

## **THE VALIDITY AND EFFECTIVENESS OF DMSO (DIMETHYL SULFOXIDE)**

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Dimethyl Sulfoxide, commonly called DMSO, has been described by its supporters (nearly everyone who has ever used it) as a true medical miracle. It has been used in the treatment of hundreds of ailments that afflict people throughout the world. In fact, by itself, or in combination with other medications, DMSO HAS PROVEN USEFUL IN THE TREATMENT OF PRACTICALLY EVERY MEDICAL PROBLEM KNOWN.

What is DMSO: It is a natural chemical compound derived from trees as a by-product from the manufacturing of paper. It is composed of two methyl groups (CH<sub>3</sub>) and a sulfur and an oxygen atom. It was first synthesized by a Russian chemist, Alexander Zaytsev, in 1866. For over eighty years, DMSO was basically ignored. During the late 1940's industrial chemists started investigating the solvent capabilities of DMSO. Improved solvents were needed, and there was interest in utilizing tree derived waste products.

Commercial development of DMSO was started in the 1950. Crown Zellerbach, a large American paper manufacturing company started producing DMSO during this time and became the largest producer of DMSO in the world. At this time Robert J. Herschler was the supervisor of applications research in the chemical products division of the Crown Zellerbach plant in Camas, Washington, which is across the Columbia River from Oregon Health Sciences University. As a chemist, Mr. Herschler conducted research on DMSO and other tree derived chemicals.

Stanley W. Jacob, M.D. was head of the organ transplant team at the University of Oregon Medical School which is now called Oregon Health Sciences University. He needed a way to preserve transplant organs at a low temperature without the formation of ice crystals. Various products and procedures were tried without success. Before DMSO, there was no way to preserve organs without the formation of ice crystals which killed the tissue.

In 1961, Dr. Jacob and Robert Herschler met for the first time, and Dr. Jacob was introduced to the anti-freeze capabilities of many uses of DMSO. While 100% DMSO will freeze at 66 degrees, a 50% mixture of DMSO and water will not freeze at temperatures far below the freezing point of straight water.

Dr. Jacob soon discovered that DMSO had many other properties that would later prove to make DMSO one of the most important medical products ever discovered. Just a few of these properties, or even one by itself, could make DMSO an important product in the treatment of a wide variety of conditions. When all these properties are combined in one substance, we have a truly amazing product.

DMSO has been described by Dr. Jacob as a new medical principle. It is substance that is totally strange to medical science. Its mode of action is not completely understood, and it is used to treat some ailments that have long been considered as untreatable. Also, because of its distinctive odor, it is very difficult to conduct double blind studies with DMSO. However, it is always possible to have studies involving DMSO where the results are compared to current treatment. As an example, if a disease at a certain stage has an expected mortality rate of 80% within one year, and there is a 10% mortality rate for those treated with DMSO, it shows that DMSO is a successful treatment. If the mortality rate stays in the 80% range, it shows no improvement.

Methylsulfonylmethane, commonly called MSM, is a product that is derived from DMSO. MSM has many of the properties of DMSO, but is generally regarded as a food supplement. It has not been subject to the medical studies of DMSO and is not considered to be as effective as DMSO in treating most ailments. However, it also does not cause the patient to have the garlic-like DMSO breath.

DMSO is one of the most powerful free radical scavengers known. Free radicals are unstable charged molecular fragments that attack other molecules causing severe damage to cells throughout the body. This disrupts the normal functioning of various organs in the body. Free radical damage is usually slow and accumulates over the years. Eventually this can lead to such ailments as cancer and arthritis. It can also lead to premature aging. It is possible that the regular use of DMSO may completely prevent some serious ailments.

Another important action of DMSO is its immune normalizing effect. This makes DMSO important in the treatment of autoimmune diseases and can also help the natural immune system fight off various infectious and contagious diseases.

DMSO also passes through the skin and other cellular membranes of the body. This is the reason that the application of a small amount of DMSO applied topically to the skin can cause a garlic like breath odor. DMSO is one of the few products that are able to cross the blood brain barrier with it. This could make DMSO valuable in the treatment of many brain problems.

Another important action of DMSO is it is a vasodilator. This can increase blood flow, allowing blood to more easily reach areas where damage may have occurred. Often an injury causes decreased blood flow to the injury site, and some of the damage is caused by the lack of blood to the area after the injury, and not just the injury itself.

In many cases DMSO is used to treat one problem, and it ends up helping a completely unrelated health problem. Hopefully, more doctors both in the United States and other countries around the world will try DMSO, especially in treating their more difficult cases where nothing else seems to help.

Dr. Badanek has been and currently is 35 years into active/private practice in the Ocala/Marion County, Florida region. Find him online at [Dr.Badanek.com](http://Dr.Badanek.com) and [www.alternativewholistic.com](http://www.alternativewholistic.com), and see what the facility has to offer the sick and health challenged. To schedule an appointment call 352-622-1151