MSM

Methylsulfonylmethane

(Hypoallergenic)

Item # 72850
Available in bottles of 150 capsules

The Possible Benefits of MSM, a Dietary Supplement

- Provides a rich source of bioavailable sulfur, which supports the formation of important nutritional elements including glutathione, cysteine, and methionine
- Supports the formation of healthy connective tissue
- May enhance the mucosal membranes, and help normalize adverse reactions

Description

Methylsulfonylmethane, or MSM, is a water-soluble, solid compound, also known as dimethyl sulfone. It is a direct metabolite of dimethylsulfoxide (DMSO), and is sometimes called $DMSO_2$.

MSM is a source of biological sulfur, which is a major component in many of the body's proteins, tissues, hormones and enzymes. Sulfur is plentiful in all living organisms; about 2% of the dry weight of most animals is sulfur. Through the formation of disulfide bonds, sulfur is the foundation for proper conformation of extracellular body proteins, holding connective tissue together as well as maintaining the 3D structure of antibodies and hormones. Large amounts of sulfur are found in hair and nails, and sulfur plays a role in the detoxification of the liver. Intracellular sulfhydryl (thiol) groups are also vital for the catalytic function of many enzymes.

MSM and its related compounds provide most of the body's sulfur. Organic sulfides, sulfonium salts and MSM can provide sulfur to the amino acids cysteine and methionine. Cysteine sulfur is used in the synthesis of other sulfur-containing molecules, such as taurine, coenzyme A and glutathione. Research has demonstrated that MSM is a good source of sulfur: sulfur from orally ingested MSM was incorporated into cysteine and methionine, and it has been tracked through absorption and across the blood-brain barrier.

Research suggests that MSM may help regulate inflammation, which may benefit people with all types of arthritis, and help in the management of pain. It has an inhibitory effect on abnormal cross-linking of collagen, which can support formation of healthy connective tissue, retention of cartilage and reduction of scar tissue. It enhances mucosal membranes and may benefit conditions involving unfriendly microbes, or allergens causing adverse reactions. Anecdotal reports indicate

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MSM may offer some benefit for sufferers from allergies, asthma, constipation, bladder inflammation and lupus.

MSM is found in low concentrations in meats, fruits, vegetables, milk and some grains. MSM has also been found in certain herbs, including horsetail (*Equisetum arvense*). Although MSM occurs in most unprocessed foods, it is readily lost due to its volatile nature. Only a diet composed of mainly raw foods is likely to provide sufficient MSM to significantly contribute to the nutritional sulfur requirement. MSM supplementation can provide a normal dietary source of sulfur.

Due to its inert nature, MSM is non-allergenic, non-pyretic, and seems to have minimal undesirable effects. Long term usage or high doses of MSM encourage urinary excretion of molybdenum. For that reason, we have added molybdenum to our MSM formula.

Each capsule contains:	Methylsulfonylmethane	500 mg
	Molybdenum (as Sodium Molybdate)	10 mcg
Other ingredients:	Cellulose, silicon dioxide, stearic acid.	
Suggested Use:	As a dietary supplement, 1 to 3 capsules one to five times daily, or as directed by a healthcare practitioner.	

References

Childs SJ. Dimethyl sulfone (DMSO2) in the treatment of interstitial cystitis. Urol Clin North Am. 1994; 21:85-98.

Hess WC, Sullivan MS. Cystine Content in Fingernails in Arthritics. Journal of Bone Joint Surgery. 1935;16:185-88.

Jacob SW, et al. The Miracle of MSM: The Natural Solution for Pain. New York: G.P. Putnam's Sons; 1999:57-58.

Kandorf H, Chirra AR, De Gruccio A, Girman DJ. Dimethyl sulfoxide modulation of diabetes onset in NOD mice. Diabetes. 1989; 38:194-197.

Kocsis JJ, Harkaway S, Snyder R. Biological effects of the metabolites of dimethyl sulfoxide. Ann NY Acad Sci. 1975; 243:104-109.

Layman DL. Growth inhibitory effects of dimethyl sulfoxide and dimethyl sulfone on vascular smooth muscle and endothelial cells in vitro. In Vitro Cell Dev Biol. 1987; 23:422-428.

Morton JI, Siegel BV. Effects of oral dimethyl sulfoxide and dimethyl sulfone on murine autoimmune lymphoproliferative disease. Proc Soc Exp Biol Med. 1986; 183; 227-230.

O'Dwyer PJ, McCabe DP, Sickle-Santanello BJ, et al. Use of polar solvents in chemoprevention of 1, 2-dimethylhydrazine-induced colon cancer. Cancer. 1988; 62:944-948.

Pearson TW, Dawson HJ, Lackey HB. Natural occurring levels of dimethyl sulfoxide in selected fruits, vegetables, grains and beverages. J Agric Food Chem. 1989; 29:1089-1091.

Richmond VL, Incorporation of methylsulfonylmethane sulfur into guinea pig serum proteins. Life Sci. 1986; 39:263-268.

Rizzo R. Calcium, Sulfur and Zinc Distribution in Normal and Arthritic Articular Equine Cartilage: A Syncrotron Radiation Induced X-ray Emission Study. Journal of Experimental Zoology. Sep1995;237(1):82-86.

Rose SE, Chalk JB, Galloway GJ, Doddrell DM. Detection of dimethyl sulfone in the human brain by in vivo proton magnetic resonance spectroscopy. Magn Reson Imaging. 2000; 18:95-98.

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