

MSM and Sulfite and/or Sulfa drug allergies

MYTH: PEOPLE WITH ALLERGIES TO SULFA DRUGS OR SULFITES CANNOT TAKE MSM

Dr. Appleton: It is a common misconception that people with allergies to sulfa drugs or to sulfites are” allergic to sulfur”. Of course it is not possible to be allergic to sulfur. Sulfur is an element, like oxygen or potassium: the tenth most abundant element in the universe in the fourth most abundant mineral in the human body. A 70-kg* human body contains approximately 200 grams of elemental sulfur.

Humans consume large amounts of sulfur each day, most abundantly as sulfur-containing amino acids cysteine and methionine. Foods are a rich source of dietary sulfur. Sulfur-containing foods include fish, poultry, eggs, milk, legumes, onions, garlic, cabbage, Brussels sprouts and turnips. Sulfur is also a major component of many nutritional supplements, not just MSM. These include cysteine, methionine, taurine, N-acetylcysteine (NAC), glutathione, thiamine, and biotin. Are people with allergies to sulfa antibiotics or sulfites allergic to these sulfur-containing molecules as well? We could not survive without sulfur.

Allergy to sulfa drugs is one of the more common drug allergies. Sulfur drugs are more appropriately termed sulfonamides and are derivatives of para-amino benzoic acid (PABA). A sulfonamide allergy is different from a sulfite allergy because sulfonamides and sulfites are distinctly different chemicals. Similarly, both of these agents are distinctly different from MSM. A person allergic to sulfa drugs is no more likely to be allergic to MSM or sulfites than any other individual. The mechanism of sulfonamide drug allergy is immune-mediated. When a sulfonamide is metabolized in the body, the drug is capable of attaching to human proteins, forming a larger molecule and possibly launching an immune response. Sulfiting agents are a group of chemicals that include sulfur dioxide, sulfite salts and sulfate salts. Sulfur dioxide is considered to be the offending component in a sulfite allergy. Sulfites and sulfates are metabolized to sulfur dioxide under certain conditions that depend on concentration, heat, and pH.

Some sulfiting agents are FDA-approved preservatives that are added to food and pharmaceuticals. The more common sulfite agents are sodium sulfite (Na_2SO_3), sodium bisulfite (NaHSO_3), and the sodium meta-bisulfite ($\text{Na}_2\text{S}_2\text{O}_3$). Foods containing sulfites include wine, gravies, molasses, lemon and lime juice, fresh shrimp, peppers, onions, pickles, coconut, lettuce, avocados, mushrooms, grapes, dried fruits and many more. Several mechanisms of sulfite sensitivity have been proposed, but no antibody activity has been identified in association with sulfite exposure.

Dr. Jacob: No allergic reactions to MSM have been documented, even though hundreds of our patients with allergies to sulfonamides and to sulfites have taken MSM daily over prolonged periods without incident. Moreover, the only clinical trial of oral MSM to be published in a peer-reviewed scientific journal utilized the compound as a *treatment* for seasonal allergies (see Chapter 16). There is currently no evidence to support the concern that MSM supplementation could trigger reactions arising from sulfur allergy or sulfite insensitivity.”

"MSM-The Definitive Guide - A Comprehensive Review of the Science and Therapeutics of Methylsulfonylmethane" By Stanley W. Jacob, M.D. F.A.C.S. and Jeremy Appleton, N.D.

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*70KG is approximately equal to 154 pounds