

# Innovative Collagen Hydrolysate

## (Enriched With Chondroitin, MSM & Herbs)

### Importance of Collagen Supplementation

Starting from the age of 25, our collagen level reduces at a rate of 1.5% every year as part of the aging process.<sup>[1-2]</sup> Collagen reduction in our body contributes to general body ache, pain in the joints and extension of recovery time from injury.<sup>[1-2]</sup> And by the age of 45, collagen level in our body will reduce by up to 30%.<sup>[1-2]</sup>

### Attributes of the Joint Nourishing Ingredients

**Collagen** is the main structural protein found in our body. It accounts for about 30% of all protein in our body and is essential for the growth and development of muscles, tendons and bones.<sup>[3-5]</sup> Collagen provides the strength and elasticity that our body tissues need and provides the ability to stretch and recoil.<sup>[3-5]</sup> Studies have shown that collagen hydrolysate can effectively replace the collagen that is lost through normal aging process.<sup>[7-8]</sup> Not only is this beneficial to our muscles and joints, it can also help to keep our skin, hair and nails healthy.<sup>[7-8]</sup>

**Chondroitin Sulphate** comes from natural resource, such as shark or bovine cartilage.<sup>[9-11]</sup> It is a major component of cartilage - the tough, connective tissue that cushions the joints.<sup>[9-11]</sup> Chondroitin helps to keep cartilage healthy by absorbing fluid (particularly water) into the connective tissue.<sup>[9-11]</sup> It may also block enzymes that break down cartilage, and provide the building blocks for the body to produce new cartilage.<sup>[9-11]</sup>

**Boswellia** is an Indian herb. Its natural extract comes from the gums and resins of *Boswellia serrata*.<sup>[12-13]</sup> *Boswellia* helps to remove toxin from the joints, support and increase the mobility of the joints, suppress underlying pain, reduce joint swells and stiffness.<sup>[12-13]</sup>

**MSM** (Methylsulfonylmethane) is an important source of organic sulfur required for development and maintenance of connective and other types of tissues.<sup>[13-15]</sup> MSM can help increase the strength and flexibility of our muscles, bones and joints.<sup>[13-17]</sup> MSM is also the vital component in the formation of keratin, collagen and elastin.<sup>[13-17]</sup> It benefits skin, hair and nails and has a beautifying effect on them. MSM smoothens the skin by its collagen building effect, strengthens hair and nails and accelerates hair growth.<sup>[13-15]</sup>

### Advance Technology in Hydrolyzed Collagen Production

By means of advance technology, the fine product resulting from bone and cartilage that has been broken down into small components that can collectively be referred to as hydrolyzed collagen. Through this technology, collagen can easily be absorbed throughout the body and rejuvenate our bones, joints and cartilage.

### A Natural Supplement

Collagen Hydrolysate Plus MSM is an outstanding nutritious supplement which contains hydrolyzed collagen, chondroitin, MSM and boswellia. It helps prevent joint pain or swelling and promote joint mobility and flexibility. It also helps increase elasticity of our skin and repair damaged hair.

### Beneficial effects of Collagen Hydrolysate Plus MSM include:

- reduce risk of joint pain and swelling<sup>[7,10-17]</sup>
- promote cartilage formation in joints<sup>[7,10-17]</sup>
- maintain healthy cartilage and supplement synovial fluid<sup>[7,10-17]</sup>
- help regulate skin tone and firmness<sup>[6]</sup>
- reduce cellulite<sup>[18]</sup>
- reduce fine lines, wrinkles, stretch marks and scars<sup>[19]</sup>
- strengthen hair and nails<sup>[13-15]</sup>

### Recommended daily dose:

Adult: Take 1 tablet 2 times daily. Use lukewarm water to avoid damaging the structure of collagen.

### References:

1. Hall DA. The pathophysiology of ageing collagen. Proc R Soc Med. 1976; 69(12): 923-4.
2. Moriguchi T, Fujimoto D. Age-related changes in the content of the collagen crosslink, pyridinoline. J Biochem. 1978;84(4):933-5.
3. Di Lullo GA, Sweeney SM, Korkko J, Ala-Kokko L, San Antonio JD. Mapping the ligand-binding sites and disease-associated mutations on the most abundant protein in the human, type I collagen. J Biol Chem. 2002;277(6):4223-31.
4. Lodish H, Berk A, Zipursky SL, Matsudaira P, Baltimore D, Darnell J. Collagen: The Fibrous Proteins of the Matrix. Molecular Cell Biology (4th ed). New York: W. H. Freeman; 2000.
5. Bailey AJ, Paul RG, Knott L. Mechanisms of maturation and ageing of collagen. Mech Ageing Dev. 1998;106(1-2):1-56.
6. Baumann L. Skin ageing and its treatment. J Pathol. 2007;211(2):241-51.
7. Zague V, de Freitas V, da Costa Rosa M, de Castro GA, Jaeger RG, Machado-Santelli GM. Collagen hydrolysate intake increases skin collagen expression and suppresses matrix metalloproteinase 2 activity. J Med Food. 2011; 14(6):618-24.
8. Liang J, Pei X, Zhang Z, Wang N, Wang J, Li Y. The protective effects of long-term oral administration of marine collagen hydrolysate from chum salmon on collagen matrix homeostasis in the chronological aged skin of Sprague-Dawley male rats. J Food Sci. 2010;75(8):H230-8.
9. Chai HJ, Li JH, Huang HN, Li TL, Chan YL, Shiao CY, Wu CJ. Effects of sizes and conformations of fish-scale collagen peptides on facial skin qualities and transdermal penetration efficiency. J Biomed Biotechnol. 2010 June 8, doi: 10.1155/2010/757301.
10. MONOGRAPHS Chondroitin Sulfates. Altern Med Rev. 2006;10(4):338-43.
11. Gregory PJ, Sperry M, Wilson AF. Dietary supplements for osteoarthritis. Am Fam Physician. 2008; 77(2): 177-84.
12. Gupta PK, Samarakoon SM, Chandola HM, Ravishankar B. Clinical evaluation of *Boswellia serrata* (Shallaki) resin in the management of Sandhivata (osteoarthritis). Ayu. 2011;32(4):478-82.
13. We SR, Jeong EO, Koog YH, Min BI. Effects of nutraceuticals on knee osteoarthritis: Systematic review. Afr J Biotechnol. 2012;11(12):2814-21.
14. MONOGRAPHS Methylsulfonylmethane (MSM). Altern Med Rev. 2003; 8(4):438-41.
15. Roth RA, Townsend CE. Sulfur (MSM) – A Basic Essential Nutrient Needed Now, More than Ever Before. Nutrition & Diet Therapy (8th ed). New York: Academic Press; 2003.
16. Debbi EM, Agar G, Fichman G, Ziv YB, Kardosh R et al. Efficacy of methylsulfonylmethane supplementation on osteoarthritis of the knee: a randomized controlled study. BMC Complement Altern Med. 2011;11:50.
17. Magrans-Courtney T, Wilborn C, Rasmussen C, Ferreira M, Greenwood L et al. Effects of diet type and supplementation of glucosamine, chondroitin, and MSM on body composition, functional status, and markers of health in women with knee osteoarthritis initiating a resistance-based exercise and weight loss program. J Int Soc Sports Nutr. 2011;8:8.
18. Rawlings AV. Cellulite and its treatment. Int J Cosmet Sci. 2006;28(3):175-90.
19. Bauza E, Oberto G, Berghi A, Dal CF, Domloge N. Collagen-like peptide exhibits a remarkable antiwrinkle effect on the skin when topically applied: in vivo study. Int J Tissue React. 2004;26(3-4):105-11.

Disclaimer: This product is not registered under the Pharmacy and Poisons Ordinance or the Chinese Medicine Ordinance. Any claim made for it has not been subject to evaluation for such registration. This product is not intended to diagnose, treat or prevent any disease.

免責聲明：此產品沒有根據《藥劑業及毒藥條例》或《中醫藥條例》註冊。為此產品作出的任何聲稱亦沒有為進行該等註冊而接受審核。此產品並不供作診斷、治療或預防任何疾病之用。