

## Sunshine Heroes Calcium Plus D3

Stock #3343-1 (90 soft chews)



Sunshine Heroes Calcium Plus D3 is an important children's supplement that provides essential nutrients for the healthy growth and development of strong bones and teeth.

**Calcium** is essential for normal growth and development, as well as the maintenance of healthy bones and teeth in children. Calcium is also necessary for muscle function, nerve transmission, immune system maintenance, and cardiovascular health. Research shows that low calcium and vitamin D intakes in children and adolescents are associated with negative effects on bones and may limit statural growth (height). Low calcium intake is also linked to adiposity (fatty tissue gain), particularly in male adolescents. Children actually require higher calcium intake per body weight than adults. Data from the most recent National Health and Nutrition Examination Survey (NHANES) revealed that only 30% of the U.S. population 2 years of age and older obtain the recommended level of calcium. Calcium cannot be properly absorbed without adequate amounts of vitamin D. Calcium also requires phosphorus to function properly.<sup>1-7</sup>

**Vitamin D3** - Vitamin D is naturally produced in the skin following exposure to sunlight. Humans can also get vitamin D from some foods (namely fatty fish and liver) and dietary supplements. The most well-known function of vitamin D is to regulate calcium absorption and metabolism for bone health. Vitamin D promotes intestinal absorption of calcium and phosphorus and plays a central role in maintaining calcium homeostasis and skeletal integrity. In addition, new discoveries have revealed vitamin D's emerging significance in maintaining innate (or "natural") immunity and decreasing the risk of many chronic illnesses, including common cancers, autoimmune diseases, infectious diseases and cardiovascular disease. Several studies also suggest that vitamin D supplementation in children reduces the risk of Type 1 diabetes. During childhood, vitamin D deficiency can cause growth retardation, muscle weakness and skeletal deformities and may increase the risk of hip fracture later in life. Recent epidemiological studies also clearly demonstrate that vitamin D deficiency predisposes children to respiratory infections. Unfortunately, vitamin D deficiency is common in young and adolescent children worldwide, especially in children with limited sunlight exposure and in children of color—heavy melanin in dark-skinned people effectively blocks skin synthesis of vitamin D. Data from the 2001-2006 NHANES indicates that 6.3 million U.S. children (nearly 1 in 5), between the ages of 1 and 11, have blood levels of vitamin D lower than recommended by the American Academy of Pediatrics (AAP). To prevent vitamin D deficiency, the AAP has revised their guidelines and now recommends that all infants and children receive at least 400 IU of vitamin D per day from diet and supplements. Supplementation with as much as 2000 IU per day of vitamin D3 for one year was shown to be safe and well-tolerated in adolescents (10-17 years of age), with no evidence of vitamin D intoxication.<sup>1,8-18</sup>

**Phosphorus** is the second most abundant mineral in the body, following calcium. Sufficient levels of phosphorus are necessary for calcium to function properly, as calcium works with phosphorus to build and maintain healthy bones and teeth. Phosphorus also plays an important role in energy production, kidney function, cellular and tissue growth and repair, and the production of DNA and RNA (the genetic building blocks of life). Phosphorus absorption depends on sufficient calcium and vitamin D.<sup>19-21</sup>

Each serving of Sunshine Heroes Calcium Plus D3 provides 300mg of calcium, 300 IU of vitamin D3 and 140mg of phosphorus, in a base containing the Sunshine Heroes Protector Shield—a proprietary blend of whole foods, fruit juice concentrates, and beneficial micronutrients.

The Sunshine Heroes Protector Shield provides important antioxidants, vitamins, minerals and amino acids (the "building blocks" of protein), which promote healthy growth and development and a strong immune system. The Protector Shield contains:

*Whole Food Complex* (mangosteen, cranberry, broccoli, spinach, asparagus, carrot, tomato, açai and pomegranate) - These fruits and vegetables are rich sources of antioxidants, immune-boosting phytonutrients, minerals and vitamins, including vitamins A, B-Complex, C, E and K.

*Fruit Juice Concentrates* (white grape, apple, pear, orange, pineapple, cherry, strawberry, and blueberry) - This antioxidant-rich blend of fruit juices provides vitamin C, folic acid, potassium, and other nutrients that promote cardiovascular and immune health and help protect against certain cancers.

*Micronutrients Blend* (L-leucine, L-lysine, L-valine, Choline, Inositol, L-isoleucine, L-threonine, L-phenylalanine, L-arginine, L-cysteine, L-methionine, and L-tyrosine) - Amino acids are the building blocks of proteins necessary for

healthy growth and development and proper functioning of the central nervous system and brain. Choline and inositol are members of the B-complex vitamin and are necessary for healthy brain development, as well as cognitive (brain) and memory function.<sup>22</sup>

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