Simplesa OsteoGuard

KoACT™: KoACT™ is a patented molecule designed to improve bone health. KoACT™ is formed by the combination of calcium and collagen. Calcium is the primary mineral found in bone while collagen is the principal protein found in connective tissues. Research has demonstrated that the combined (chelated) form of both calcium and collagen increases bone density and the structures that support the bones. Therefore, KoACT™ has the potential to reduce the risk of bone fractures in at least three ways: by increasing the strength of bones, by improving flexibility and by decreasing the shock to bones while performing normal activities or exercise.

Fruitex-B™: Fruitex-B™, also known as calcium fructoborate, is the combination of two minerals (calcium and boron) and a sugar (fructose). Boron and calcium supplementation has been shown to increase the strength of bones. The combination with fructose presumably increases the body's ability to absorb the molecule, as calcium fructoborate (Fruitex-B™) has excellent absorption and bioavailability.

Magnesium, strontium and silicon: While calcium is the major mineral present in bone and is responsible for much of its structural integrity, magnesium, strontium and silicon are also critical for bone health. Over half of the body's magnesium is stored in the bones. Magnesium is critical for the development of bone, and deficiencies in magnesium can result in osteopenia and osteoporosis. Supplementation with magnesium can protect against these deficiencies. Observational clinical trials show that silicon consumption strongly correlates with bone density. In other words, people who tend to consume more silicon have stronger bones than those who consumed less silicon. Strontium not only helps prevent bone loss but also stimulates bone regeneration, making it an excellent supplement for those individuals who have already started to lose bone density.

Vitamin D3: Vitamin D3 is critical for the balance of calcium in the body, not only for calcium and bones but also how it is absorbed by the body (i.e., in the gastrointestinal tract). Rather alarming studies have shown three quarters of teens and adults in the United States are deficient in vitamin D. This can directly lead to increased incidence and prevalence of osteopenia, osteoporosis and bone fractures, as well as an increased risk of cognitive impairment, cancer and cardiovascular disease.

Ipriflavone: Estrogen has long been known to enhance bone density and strength. This is the major reason why women who go through menopause and lose circulating estrogen have a greatly increased risk of developing osteoporosis. Estrogen supplementation is associated with a number of unwanted side effects and cardiovascular risks. However, ipriflavone, a derivative of soy, can mimic the effects of estrogen without harmful side effects. Ipriflavone inhibits bone breakdown and stimulates bone cells (i.e., osteoblasts) to generate and strengthen bone.

Vitamin K2: Vitamin K2 (Menaquinone-7, or MK-7) is the active form of vitamin K, a vitamin best known for its role in blood clotting. Like vitamin D, substantial numbers of people may have vitamin K deficiency even though dietary deficiency was once considered quite rare. Vitamin K deficiency leads to osteoporosis and arterial calcification (part of atherosclerosis). Diets that are high in vitamin K are associated with a lower risk of bone fractures in aging adults, and supplementation with vitamin K2 appears to reduce the risk of bone fractures.

Synergistic effects: Bones are surprisingly metabolically active. Bone cells are constantly digesting and forming new bone. Over time, however, bone tends to be digested faster than it is formed. Deficiencies in vitamin D, calcium and other important vitamins and minerals can accelerate this deficiency. This leads to osteoporosis and bone fractures. Bone requires a constant and stable supply of various minerals including calcium, boron, strontium and magnesium. Deficiencies in any of these substances can weaken the bones. However, it is not enough to simply consume these minerals in appropriate quantities. Certain forms of calcium, such as calcium fructoborate and combinations of calcium and collagen, are superior to taking calcium supplements alone. These substances not

only strengthen the bone itself but the tissues that surround and support the bone.

Vitamins such as vitamin D and vitamin K are needed to ensure that important minerals make it from the gastrointestinal tract to the bloodstream and into bone. While estrogen helps strengthen and maintain bone, supplementation with estrogen causes harmful side effects in women and is inappropriate in men. However, ipriflavone can mimic the effects of estrogen without causing hormonal side effects.