

Why Do We Scan? What Do We Expect?

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Why Are Bone Mass Measurement Studies Performed?

- To make a Dx of osteopenia & osteoporosis
- To predict fracture risk
- To follow serial monitoring to measure response to intervention(s) or medication/disease that effect bone

The Dx of Osteopenia & Osteoporosis

- World Health Organization criteria for the diagnosis of osteopenia & osteoporosis

Osteopenia = T-score < -1.0 and > -2.5 SD

Osteoporosis = T-score < -2.5 SD

The Prediction of Fracture Risk

- Low bone mass is the most important prediction of fragility fracture
- The three most powerful risk factors are low BMD, increasing age, and prevalent vertebral fractures. Falling is an important risk factor for hip fracture.

Serial Assessment of Bone Mass

- Can be used for monitoring of the natural progression of disease process
- For monitoring the response of bone to pharmacological interventions
- The change observed between serial BMD can be expressed as a percentage change between two measurements or absolute change (in grams/cm²) between two measurements

What Do We Expect?

- Is it possible to see low bone mineral density with patients who have a history of Turner's Syndrome, vertebral fractures, cigarette smoking, alcohol use, and hyperparathyroidism? Yes.