



MSM / Glucosamine Cream

Stock #3522-4 (2 oz.)

MSM/Glucosamine Cream is a nutritional lotion designed to support the integrity of connective tissues and joint cartilage and improve skin health and appearance. Research shows that both active ingredients help relieve symptoms associated with degenerative joint disease and connective tissue damage. In addition, MSM/Glucosamine Cream employs a patented liposome delivery system that facilitates the prolonged release and deep penetration of active ingredients to affected areas, providing a longer-lasting effect without skin irritation. Thus, MSM/Glucosamine Cream can be safely used for a variety of skin problems and for aching, swollen joints.

MSM/Glucosamine Cream provides 4% glucosamine sulfate and 2% MSM, in a naturally-derived, greaseless cream base that is fragrance-free and contains no artificial colors. MSM/Glucosamine Cream has not been tested on animals.

MSM (methylsulfonylmethane) is a naturally-occurring source of organic sulfur found in most raw, unprocessed foods such as fresh fruits and vegetables. Found in virtually every cell in the body, MSM plays a role in nearly all bodily functions; however, preliminary studies show levels of MSM decline with age. MSM is necessary for manufacturing important enzymes, antibodies, glutathione (an essential antioxidant), and connective tissue, including cartilage, collagen, hair, nails and skin—the highest concentrations of organic sulfur in the body are found in the joints, nails, hair and skin. MSM also assists in the formation of amino acids—the building blocks of protein—particularly the sulfur-containing amino acids cysteine and methionine. A deficiency of MSM and other sulfur compounds contributes to the degeneration of protein structures in the body, especially connective tissues, which can lead to a variety of debilitating disorders—sulfur inhibits various enzymes that contribute to cartilage breakdown in osteoarthritis. Thus, sulfur deficiency appears to be a prominent factor in the development of degenerative forms of arthritis.¹⁻⁸

MSM has been documented as a promising treatment for numerous health problems, including allergies, arthritis, some vascular conditions and wound healing (especially when combined with vitamin C intake). Skin problems, including irritated and itching skin, scar tissue and sunburn, have also responded favorably, since MSM facilitates collagen formation to promote faster healing and production of new skin. Sulfur-containing products have even been found to be an effective natural treatment for acne.^{2,3,7,9-11}

MSM is perhaps best-known for its ability to promote healthy, flexible cells and its effectiveness for relieving pain associated with systemic inflammatory conditions such as arthritis. The flexibility of healthy cell walls enables toxic substances like lactic acid to flow out for elimination, while also allowing essential nutrients to flow in. However, a deficiency of MSM leaves cell walls rigid and impermeable, thus causing a buildup of toxic fluids within the cells that leads to inflammation. This same mechanism also applies to inflammation associated with muscle soreness, leg cramps, and postathletic fatigue syndrome. Not surprisingly, arthritis sufferers have been found to have lower levels of sulfur and sulfur compounds than healthy control subjects. Clinical data as early as the 1930's reported that by increasing body levels of sulfur, pain and swelling were eliminated.^{5,7,10}

Glucosamine occurs naturally in the body to stimulate the production of connective tissue (the primary ingredient that makes up cartilage) in the joints. Glucosamine provides cartilage with its structure, strength and resiliency. It is also necessary for repairing and rebuilding damaged cartilage. Scientists believe that glucosamine works by stimulating the biosynthesis of compounds needed to form proteoglycans, substances that create the structural matrix of joints. In addition, glucosamine provides some anti-inflammatory activity and helps repair damaged cartilage tissue—before-and-after electron micrographs have proven that glucosamine helps restore damaged cartilage to a nearly healthy state.^{7,9,12-14}

Numerous studies show that glucosamine provides a higher degree of relieve from pain, joint tenderness and swelling than NSAIDs (nonsteroidal anti-inflammatories, i.e. aspirin, ibuprofen). In addition, unlike NSAIDs, glucosamine has an extremely low rate of toxicity and causes no significant side effects. Although mild stomach upset or nausea has been infrequently reported with oral glucosamine use, the onset of such effects are significantly associated with pre-existing gastrointestinal disorders. Furthermore, both animal and human studies indicate that glucosamine not only effectively controls pain, but also helps slow or reverse the progression of joint degeneration. In contrast, research confirms that NSAIDs inhibit cartilage repair and actually promote osteoarthritis.^{9,12,14-16}

Research indicates that glucosamine is also beneficial for promoting swifter wound healing and reducing complications related to scarring. In fact, glucosamine may be helpful in the treatment inflammatory skin disorders such as psoriasis.¹²

References:

- 1 Richmond, V. "Incorporation of methylsulfonylmethane sulfur into guinea pig serum proteins." *Life Sciences*; 1986, 39(3), 263-268.
- 2 Mindell PhD, E. *Earl Mindell's Supplement Bible*. NY, NY: Fireside Books, 1998.
- 3 Cochran, C. and Dent, R. "Cetyl Myristoleate - A Unique Natural Compound Valuable in Arthritis Conditions." *Townsend Newsletter for Doctors & Patients*; July 1997.
- 4 Bergner, P. *The Healing Power of Minerals, Special Nutrients & Trace Elements*. Rocklin, CA: Prima, 1997.
- 5 Dunne, Lavon J. *Nutrition Almanac*—3rd Edition. NY, NY: McGraw-Hill Publishing, 1990.
- 6 Jacob, S. and Herschler, R. "Introductory Remarks: Dimethylsulfoxide After Twenty Years." *Annals of the New York Academy of Sciences*, 1983.
- 7 Mindell PhD, E. *The MSM Miracle*. New Canaan, CT: Keats Publishing, 1997.
- 8 Murray ND, M. "Which is better—glucosamine sulfate or chondroitin sulfate?" *American Journal of Natural Medicine*; 1997, 4(4): 6-8.
- 9 Mindell PhD, E. & Hopkins, V. *Prescription Alternatives*. New Canaan, CT: Keats Publishing, 1998.
- 10 Murray, M. & Pizzorno, J. *Encyclopedia of Natural Medicine*. Rocklin, CA: Prima, 1998.
- 11 Hendler MD, PhD, S. *The Doctor's Vitamin and Mineral Encyclopedia*. NY, NY: Fireside, 1990.
- 12 Sahelian MD, R. *All About Glucosamine & Chondroitin*. Garden City Park, NY: Avery, 1998.
- 13 Saul MD, D. "Newer Treatments For Fibromyalgia Pain." *International Journal of Integrative Medicine*; 1999, 1(3): 27-32.
- 14 "Monograph: Glucosamine sulfate." *Alternative Medicine Review*; 1999, 4(3): 193-195.
- 15 Tapadinhas, MJ, et. al. "Oral glucosamine sulphate in the management of arthrosis: report on a multi-centre open investigation in Portugal." *Pharmatherapeutica*; 1982, 3(3): 157-168.
- 16 Murray ND, M. "Osteoarthritis: Contrasting NSAIDs vs. the natural approach featuring glucosamine sulfate." *Clinical Applications of Natural Medicine: A Conference for Healthcare Professionals*, 1997.