

## • Osteoporosis & Osteoarthritis

Osteoporosis and osteoarthritis are very common chronic diseases in the middle aged and senior populations. Osteoporosis conditions include fragile bones which break very easily. If not prevented or left untreated, osteoporosis can progress painlessly until a bone breaks. A thin, small boned frame (or low bone mass), low physical activity and low calcium intake are also risk factors. People with lactose intolerance need to pay extra attention since their daily calcium intake does not meet their bodies' needs. By about age 20, the average woman has acquired 98 percent of her skeletal mass. Building strong bones during childhood and adolescence is one of the best defenses against developing osteoporosis later. Daily calcium intake requirements for the middle-aged and elderly are around 1200 to 1800 mg. If osteoporosis occurs, more calcium is needed.

Osteoarthritis (OA) is a degenerative joint disease that occurs as a result of breakdown of cartilage. Factors contributing to the onset of OA include the wear and tear of cartilage from aging, joint damage due to overuse or injuries, overpressure on joints due to obesity, and a genetic predisposition. Common symptoms of osteoarthritis include deformed joints, chronic pain, and stiffness. Appropriate exercise, swimming, weight control, and hot spa treatments have often been suggested to alleviate pain.

In addition, healthy bones and joints need strong muscle to support them; therefore, sufficient daily protein intake is essential. Daily protein intake requirements in grams are determined by either multiplying your body weight in kg × 0.8 OR by multiplying your body weight in pounds by 0.364.



The following are suggested nutraceutical supplements to provide the nutrients for your body to improve osteoporosis and osteoarthritis.

Nutrients	Research Findings
Glucosamine + Chondroitin	▶ Provide substrate for the formation of healthy joint matrix and may be a beneficial alternative therapy for osteoarthritis symptoms <sup>1</sup> .
Calcium + Vit D3 + Zinc, Magnesium + Soy protein	▶ Calcium, essential in protecting bone density and adequate vitamin D could help calcium to be absorbed by the body. Clinical study has suggested the use of vitamin D supplementation to enhance bone mineral density in osteoarthritis patients. <sup>2</sup>
Vit B Complex + Pumpkin seed	▶ Studies have reported positive results with the combined supplementation of vitamin E with vitamins B1, B6, and B12 in alleviating osteoarthritis symptoms. <sup>3</sup>
Ginkgo Biloba	▶ Animal studies have revealed ginkgo biloba exhibits potent anti-arthritis activity. <sup>4</sup>
Vitamin C	▶ Bone mineral density has shown improvement with Vitamin C supplementation, particularly in postmenopausal women taking both estrogen therapy and calcium supplements. <sup>5</sup>
Fish Oil	▶ Omega-3 polyunsaturated fatty acids may be an effective anti-inflammatory alternative for degenerative joint diseases. <sup>6</sup>

### References :

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