

(54) Title of the invention : ANALYSIS AND USES OF DXA BONE DENSITY SCANS IN THE DIAGNOSIS AND TREATMENT OF OSTEOPOROSIS

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(57) Abstract :
ABSTRACT: Bone density can be assessed using a test that quantifies the concentration of minerals, such as calcium, within your bones. The dual-energy X-ray absorptiometry (DXA) test is the most often utilized and adaptable method. The objective of this is to detect osteoporosis PRIOR to experiencing a bone fracture, to aid in predicting the probability of future bone fractures, and to assess the effectiveness of osteoporosis treatments. The test can be completed in a short amount of time, as it is straightforward to comprehend. Dual energy x-ray absorptiometry (DXA) scans are utilized to assess bone mineral density (BMD) at the hip and spine, and they have a crucial role in evaluating individuals who are susceptible to osteoporosis. These scans also aid doctors in providing patients with guidance on the proper use of antifracture medicines. The World Health Organization T-score concept of osteoporosis is widely accepted for interpreting bone mineral density (BMD) data. The utilization of hip and spine DXA tests, as opposed to other bone densitometry procedures, offers several distinct benefits. The advantages encompass a demonstrated capability to anticipate the likelihood of fractures, established efficacy in directing antifracture treatments, and the capacity to track the response to treatment. This study examines the evidence supporting several clinical characteristics of DXA scanning and discusses their implications. This encompasses the function of DXA scans in the updated WHO algorithm for managing patients according to their individual fracture risk.

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