

# DMSO

Dimethyl Sulfoxide (DMSO) is a colorless, odorless, transparent substance obtained from wood.

First discovered by Russian chemist, Alexander Mikhaylovich Zaitsev in 1867, today DMSO is obtained as an industrial by-product from lignin in paper manufacturing. Because of its polarity and low acidity, it can be **mixed with other substances to increase their effect**. Its ability to **penetrate biological membranes** and transport other substances with it has also made it an excellent carrier.

Hartmut P.S. Fischer has explained in “The DMSO Handbook: A New Paradigm in Healthcare,” the following brief summary of pharmacological properties on humans and animals: regenerator, anti-inflammatory, analgesic, diuretic, loosens connective tissue, penetrator, carrier, protector, modulator, relaxant, vasodilatory, antioxidant, anticoagulant, and oxygenator.

**These qualities play out in reducing pain, alleviating inflammation, diuresis, vascular dilation, free radical scavenging, wound healing, and muscle relaxation.**

While DMSO has been used successfully on virtually every area of the body, the FDA conducted a reprehensible campaign against it and was able to successfully bury it. **DMSO is available without a prescription** in gel, cream, or liquid forms. It can be purchased in health food stores, by mail order, and on the Internet.

DMSO has a LD50 value and is **safer than ibuprofen, aspirin, caffeine, and cooking salt**. Study after study has proven its safety record on both animals and humans.

**Contraindications:** According to Jacob in “The Miracle of MSM The Natural Solution For Pain,” DMSO has been found to counteract platelet aggregation. He advises caution for those taking blood thinning agents such as heparin, aspirin, or dicoumarol. Accelerated blood thinning cannot be ruled out. Indications that it is occurring would be bruising or increased bleeding from hemorrhoids.

NOW FOR THE TRICKY PART.....

When applied externally DMSO opens capillaries. This can lead to temporary redness of the skin. It can also burn and itch. To me it feels a lot like the red flush of taking niacin.

The reduction in pain and swelling will be dramatic and will be worth the initial discomfort. For some, pain went away in seconds. Others state it took number of days for noticeable improvement.

The next tricky part is understanding how DMSO breaks down into components. Most of the DMSO will be broken down to MSM in the body; however, there is a small part (about 1%) that breaks down into a substance that causes a temporary odor. Some say it smells like garlic or oysters. You may **taste and smell** this within seconds.

The viscosity of DMSO is double that of water which means it drips off the skin easily which is why many like gels and lotions; however, Fischer cautions that gels/lotions are made from raw materials such as polyacrylic acid derivatives which will be taken directly into the body. He recommends the pure DMSO liquid that will take a tad longer to be absorbed than the lotions. Having a small fan on the area will expedite the drying.

And that's another point that needs to be made. **DMSO MUST COMPLETELY DRY before anything touches it.** Again, because DMSO is a solvent/carrier, it will take everything and anything directly into your body such as perfumes, dyes, germs, etc.

**Application:** must be done over an unbleached white towel, with clean hands and instruments and allowed to completely dry before covering with clothing or anything else. You may apply topically every 4-6 hours.

**Dosage for pain:** depending upon **where** you are applying it, apply from 25-99% DMSO either liquid or gel on needed area and allow to dry before touching anything. A rule of thumb is if it's from the waist down, use 99%, if it's from the waist up, use 70% or less. If using liquid, you can use a sterile cotton ball or sprayer to apply. Do not "rub" it in. Simply apply on area, leave wet, and allow to dry. In all my years of using DMSO, I've only had one patient develop a rash and mild blistering requiring her to reduce to a 70% solution. My theory is she's a blonde haired, blue eyed person with sensitive skin. If this is you, keep this in mind. 99% is typically tolerated quite well when used for pain.

Remember, it will burn or itch for 15-20 minutes. Try not to touch it!

**Storage:** I would only get DMSO stored in glass as immune disruptors in plastics can leach into your body. Store in a dry, cool, dark place - preferably with a cap so it doesn't aromatize. You may use a dropper or sprayer, for application but then remove applicators, which are usually plastic, and put the cap on.