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Bone mineral measurement in Japan

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Various methods for evaluating bone mineral in appendicular, and axial bone or in the whole skeleton have recently become available. As bone mineral is one of the major determinants of bone strength, its exact measurement should be useful for the diagnosis of osteoporosis, as well as for the prediction of fracture risk and monitoring of therapeutical response.

The aims of this paper are to review the fundamental performance of bone mineral measurements, the improvements in DXA systems, and the progress in site-specific bone mineral instruments for the radius and calcaneus used in Japan, and to introduce diagnostic criteria for primary osteoporosis, and report on annual rates of bone loss in Japanese females.

Key words: bone mineral measurement, osteoporosis, fundamental performance, DXA, diagnostic criteria