Levigor®
樂維加

Glucosamine + Chondroitin

勁骨寶關節軟骨補充劑

Strengthen Your body today, Active future.

Glucosamine, Chondroitin and Bioflavonoids

Glucosamine is an amino sugar which exists in articular cartilage and other connective tissues as proteoglycans.[1,2] Proteoglycans viscoelastic property keeps large amount of water in cartilage, reduces friction and absorbs shock.[3-5,25] Glucosamine is important for maintaining the elasticity, strength and resiliency of the cartilage in joints. Clinically proven, administration of glucosamine stimulates collagen production and rebuilding of damaged cartilage. In addition to supporting cartilage, glucosamine enhances both the production of hyaluronic acid and its anti-inflammatory action.[25]

Chondroitin is one of the natural glycosaminglycans that is synthesized endogenously and secreted by the chondrocytes, constituents most of the cartilaginous tissues.[24] Chondroitin absorbs water, adds thickness and elasticity of cartilage and enhances its ability to absorb compressive forces. It also controls the formation of new cartilage matrix, by stimulating chondrocyte metabolism and synthesis of collagen and proteoglycan. Chondroitin reduces cartilage destruction and maintains joint function by inhibiting degradative enzymes which break down cartilage matrix and synovial fluid.[24,25]

Bioflavonoids (Citrus Bioflavonoids or Vitamin P) work with other antioxidants to scavenge free radicals and protect body tissues.[25] Bioflavonoids are used in the sports injuries and osteoarthritis as they could help to relieve pain and improve joint mobility.[25] Bioflavonoids may be active in preserving the structures of capillaries, have an antibacterial effect and promote circulation.[25]

Articular Cartilage as Bumper for the Joints

Although glucosamine and chondroitin can be synthesized by the body, their production declines with age.[24] Damage and erosion of articular cartilage results in pain and reduced mobility. Glucosamine plus Chondroitin provides necessary components for chondroprotective action and maintains healthy joints.[24]

Cartilage provides a low-friction surface that covers the ends of the bones.[1] It has viscoelastic properties that provide lubrication during motion, shock absorbency, and load support.[1,5-7] Maintaining normal and healthy articular cartilage will enable smooth joint movement, prevent damage of bone by friction and weight, and stabilize position of bones and joints.

Excellent Choice for Joints

Cartilage is mainly composed of water, which its level decreases with age. About 85% of cartilage is water in young people, while it drops to about 70% water in older people.[8] With decrease of water content, the cartilage becomes harder and it restraints joint movement.[1,6,8]

Osteoarthritis is a structural and functional failure of synovial joints, resulting in wearing of the ends of the bones. It is characterized by loss and erosion of articular cartilage, mild to moderate synovial inflammation, and outgrowth of bone and cartilage at the joint margins (osteophytes). These changes could result in pain, stiffness (especially after inactivity) and reduced mobility. The joints most often affected are hands, hips, and knees.[24]

Conventional anti-inflammatory drugs and pain-killer very often irritate the stomach, leading to gastrointestinal discomfort and lack of appetite. In contrast, Glucosamine plus Chondroitin are natural and neutral and would not cause disturbances to the stomach. They are the optimal choice for joint health.[12, 24]

Common Joint Problems:

- Osteoporosis [15]
- Adhesive capsulitis [16]
- Hip osteoarthritis [2,3,6,9,14]
- Sport injuries and ligament inflammation [7-9]
- Lumbar spine dislocation [8]
- Degeneration of spinal column, vertebral bone and knee canopy [8]
- Stiff and pain of joint [1-4,7-17,19]
- Rheumatoid arthritis [20]
- Inflammation of fingers and wrists [4,16]
- Joint pain due to over-working [6,7]
- Varicose veins [18]

Significant effects observed for continued intake of 3 to 6 months or above [24-25]:

- Relieve pain, inflammation and swelling
- Enhance recovery of articular cartilage and slow down cartilage degeneration
- Decrease osteophyte
- Supplement for synovial fluid
- Strengthen the flexibility of joints
- Enhance walking ability
- Promote wound healing
- Promote blood circulation

Recommended daily dose:

Adults take one capsule 3 times daily or recommended by a physician.

References:

1. McDevitt CA. Biochemistry of articular cartilage – Nature of proteoglycans and collagen of articular cartilage and their role in ageing and in osteoarthrosis. Ann Rheum Dis. 1973;32(4):364-78.
2. Glucosamine Sulfate. Natural Medicines Comprehensive Database.
3. Chondroitin Sulfate. Natural Medicines Comprehensive Database.
4. Henrotin Y, Mathy M, Sanchez C, Lambert C. Chondroitin sulfate in the treatment of osteoarthritis: from in vitro studies to clinical recommendations. Ther Adv Musculoskel Dis. 2010;2(6):335-48.
5. Comper WD, Lyons KC. Non-electrostatic factors govern the hydrodynamic properties of articular cartilage proteoglycan. Biochem J. 1993;289(Pt 2):543-7.
6. Wright V, Dowson D. Lubrication and cartilage. J Anat. 1976;121(Pt 1):107-18.
7. Blewis ME, Nugent-Derfus GE, Schmidt TA, Schumacher BL, Sah RL. A model of synovial fluid lubricant composition in normal and injured joints. Eur Cell Mater. 2007;13:26-39.
8. Antoniou J, Steffen T, Nelson F, Winterbottom N, Hollander AP et al. The human lumbar intervertebral disc: evidence for changes in the biosynthesis and denaturation of the extracellular matrix with growth, maturation, ageing, and degeneration. J Clin Invest. 1996;98(4):996-1003.
9. Treatment of Primary and Secondary Osteoarthritis of the Knee. Rockville (MD): Agency for Healthcare Research and Quality (US); 2007 Sep. (Evidence Reports/Technology Assessments, No. 157)
10. Simoens S, Laekeman G. Pharmacotherapeutic aspects of treating knee osteoarthritis with glucosamine sulfate. Health. 2010;2(7):705-7.
11. Reginster JY, Deroisy R, Rovati LC, Lee RL, Lejeune E et al. Long-term effects of glucosamine sulphate on osteoarthritis progression: a randomized, placebo-controlled clinical trial. Lancet. 2001;357(9252):251-6.
12. Sawitzke AD, Shi H, Finco MF, Dunlop DD, Harris CL et al. Clinical efficacy and safety of glucosamine, chondroitin sulphate, their combination, celecoxib or placebo taken to treat osteoarthritis of the knee: 2-year results from GAIT. Ann Rheum Dis. 2010;69(8):1459-64.
13. Wildi LM, Raynauld JP, Martel-Pelletier J, Beaulieu A, Bessette L et al. Chondroitin sulphate reduces both cartilage volume loss and bone marrow lesions in knee osteoarthritis patients starting as early as 6 months after initiation of therapy: a randomised, double-blind, placebo-controlled pilot study using MRI. Ann Rheum Dis. 2011;70(6):982-9.
14. Jordan KM, Arden NK, Doherty M, Bannwarth B, Bijlsma JW et al. EULAR Recommendations 2003: a evidence based approach to the management of knee osteoarthritis: Report of a Task Force of the Standing Committee for International Clinical Studies Including Therapeutic Trials (ESCISIT).Ann Rheum Dis. 2003;62(12):1145-55.
15. Aam BB, Heggset EB, Norberg AL, Sørlie M, Vårum KM, Eijsink VG. Production of chitooligosaccharides and their potential applications in medicine. Mar Drugs. 2010;8(5):1482-517.
16. Garcilazo C, Cavallasca JA, Musuruana JL. Shoulder manifestations of diabetes mellitus.Curr Diabetes Rev. 2010;6(5):334-40.
17. MacKay D, Miller AL. Nutritional support for wound healing. Altern Med Rev. 2003;8(4):359-77.
18. Drubaix I, Robert L, Maraval M, Robert AM. Synthesis of glycoconjugates by human diseased veins: modulation by procyanidolic oligomers. Int J Exp Pathol. 1997;78(2):117-21.
19. Efficacy of Glucosamine and Chondroitin Sulfate May Depend on Level of Osteoarthritis Pain, NIH News, National Instituted of Health, Embargoed For Release, Feb 22, 2006.
20. Nakamura H, Masuko K, Yudoh K, Kato T, Kamada T, Kawahara T. Effects of glucosamine administration on patients with rheumatoid arthritis. Rheumatol Int. 2007;27(3):213-8.
21. Ivanovska N, Dimitrova P. Bone resorption and remodeling in murine collagenase-induced osteoarthritis after administration of glucosamine. Arthritis Res Ther. 2011 Mar 16;13(2):R44.
22. Reginster JY, Bruyere O, Neuprez A. Current role of glucosamine in the treatment of osteoarthritis. Rheumatology (Oxford) 2007;46(5): 731-5.
23. Pavelka K, Gatterova J, Olejarova M, et al. Glucosamine sulfate use and delay of progression of knee osteoarthritis: a 3-year, randomized, placebo-controlled, double-blind study. Arch Intern Med. 2002;162:2113-23.
24. Martindale: the complete drug reference. London, UK, Pharmaceutical Press.
25. Dietary Supplements: the complete drug reference. London, UK, Pharmaceutical Press.

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