

FROM EPIDEMIOLOGICAL TOWARD CLINICAL DIAGNOSIS OF OSTEOPOROSIS

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Osteoporotic fractures are a major cause of disability and death. In 2010, 3.5 million new fragility fractures were sustained in the EU with the estimated economic burden at € 37 billion. The costs are expected to increase by 25 % in 2025. However, the majority of individuals after an osteoporosis-related fracture or those at high risk of fracture are untreated and the number of patients on treatment is declining.

One of the important reasons for that might be the fact that the World Health Organization (WHO)'s definition of osteoporosis is based exclusively on bone mineral density (BMD) measured with dual energy x ray absorptiometry (DXA). Therefore, osteoporosis is officially still classified only as BMD 2.5 or more standard deviations (SD) below normal peak bone mass—that is, a T score ≤ -2.5 SD, although this concept was originally intended solely for epidemiological purposes.

As many fragility fractures occur in people with BMD values above this level there is a need to expand the criteria for making a clinical diagnosis of osteoporosis to individuals who have either already sustained major osteoporotic fractures or have high calculated fracture risk according to FRAX, the WHO fracture risk assessment tool. This will help us to better understand that in clinical practice the diagnosis of osteoporosis is actually a synonym for the elevated risk for fracture.