

## Osteoporosis, prevention, diagnosis and treatment

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### Abstract

Osteoporosis, a disease, characterized by low bone mass and microarchitectural deterioration of bone tissue leading to enlarged bone fragility and a consequent increase in fracture risk is a leading cause of morbidity and mortality in elderly people. The mortality rate in elderly persons with hip fracture approaches 20%. Half of them will be disabled in the remained life; it is caused when bone resorption proceeded bone formation. Peak bone mass and bone loss are major determinants for risk of fragility fractures in people. Dangerous complication of osteoporosis is pathologic fracture that can cause even death among patients. Now a days multiple treatments are available and more are being developed. From prevention to treatment of established disease, the goal is to intervene as early as possible to ensure saving of bone mass and to preserve structural integrity of the skeleton, thus preventing pathologic fractures. Currently available drugs are anti-resorptive and focus on decreasing bone turnover. Newer therapies with the aim of increasing bone formation are being studied and are about to be released.

This document outlines all aspects of osteoporosis including risk factors, diagnosis, treatment and prevention all over the world and Iran.

**Key Words:** Osteoporosis, Pathologic fracture, DXA, QUS, Bisphosphonates, Calcitonin, PTH, SERMs, and HRT.

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