

DMSO

Also known as: Dimethyl sulfoxide

What does it do? DMSO (dimethyl sulfoxide) is a colorless, slightly oily liquid that is primarily used as an industrial solvent. The use of DMSO for therapeutic applications is controversial, but some evidence indicates that DMSO has anti-inflammatory properties and alleviates pain when applied to the skin. These effects have been reported particularly with connective tissue diseases (such as scleroderma, osteoarthritis, and rheumatoid arthritis) and muscle injuries.^{1 2 3} DMSO appears to reduce pain by inhibiting transmission of pain messages by nerves and may also soften the abnormal connective tissue associated with disorders such as Dupuytren's contracture, keloids, Peyronie's disease, and scleroderma.⁴

Double blind and other placebo-controlled studies have found a 25% DMSO gel effective for pain relief in osteoarthritis of the knee⁵ and a 50% DMSO cream helpful for symptoms of acute reflex sympathetic dystrophy.⁶ A similarly controlled study successfully used a 10% DMSO gel to reduce pain and improve movement in people with acute tendinitis of the shoulder or elbow,⁷ confirming the findings of an older study.⁸

Uncontrolled research has suggested that DMSO may help relieve symptoms of amyloidosis of the skin.⁹

Some medical doctors have instilled DMSO into the bladder to treat interstitial cystitis.¹⁰ A study from Malaysia reports that oral DMSO reduced relapse rates for peptic ulcer significantly better than placebo or the ulcer drug cimetidine.¹¹ DMSO is sometimes used by physicians as a vehicle to help absorb other therapeutic agents through the skin.

Where is it found? DMSO is derived from trees as a manufacturing by-product from the processing of paper. Metabolites of DMSO, such as the sulfide and sulfone form, are naturally present in the human body; however, the role of these in the body are not clear.

Who is likely to be deficient? DMSO is not an essential nutrient and it is not needed in the functions of a healthy body; therefore, deficiencies do not exist.

How much is usually taken? DMSO is not indicated for healthy people; those who do use this substance should consult a doctor familiar with its use. Some physicians do not recommend the use of DMSO, due to concerns about safety and questions about efficacy. The potential for contamination exists in some DMSO products designed for industrial uses. DMSO used topically is rapidly absorbed through intact skin; therefore, the area of skin (and the hands applying DMSO) must be clean, because anything on the skin will also be absorbed along with the DMSO.

Are there any side effects or interactions? DMSO

frequently causes a garlic like body odor and taste in the mouth. Other reported side effects include stomach upset, sensitivity to light, visual disturbances, and headache. Skin irritation can develop at the site where DMSO is applied. Only highly purified DMSO should be used and the skin and applying hand should be thoroughly cleaned before application, because the solvent properties of DMSO allow any contaminants to be absorbed through the skin and transported into the bloodstream.

References:

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