

# MSM

## *For Pain Relief and Overall Wellness*

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**M**ethylsulfonylmethane (MSM) is gaining a strong following among health professionals and the public for its ability to relieve pain and promote wellness. Many physicians are finding that patients' need for pain medication can be greatly reduced when MSM supplements are taken at the same time. For many, MSM has allowed them to live pain-free for the first time in years. The research on MSM and its pain relieving properties is still in its infancy. The good news, however, is that MSM is an innocuous natural substance that can be used safely along with a host of pain medications.

Safety is an important point when it comes to pain relief, because many of the medications used to treat pain are toxic. NSAID pain medications alone are responsible for over 20,000 deaths and over 100,000 hospitalizations per year in the U.S. By contrast, MSM is completely safe, even in large doses. This is because MSM is a naturally occurring substance found in small amounts in produce, meat, milk, and seafood. MSM has always been a nutrient in our diet, and is a natural component of our plasma. Unfortunately, however, heat and processing destroys or greatly reduces the MSM content of food, leaving many with a suboptimal intake of this important nutrient.<sup>1</sup>

MSM provides most of its benefits by supplying the body with sulfur. Sulfur is responsible for the health promoting and pain-relieving properties of MSM. Approximately half of the sulfur in the body is found in the muscles, skin and bones. Sulfur is necessary for making collagen, the primary constituent of cartilage, skin and connective tissue.

### **Acid Lowering/Heartburn Relieving Effects**

Pilot studies have suggested that MSM can provide extremely effective and immediate relief from excess acidity, and without side effects, unlike the prescription antacids or acid-blockers. MSM can be taken every day without disturbing any of the body's normal functions, including acid/alkaline balance.<sup>2</sup>

### **Allergies**

MSM has strong anti-inflammatory activity on the body which can greatly assist in reducing inflammation that is common in allergic reactions.<sup>3</sup> Both environmental and food allergies can be reduced with MSM. Asthma and hay fever sufferers also have reported significant relief with MSM.

### **Arthritis**

MSM has shown excellent potential in the treatment of osteoarthritis. Studies have shown MSM to be as effective as medication for pain relief in osteoarthritis, and without any of the toxicity of drug treatments.<sup>4</sup> MSM has also been found helpful in rheumatoid arthritis.<sup>5</sup>

### **Preventing Breast Cancer**

Research in animal studies has shown that oral MSM can protect against the onset of breast cancer.<sup>6</sup> In both breast and colon cancer studies, MSM significantly prolonged the time of appearance of both tumors and cancers.

### **How to Take MSM**

MSM should be taken daily. It is best to start with 1,500 mg of MSM for the first week in order to prevent the body from detoxifying too quickly, which can occur in some taking too much MSM initially. After the first week, the dose can be increased to 3-10 grams per day (3,000 to 10,000 mg). This dose can be taken as long as needed. When taking larger doses, the powdered form of MSM is more convenient and economical. To improve the taste of MSM powder, dissolve it in lemon juice and water, or in cranberry juice. Taking MSM at the same time as other supplements is also a good idea, as MSM works synergistically with all nutrients. For the best results, spread your MSM dosage equally throughout the day. MSM is safe in high doses and to date has yet to be found to interfere or interact with any medications. Many also find that adding MSM powder to their bath water helps relieve pain and aid detoxification.

### **Possible Applications of MSM:**

- Acne
- Allergies
- Bursitis and Rheumatism
- Carpal Tunnel Syndrome
- Fibromyalgia
- Heartburn
- Mercury Removal
- Muscle Pain
- Osteoarthritis
- Tendonitis

For an extensive discussion of the benefits of MSM, refer to the book *The Miracle of MSM: The Natural Solution for Pain* (Putnam Press, 1999) by Stanley Jacob, M.D., Ronald Lawrence, M.D., Ph.D. and Martin Zucker. Stanley Jacob, M.D. is regarded as one of the pioneers in the clinical applications of MSM, and in his book, he discusses his many case histories where he has used MSM to treat pain, inflammation, asthma, osteoarthritis, autoimmune diseases, carpal tunnel syndrome, fibromyalgia, tendonitis, sinusitis, shin splints, TMJ, back pain, allergies, and other conditions.

### -----Common Questions about MSM-----

Q: *What happens when I take MSM?*

A: The sulfur in MSM will help take certain chemicals and make them water soluble. This allows them to then be excreted by the kidneys. Some of the sulfur will be used to make cysteine which will be used to make glutathione which will rid toxic metals, protect cells from oxidation, and do other important health promoting activities.<sup>7</sup> MSM will also go to any injured cells and reduce inflammation, increase flow of nutrients to the site and promote tissue repair. It may also help prevent scarring. If you are an allergic person it will help control your histamine response. MSM has also been found to raise energy.

Q: *If I am allergic to sulfa drugs, will I be allergic to MSM?*

A: Doctors usually answer this question with a YES. However, it is very rare to be allergic to nutritional sulfur. Most people allergic to sulfa drugs tolerate MSM very well. However, if you are concerned about the possible sensitivity to sulfur, start with a small amount of MSM and build up your intake slowly under the guidance of your health care practitioner. Taking 100 mcg of molybdenum along with MSM will also help you to metabolize MSM more effectively.

Q: *When I started taking MSM I got a headache. Can MSM be to blame?*

A: This is not common, but can occur. First of all, the sulfur in MSM increases detoxification, the body's process of removing cellular and metabolic waste. This "spring cleaning" initiated by MSM is a health enhancing process, but if you start to release toxins too quickly, this could cause a headache. The solution? Stop your MSM for a few days, and begin to take it again in reduced doses so your body can cleanse itself more slowly. This will allow you to detoxify without headaches.

Q: *Should I be taking other nutrients with MSM?*

A: Taking a supplement of 100 mcg per day or more of molybdenum helps MSM work more effectively. Also, taking a high quality multivitamin and a potent antioxidant formula is also recommended to maximize the benefits of MSM.

Q: *How does MSM stop pain?*

A: MSM has many of the actions of DMSO. In a 1993 study conducted at Southern Illinois Univ., researchers concluded that conduction of pain impulses is slowed down with even

low concentrations of DMSO. DMSO inhibits pain impulses along a major nervous system network called C fibers. C fibers carry pain messages from the site of damaged tissue to the brain. Other studies have shown that DMSO can even produce a blockage of central pain response in the brain where pain is received.

Q: *How does MSM relieve constipation?*

A: It dilates blood vessels to increase blood flow. More impressively, MSM appears to be a cholinesterase inhibitor so it stops excessive passage of nerve impulses from one nerve cell to another. It is capable of restoring peristalsis and stops muscle spasms in the bowel.

Q: *How does MSM relieve inflammation?*

A: MSM increases the effectiveness of the body's natural anti-inflammatory hormone, cortisol. MSM also inhibits proliferation of fibroblasts.<sup>8</sup> Excessive amounts of fibroblasts are produced in the swelling process and lead to scar tissue. MSM also binds to fluid in swollen tissue and aids in its removal.

Q: *How can MSM help with allergies and/or respiratory problems?*

A: MSM blocks histamine receptors. It acts like a bodyguard outside the cell membrane deciding how much histamine will be allowed in to cause inflammation, swelling and fluid build-up.

Q: *Why can't I just eat more sulfur-rich foods and not take MSM?*

A: Eating more of these foods will give your body more sulfur, but not duplicate the effects of MSM. MSM has many actions in and of itself that only occur when optimizing MSM intake directly.

Q: *MSM gave me a rash. Should I stop taking it?*

A: The MSM is probably helping you to rid excess copper and/or toxic metals such as mercury. Both of these metals can cause a skin rash. You do not need to stop taking the MSM. It would be helpful to add Vitamin C to help the process along and minimize symptoms. You could also reduce the dosage of MSM and detoxify at a slower pace.

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### References

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