



MSM (METHYL-SULFONYL-METHANE)

Relieves joint pain

“How do you spell pain relief? These days, more and more people are spelling it M-S-M. MSM is a nutritional supplement rapidly establishing a reputation as a safe, natural and effective solution for many types of pain and inflammatory conditions, including: degenerative wear-and-tear arthritis, rheumatoid arthritis, chronic back pain, chronic headaches, muscle pain, fibromyalgia, tendinitis and bursitis, carpal tunnel syndrome, TMJ, post-traumatic pain and inflammation, heartburn” (Jacob, *et al*).

WHAT IS MSM?

MSM, short for methyl-sulfonyl-methane, is a naturally-occurring organic source of sulphur that is found in the human body, as well as in a number of foods. As a supplement, MSM is a powerful, yet non-toxic, therapeutic agent that may help to inhibit pain impulses, lessen inflammation, increase blood supply, reduce muscle spasms and soften scar tissue. When Dr. Stanley Jacob, the world's leading DMSO researcher, heated DMSO, he discovered a white, crystalline powder that had none of the unpleasant smell of DMSO. While they are chemically related, DMSO and MSM are unique compounds that cannot be compared. MSM is a dietary supplement that should not be confused with sulfites (to which many people are allergic) or sulfa drugs.

WHAT DOES SULPHUR DO IN OUR BODY?

- Without sulphur there would be no life. We don't think much about what sulphur does in our body, but it is essential in human nutrition, and is an element in over 150 compounds in the body.
- Sulphur is part of every cell and is concentrated in the connective tissue, skin, nails and hair. (Ever burned a strand of hair? The sulphurous odour comes from the hair's keratin content, composed of sulphur).
- Sulphur is found in the amino acids methionine, cystine, and cysteine, considered to be the building blocks of protein. Supplemental MSM can enhance these important amino acids.
- It aids in the production of immunoglobulin to maintain a normal immune system.
- “It is involved in the building up of our body substance, the energy that sustains our physical activity, and the neutralization of oxidants and toxins that can destroy our health from within.”
- Since ancient times, sulphur has been associated with healing. From the time that Agamemnon, leader of the Greeks in the Trojan wars, brought his wounded soldiers

to the Balcova hot springs to today, sulphurous waters have attracted those suffering from arthritic diseases and digestive disorders.

Getting enough sulphur in our diet is even more important today, as modern agricultural methods and food processing deplete soil minerals and strip foods of their sulphur.

MSM AND CHRONIC PAIN

Authors and world-renowned experts on the use of MSM, Drs. Stanley Jacob and Ronald Lawrence, freely admit that MSM relieves pain, but may not effect a cure. In fact, many persons taking MSM because of injuries, osteoarthritis, etc. may have to take it continuously. Other practitioners who are using MSM in their practices find that it does improve their patients' condition, giving them greater range of motion, less inflammation, and so forth. Dr. David Blyweiss, MD, has been recommending MSM to his patients: “Patients come to me and say that their pain is 50% better or more on MSM. A dozen people have told me that. None of them has mentioned any negative effect... The patients tell me they start to feel better within a week... They talk of having less fatigue, better sleep, and better ability to exercise. All of these effects are downstream from having less pain” (Jacob, *et al*).

MSM AND ALLERGIES

Many people have experienced relief from seasonal allergies when taking MSM and reports suggest that the amount of allergy medication needed was reduced. (However, people with life-threatening allergies should always be under the care of a health care practitioner before self-medicating.)

HELPS INFLAMMATION?

“MSM is a bonafide anti-inflammatory agent... In hundreds of cases, we have seen swelling in patients go down, felt localized heat normalize, and observed the redness decrease and become more like the normal colour of the skin. Patients themselves attest to the pain reduction and normalization of function” (Jacob, *et al*). MSM can normalize fibroblast production – excess fibroblasts can lead to the formation of scar tissue. As it has a muscle relaxing effect, MSM reduces muscle spasms that accompany injury.

MSM AND ARTHRITIS

Sulphur is needed to form connective tissue, so MSM may help in treating arthritis and other joint and connective tissue conditions. It has been found that persons with

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arthritis have only one third the level of sulphur in their cartilage compared to normal levels. Although MSM is not supported by many randomized double-blind studies, there is much clinical evidence to show its benefit for any inflammatory condition, particularly arthritis. However, a small double-blind study on patients with arthritis reported an 82% average improvement in pain relief, compared to an 18% improvement in those who took a placebo (Lawrence).

GASTROINTESTINAL UPSET AND PARASITIC INFECTIONS

In vitro and *in vivo* tests show that MSM is active against *Giardia lamblia* (Traveler's Diarrhea), *Trichomonas vaginalis*, nematodes, and intestinal worms, due to the sulphur.

HELP FOR SNORING AND OTHER CONDITIONS

Some people have found relief from snoring when they sprayed a 20% MSM solution into their nose about 10 minutes to an hour before bed. In one sample of fifteen individuals, their snoring was reduced by 80%.

Others have found that their skin improved when they took oral MSM or applied MSM cream or lotion on the problem area.

Dr. Jacob recommends MSM for chronic constipation. Among the older patients in his clinic he noticed prompt and continued relief of constipation when they were given 100 to 150 mg of MSM per day.

THE ENERGY SIDE EFFECT

Although anecdotal, many people comment on their increased energy after they took MSM for pain relief. When Lou Salyer, 77, took MSM for painful arthritic knees she experienced a welcome side effect. "For a long while I have had the blahs. I had no stamina. I had to force myself to get things done around the house. After two days on that MSM stuff it was like a blast of energy. I went out and did all the weeding that I had been putting off. At the end of the day I was exhausted. I did more than I should

have... The amazing thing is that the next day my energy was right back up again and it's been up ever since. I take my half teaspoon of powder every day, and I am amazed at how much I get done now. This has been going on for a year" (Jacob, *et al*).

DOSAGE AND SAFETY

One of the safest substances in biology, MSM's toxicity can be compared to that of water. In mice, the lethal dose of MSM is over 20 grams per kilogram of body weight. At the Oregon Health Sciences University, patients have been treated with more than 2 grams of MSM daily for many years, with no toxicity.

To get optimum benefit from MSM, make sure you also have zinc, copper, silicon and vitamin C in your diet. It seems that divided doses of MSM are more effective than a single dose. It is preferable to start with a lower daily dose (1,000 mg, 2-3 times a day) and work up to a higher dose (1,000 mg, 6 times a day). Some persons have found almost immediate relief from pain and other symptoms, but for most people it takes weeks or even months to experience relief. Clinicians using MSM in their practices suggest at least 2,000 mg of vitamin C daily to enhance the effect of MSM. People using MSM on a long-term basis might want to add the B complex vitamins, (particularly vitamin B6, B12 and folic acid) to their daily diet. B vitamins are nutritional cofactors for sulphur metabolism, with added benefits for heart and circulation.

MSM is not known to interact with other medications. However, diabetics and anyone with a serious illness should be under the supervision of their health care practitioner before taking any supplement. MSM is a powerful detoxifying agent, so we suggest that pregnant and lactating women should not take MSM because the toxins released could be too strong for the infant.

MSM can be taken alone or combined with glucosamine sulfate and chondroitin sulfate to help painful joints.

KEY REFERENCES

Jacob S.W., Lawrence Ronald M., Martin Z., *The Miracle of MSM: The Natural Solution for Pain*, Putnam; 1999

Lawrence R.M., "Methylsulfonylmethane (MSM): A double-blind study of its use in degenerative arthritis", *International Journal of Antiaging Medicine*, Summer, 1 (1): 50; 1998