

Methyl Sulfonyl Methane, MSM

Methylsulfonylmethane (MSM) is a naturally occurring, organic, sulfur-containing compound related to another sulfur-containing substance, dimethyl sulfoxide (DMSO). MSM is found in small amounts throughout nature and has been detected in small amounts in the blood and urine of humans.

Animal studies have shown that sulfur from oral supplements of MSM is incorporated into body proteins. Animal studies have also reported that joints affected by osteoarthritis (OA) have lower sulfur content, and mice with arthritis given MSM, experience less joint deterioration. According to a preliminary report, a double-blind trial in people with OA found that MSM, in the amount of 2,250 mg per day, reduced pain after six weeks.

Where is it found?

A precursor of MSM is formed initially by ocean plankton and released into the atmosphere, where it interacts with ozone and sunlight and returns to earth as MSM in rainfall. MSM can be taken up by plants and incorporated into their structure, but no measurement of the MSM content of foods has been done. Supplements containing MSM are available.

MSM (Methyl Sulfonyl Methane) can help with the following:

Allergy

Allergic Rhinitis / Hay Fever Symptoms of pollen allergy may be reduced with MSM supplements. Dr. Stanley Jacobs, author of *The Miracle of MSM* admits that he does not understand why MSM would help relieve allergies, but he suspects that MSM blocks cell receptor sites for histamine, which triggers allergic symptoms. It is best taken in the evening, a couple of grams per day, perhaps more when the pollen count is high.

Autoimmune

Lupus, SLE (Systemic Lupus Erythromatosis) "MSM has been shown to be clinically helpful in lupus and may be beneficial in other autoimmune disorders as well." [Stanley W. Jacob, M.D.]

Crohn's Disease

Ulcerative Colitis Some doctors have reported reduced pain with the use of MSM.

Digestion

Constipation Some patients with chronic constipation have experienced continuing relief with a daily supplement of 100-500mg of MSM. The effect appears particularly strong in those who are older.

IBS (Irritable Bowel Syndrome)

Heartburn / GERD Doctors using MSM agree that patients who have used antacids and histamine receptor antagonists to control hyperacidity can employ MSM with good results.

Drug Side-Effects

(Prescription) Drug Side-Effects Patients demonstrating drug hypersensitivity to aspirin, several nonsteroid antiarthritic agents (Naprosin, Indocin, Motrin), and oral antibiotics, became drug-tolerant when MSM was given within an hour of or concurrently with the sensitizing drug.

Environment / Toxicity

Mercury Toxicity (Amalgam Illness) Mobilization AND excretion are required for mercury detoxification. Consuming foods high in sulfur such as garlic, onions, beans, and eggs or supplemental sulfur in the form of MSM can help move mercury around but it is only bound loosely and caution is advised. There have been reported cases of reversible cataract development from individuals mobilizing mercury without excreting it. Consult a qualified doctor for a detoxification protocol appropriate for you.

Immunity

Chronic Fatigue / Fibromyalgia Syndrome According to Dr. Stanley Jacobs, MD, MSM can be helpful in most musculoskeletal pain and inflammation conditions, including fibromyalgia.

Infections

Conjunctivitis MSM eye drops used frequently may help in cases of mild conjunctivitis. It should not be used as a substitute for antibiotics for serious infection.

Shingles (Herpes Zoster)

Inflammation

Bursitis

Tendonitis Natural agents that have been used in tendonitis include MSM orally for pain relief.

Musculo-Skeletal

Osteoarthritis Research at the UCLA School of Medicine found an 82% reduction in pain after 6 weeks of MSM use in a double-blind study on degenerative arthritis. The study lasted 4 months and involved 16 patients on about 2gm MSM per day; 10 patients on MSM and 6 on placebo. After only 6 weeks, those patients using the MSM experienced better than 80% control of their pain, while those on the placebo experienced 18% improvement. [Federation of American Societies for Experimental Biology, 69th Annual Meeting, Apr. 21-26, 1985, p.692]

Carpal Tunnel Syndrome According to Dr. Stanley Jacobs, MD, MSM can be helpful in most musculoskeletal pain and inflammatory conditions, such as Carpal Tunnel Syndrome.

Rheumatoid Arthritis The reason why MSM is beneficial against arthritis is unclear. It may be because of its sulfur content, or because of its anti-inflammatory and analgesic properties. Unlike aspirin, which offers immediate pain relief, MSM takes 3 to 4 weeks before it produces noticeable change, except in rheumatoid patients who have been known to feel differences in just one day, and almost always within 3 to 4 days.

In an animal study on rheumatoid arthritis-like joint degeneration, MSM was effective in reducing joint inflammation, and completely prevented the breakdown of cartilage. According to Dr. Stanley Jacobs, MD, MSM can be helpful in most musculoskeletal pain and inflammation, including rheumatoid arthritis.

Muscle Pains (Myalgia)

Gout / Hyperuricemia According to Dr. Stanley Jacobs, MD, MSM can be helpful in most musculoskeletal pain and inflammation, including gout.

Nervous System

Bell's Palsy MSM, an organic form of sulfur, is reported to be of benefit in reducing pain associated with Bell's Palsy.

Respiratory

Problems Associated With Snoring Research at Oregon Health Sciences University on 35 subjects suffering from chronic snoring has shown that MSM in a 16% water solution administered to each nostril 15 minutes prior to sleep provided significant reduction in 80% of the subjects after 1 to 4 days of use. As a control, a saline solution was substituted for MSM in 8 of the patients who showed relief with MSM, without their knowledge. 7 of these 8 patients resumed loud snoring. This change occurred within 24 hours of the substitution. After the MSM treatment was restored, these 8 showed a significant reduction of snoring again.

Uro-Genital

Interstitial Cystitis Stacy J. Childs, MD, of the University of Alabama, Tuscaloosa, recently described 6 patients with interstitial cystitis who benefited from MSM.

Vaginitis/Vaginal Infection Oregon Health Sciences University researchers have found that MSM has anti-parasitic properties against trichomonas.

References

1. Jacob SW, Herschler R. Dimethyl sulfoxide after twenty years. *Ann N Y Acad Sci.* 1983;411:xiii–xvii.
2. Richmond VL. Incorporation of methylsulfonylmethane sulfur into guinea pig serum proteins. *Life Sci* 1986;39:263–8.
3. Rizzo R, Grandolfo M, Godeas C, et al. Calcium, sulfur, and zinc distribution in normal and arthritic articular equine cartilage: a synchrotron radiation-induced X-ray emission (SRIXE) study. *J Exp Zool* 1995;273:82–6.
4. Murav'ev IuV, Venikova MS, Pleskovskaia GN, et al. Effect of dimethyl sulfoxide and dimethyl sulfone on a destructive process in the joints of mice with spontaneous arthritis. *Patol Fiziol Eksp Ter* 1991;2:37–9 [in Russian].
5. Lawrence RM. Methylsulfonylmethane (MSM): a double-blind study of its use in degenerative arthritis. *Int J of Anti-Aging Med* 1998;1:50.
6. Jacob SW, Herschler R. Dimethyl sulfoxide after twenty years. *Ann N Y Acad Sci.* 1983;411:xiii–xvii.
7. Jacob SW. Oregon Health Sciences University, Portland, Oregon. Unpublished communication.
8. 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;18:95–8.