

Definition of Osteoporosis

Normal bone is composed of a mixture of calcium and other minerals such as magnesium and phosphate. It is also made up of collagen (protein), which forms the structural framework of bone.

Osteoporosis is a condition, which results in loss of bone strength, thus making bone more fragile and easily susceptible to fracture. Osteoporosis occurs when there is a loss of mineral content from bone mainly in the form of calcium as well as architectural loss of normal bone structure. The loss of mineral content of the bone is referred to as a loss of bone mineral density in the bone.

It is a process that affects all individuals and is a part of normal aging. All individuals if they live long enough will develop osteoporosis. Some individuals due to various illnesses or as part of hormone deficiency states will develop osteoporosis at an earlier stage in their life. After menopause women are at an increased risk of osteoporosis.

In itself, osteoporosis causes no symptoms. It is when fractures occur that the problems of osteoporosis arise.

How common is osteoporosis?

- After the age of 60 years, 1 in 2 Australian women and 1 in 3 Australian men will sustain an osteoporotic fracture.
- Of all osteoporotic fractures in Australia, 46% are vertebral fractures, 16% are hip fractures and 16% are wrist fractures.
- Hip fractures are particularly problematic as there is evidence to suggest that 50% of elderly patients sustaining a hip fracture need subsequent long-term nursing care.
- There also is an increased risk of mortality associated with hip fractures with some figures indicating that 15% of hip fractures in the elderly lead to death within 4 months of the fracture.¹