



## Collatrim Plus

Stock #3062-0 (326.5 grams)

Collatrim Plus is a unique protein supplement formulated to support the collagen structures of the body and help improve joint health. Collatrim Plus, as a rich source of protein, may also enhance skin health and tone, as well as facilitate weight management by promoting the growth of lean muscle tissue.

Collatrim Plus provides a rich source of protein derived from hydrolyzed bovine collagen. Protein supplements comprised of hydrolysates, or predigested proteins, supply amino acids in a form that is readily absorbed into the body's protein stores. Protein is required for a myriad of body functions, including the formation, maintenance and repair of blood, bone, muscle, skin, and internal organs, as well as the production of hormones and enzymes. Thus, protein deficiency can lead to numerous health problems, including fatigue and weakness, mental depression, lowered resistance to colds and infections, impaired wound healing, and loss of muscle and skin tone. Experimental and clinical data also indicate that low protein

intake negatively affects bone health—protein deficiency causes a rapid alteration in bone mass and strength and inhibits the synthesis of bone-matrix proteins, which can lead to decreased bone mineral density and the development of osteoporosis.<sup>1-8</sup>

**Collagen (hydrolyzed)** - Collagen is the most abundant protein in the body and is essential for maintaining the health and strength of connective tissues such as cartilage. Hydrolyzed collagen has been shown to have an anabolic (building-up) effect on cartilage tissue. Research indicates that orally ingested hydrolyzed collagen accumulates in cartilage and stimulates a statistically significant increase in the production of extracellular matrix components that form cartilage. A review of double-blind studies confirmed that hydrolyzed collagen can provide improvement in joint pain and function in some men and women with osteoarthritis. Results from a 6-month study found that hydrolyzed collagen provided statistically significant changes in various parameters of joint pain compared to placebo, and thus, may prove beneficial for supporting joint health in patients with osteoarthritis. Hydrolyzed collagen may also help reduce the risk of joint deterioration among high-risk individuals. In addition, hydrolyzed collagen has been shown to significantly decrease pain levels in patients with medically-diagnosed fibromyalgia and concurrent temporomandibular joint problems.<sup>3,9-15</sup>

Collagen makes up roughly 70-80% of the dry weight of skin and provides the skin's strength and structural integrity. Adequate protein intake is essential for skin health and proper wound healing. Thus, protein deficiency, which reduces collagen synthesis, can result in poor wound repair, as well as loss of muscle and skin tone. For example, a study on wound healing found that patients taking a hydrolyzed collagen supplement experienced approximately twice the rate of healing of pressure ulcers compared to those given a placebo.<sup>3,9,10,16-20</sup>

Furthermore, hydrolyzed collagen provides certain amino acids that may enhance the building of lean muscle mass and promote weight-loss. For example, the amino acid arginine enhances weight-loss and muscle building by promoting fat metabolism and the production of growth hormone—increasing growth hormone production in adults has been shown to enhance the breakdown of fat stores and the building and toning of muscle tissue. Likewise, the amino acid glycine has also been shown to stimulate the release of growth hormone, and, in conjunction with arginine, is utilized for the production of creatine—increasing levels of creatine in the body has been shown to improve lean muscle mass and strength and to reduce the degeneration of muscle tissue, which is characteristic of low-protein intake.<sup>4,6,21-28</sup>

Collatrim Plus also contains concentrated Aloe vera (*Aloe barbadensis*).

**Aloe vera** (*Aloe barbadensis*) supplies many nutrients, including vitamins C and E and the minerals calcium, silicon and zinc. These important nutrients are essential for the health and integrity of connective tissues. In fact, aloe vera has been shown to stimulate connective tissue and epidermal growth and repair, and has been used for decades, both internally and externally, to enhance wound healing and promote skin health.<sup>1,9,17</sup>

### References:

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