

OSTEOPOROSIS AND LIFESTYLE FACTORS

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Osteoporosis is a disease characterized by low bone mass and deterioration in the microarchitecture of bone tissue, leading to an increased risk of fracture. Osteoporosis is associated with a number of lifestyle factors, including nutritional factors such as intake of calcium, protein, dairy food, fruits and vegetables and vitamin D status, and behavioral factors such as physical activity, smoking and alcohol consumption. Ensuring adequate calcium intake and vitamin D status and having regular weight-bearing physical activity throughout life are important for bone health and the prevention of osteoporosis and related fractures. Studies have shown that smoking and excessive alcohol intake have adverse effects on bone health and increase the risk of fracture. There is evidence suggesting that adequate protein intake and higher intake of fruits and vegetables are beneficial to bone health. Good nutrition fuels our bone health by providing our body with the necessary quantities of vitamins, calcium, and high quality proteins that are required to maintain bone and muscle strength. Calcium is a key nutrient for all age groups but the amount needed varies at different stages of life. Demands are particularly high during the rapid period of growth in teenagers. As well, when bone density is decreasing in later years, a calcium-rich diet helps us to maintain bone mineral density. This applies to men and women of all ages. Vitamin D has been found to be of particular importance to bone health. It is known, we raise awareness of the broad prevalence of vitamin D deficiency and recommend supplementation with vitamin D in all adults age 60 years and older for its proven reduction of falls and fractures. Notably, vitamin D plays a critical role in bone development in children and correlates positively with bone density in younger adults. Apart from its benefit on calcium uptake in the bowel, vitamin D has a direct effect on muscle. As sufficient vitamin D is not obtained from an otherwise healthy diet and direct daily sun exposure, which is the main stimulus from vitamin D production in the skin, is limited in most adults, supplementation should be considered.

Key words: Osteoporosis, Lifestyle Factors, Calcium, Vitamin D as Physical Activity.