overestimating BMD. Thus, for subjects with established OA, assessment of skeletal status by volumetric QCT may be suggested."

Guglielmi et al., Acta Radiol, 46(3): 269-275, 2005.



DXA-Equivalent Hip

Country: US (Caucasian)	Name/ID: OCT Hip		About the risk facto
Questionnaire: 1. Age (between 40 and 90 years) or Date of Birth Age: Date of Birth:		10. Secondary osteoporosis 11. Alcohol 3 or more units/day	⊙ne ®ye ⊛ne Dyer
74 Yz 1940	M: 11 D: 06	14- Femoral neck BMD (g/cm*)	
2. Sex	O Male 🛞 Female	Mindways QCT (0,45)	1-score: -2.9
3. Weight (kg)	62	Clear Calcul	ate
4. Height (cm)	162	Long to the second	
5. Previous Practure	INO OYES	EMI: 19.8 The ten year probability of fracture ((s) 🔘
6. Parent Fractured Hip	O No @Yes	with 8MD	
7. Current Smoking	Who Over	Major osteoporotic	-62
8. Glucocorticoids	@ No O Yes	Hip Fracture	30
9. Rheumatoid arthritis	O No @Yes	If you have a TBS value, dick here	Adjust with TBS

- Same areal measurements
- Same ROI's
- Comparable T-scores

FRAX[®] Compatible



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CliniQCT refers to the optional QCT Pro Asynchronous Calibration Module that provides additional calibration functionality to the Mindways QCT Pro Bone Mineral Densitometry System.

Windows® is a trademark of Microsoft Corporation.

FRAX® is a trademark of the Centre for Metabolic Bone Diseases, located at the University of Sheffield Medical School, UK.

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