

MSM

By Raymond Francis

What is MSM, and why should you care? A healthy body is made of healthy cells, and healthy cells need sulfur. It is essential that the body have a plentiful supply of this mineral in its usable form. MSM (*Methyl sulfonyl methane*) is an organic form of sulfur that is easily absorbed and utilized by the body. It is a naturally-occurring compound that is found in many foods including meat, seafood, fruits and vegetables. MSM plays an essential role in heavy metal detoxification. It mitigates allergies, reduces joint pain, improves digestive ailments, alleviates emphysema and helps with diabetes.

MSM is found in every cell in the body, and because sulfur is so important, supplementing with MSM is a good idea, especially for people over age 50. Some say we don't need to supplement because MSM is found in so many foods. However, storage, cooking and processing destroy MSM, so most of us need to supplement.

Sulfur is an essential building block for proteins and is vital to the creation and regeneration of the body's tissues including joints, cartilage, skin, hair and nails. Sulfur supports many vital biochemical processes in the body, including energy production. Sulfur is essential to life, and the major function of MSM in the body is in creating healthy new cells. If your body is sulfur deficient, cell walls become hard and stiff, hindering the flow of fluid through them. MSM makes cells flexible and elastic. If the concentration of MSM in the body is low, new cells lose flexibility and elasticity; tissues made from those cells will not function normally and are more likely to fail.

Healthy cells are permeable, and MSM makes cells permeable. Permeability allows water and nutrients to freely flow into cells and allows wastes and toxins to properly flow out. This in turn means more efficient elimination of toxins and a reduction in inflammation and pain.

Healthy cells will not only make you feel better, they will make you look better with a softer, smoother complexion and stronger hair and nails. Sulfur has been called nature's "beauty mineral" because it is needed to keep the hair glossy and smooth and the complexion clear and youthful. Without proper levels of MSM, your body will be unable to build healthy cells; this leads to problems such as lost flexibility, scar tissue, wrinkles, varicose veins, hardened arteries, damaged lung tissues, dry cracking skin, digestive disorders, joint problems, and inability to defend against allergic reactions to food, animals and pollens.

MSM is fundamental to our biochemistry, affecting many bodily functions, including immunity. The proper acid/alkaline balance of the body cannot be maintained without sulfur. MSM has excellent anti-inflammatory and pain-reducing properties. MSM supports healthy connective tissues like tendons, ligaments, and muscle. MSM is used around the world for relief from arthritis, muscle pain, joint pain, fibromyalgia and inflammation; it has shown a remarkable ability to reduce or eliminate muscle soreness and cramps. It's even given to race horses before a race to prevent muscle soreness, and afterward to reduce the risk of cramping. People with arthritis report substantial and long-lasting relief. MSM is considered one of the safest and most effective pain relievers. When cells are more permeable and fluid passes through more easily, this helps equalize pressure, reducing or eliminating the cause of pain. Harmful substances such as lactic acid and toxins are allowed to flow out, while nutrients are permitted to flow in. This prevents the pressure buildup in cells that causes inflammation.

By reducing inflammation, MSM permits muscles to heal and prevents them from becoming sore. MSM helps repair worn or damaged cartilage in joints, ligaments and tendons with healthy, flexible new cells. MSM is used for relief from food and pollen allergies and is as effective as or better than traditional antihistamine preparations. MSM has been successfully used for head trauma, interstitial cystitis, scleroderma, rheumatoid arthritis and osteoarthritis, re-transformation of cancer cells, increasing blood circulation, normalizing the immune system, Alzheimer's disease, and back pain. MSM is also a powerful detoxifier. MSM increases the body's ability to produce insulin. It helps to normalize blood sugar, and supplementation has rebalanced blood sugar in many cases. It is important for carbohydrate metabolism and speeds wound healing. MSM also can reduce scar tissue by altering the cross linking process in collagen to allow tissue repair and healing to take place. MSM has also shown amazing action against parasites, including Giardia, Trichomonas, roundworms and nematodes. When parasites attach to the intestinal lining, they can live, reproduce and rob the body of nutrients. MSM blocks parasites by competing for receptor sites on the mucous membrane. When parasites cannot attach themselves, they are simply flushed out of the system. To top it off, MSM is nontoxic and does not interfere with any other pharmaceutical medicines or supplements.

New research has been supporting the effectiveness of MSM supplementation. A 2008 study in the *FASEB Journal* found that supplementing the diet with MSM can increase the amount of glutathione in the liver. Glutathione is a major part of our antioxidant defense system, and maintaining adequate amounts of glutathione is essential to good health—hospital patients with low glutathione are more likely to die. The researchers found that, “Adding MSM to the drinking water of mice resulted in a greater than doubling of the amount of total glutathione in the liver. They also found that animals administered carbon tetrachloride, a potent liver toxin, and also given MSM showed a significant reduction of liver damage compared to non-MSM animals.” This study shows that MSM protects the liver from damage by toxins.

A 2007 study at the University of California, San Diego demonstrated how MSM protects cartilage and reduces inflammation in osteoarthritis. MSM reduced the expression of genes for pro-inflammatory cytokines and cartilage degrading enzymes. Several other studies with MSM have shown a positive effect in supporting joint function among persons living with osteoarthritis. Meanwhile, a 2008 study in *Experimental Biology* found that MSM had a protective effect against the development of osteoarthritis. As more people become aware of the risks of taking prescription and over-the-counter pain medications, MSM is gaining a reputation as a natural solution for pain.

MSM ranks in the “extremely low” toxicity category. When oral supplements are taken, the body will distribute MSM where it is needed. After about 12 hours, any excess amounts will be flushed out. One caveat is that people with kidney stones may not want to take MSM. Likewise, those who are allergic to sulfur-containing substances should avoid MSM as a precaution. Some people may experience detoxification symptoms in the first one to ten days of taking MSM while toxins are flushed from the system. Symptoms may include diarrhea, skin rash and or possible headache along with several days of fatigue. In general, the more intense the symptoms the more toxins there are in the body, and the more MSM is needed for detoxification. To avoid such reactions, simply start with a lower dose. We suggest starting with only one 500 mg capsule and slowly increasing the dose.

Like most nutrients, MSM acts synergistically with other nutrients. For example, both biotin and vitamin C help MSM to metabolize. Sulfur is present in every cell of every living thing, it might seem that we

would get plenty of this essential mineral from dietary sources and should not need supplements, but that may not be the case, especially for vegetarians.

Plants cells contain sulfur but not in abundant quantities. Then MSM levels decline noticeably with age. As we get older, supplementing becomes more important to maintain adequate sulfur levels in the body.

Not surprisingly, not all MSM is created equal. Most of what is sold is cheap junk. There are two methods by which MSM is purified—crystallization and distillation. Crystallization costs substantially less, and MSM products made from this process can be purchased at much lower prices, but crystallization greatly increases the risk of producing an impure and inferior product. Such products often contain contaminants such as lead, arsenic, cadmium, aluminum, mercury and even microbes.

Crystallization is highly dependent upon the quality of the local water used, the quality of the raw materials, and the procedures used in the manufacturing. A crystal inherently contains occlusions wherein impurities can become entrapped. This is of great concern regarding suppliers in countries such as India and China, where water quality has been identified as substandard. Heavy metals and other impurities have been reported in Chinese and Indian dietary supplements.

Distillation is a more cost-intensive process, but proper distillation ensures that the final product contains only pure MSM. Beyond Health's MSM uses only the highest-quality, distilled MSM and nothing else. You will not find any additives, fillers, binding agents, or anything else in our product. In fact, it is not possible to purchase an MSM product that is superior Beyond Health's—such is our passion for quality! Remember, the reason you are taking MSM is to improve your health—don't take inferior MSM!

The generally recommended dosage of MSM is 1,500 to 6,000 mg per day. The optimum daily dosage of MSM depends largely on body size, age and the nature and severity of any deficiency symptoms you may be experiencing. Since vitamin C provides a positive synergistic effect, it should be taken along with MSM. For the highest quality MSM available, call Beyond Health at 800-250-3063, or go to www.beyondhealth.com.

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