MSM Gel.

KALA Health, Inc.’s MSM gel is based on a formula, which has been used for well over ten years by Stanley Jacob, M.D., the physician who first promoted MSM. Dr. Jacob developed this gel in order to maximize the benefits of MSM in topical applications, and he has used it for many years to treat thousands of people. Dr. Jacob as offered his unique formula to KALA Health, Inc. for exclusive distribution. MSM gel's most popular use is for the temporary relief of joint discomforts in hands, feet or knees. MSM gel also finds practical application in most households as first aid in case of minor burns or cuts, as a skin moisturizer, to relieve itch caused by poison ivy and oak, and to use a shaving gel.

For therapeutic purposes it should be applied to the skin several times daily, and it works best when supplemented by 6 to 8 grams of MSM capsules per day. For general cosmetic purpose, it can be applied as often as desired. The gel is applied directly to the skin and should be allowed to completely dry. Wiping is not necessary. There is no residue, and the MSM gel is readily absorbed into the skin.

I am a 62-year-old retired/disabled dentist with severe lumbar spinal problems. Your "Skin & Facial Gel", (MSM gel) has returned me to near normal mobility, with only one application each morning. My morning application of the gel allows me to fulfil a normal daily business schedule, although I cannot assume the “dental position” required for practice. It’s incredible!! I am thrilled! Sincerely, Barry H. Baum, DDS. Santa Rosa, CA

HOW MSM GEL WORKS

The skin is the body's largest organ. It consists of a thin outer layer called the epidermis and a much thicker inner layer, the dermis. Beneath the dermis is the sub cutis, which is an insulating layer of fat. A tough fibrous protein called collagen keeps these skin structures together. Collagen works with fibers of another protein called elastin, which gives the skin its elasticity. Hair and nails consist mostly of a tough protein called keratin. The main building block of keratin is the sulphur containing amino acid cysteine. All proteins require sulphur. MSM is an organic sulphur-containing nutrient that supports health by providing nutritionally essential sulphur and methyl groups. MSM is a small molecule containing 34% elemental sulphur, and is readily absorbed by the skin and immediately available when applied as a gel.

Cross Linking

Collagen fibers in the skin lie in a flat crisscross pattern. Sulphur is responsible for the flexible bond between cells, including those that make up the skin. When the body is deficient in sulphur, sulphur bonds between proteins are not optimal, and cross-linking between the fibers occurs. MSM is the main natural source of biological sulphur. Topical supplementation with MSM gel helps to block the formation of cross-linking or bonding of collagen, which is associated with a tough, aging skin. MSM sulphur allows the body to produce more sulphur bonds, which results in pliable, wrinkle-free skin, tougher hair and nails. Many users report that MSM gel makes their skin smooth and the effect lasts many hours.

MSM Gel

Each bottle contains 9 fl. oz. maximum strength MSM gel (15%)

Directions for Use:
Apply generously several times per day to skin or sore joint areas. Rub in deeply until dry to touch.

Ingredients: Methylsulfonylmethane 15%. Also contains: Deionized water, Hydroxyethylcellulose, Diazolidinyl, Urea, Methylparaben, Propylene Glycol, Propylparaben, Sodium Hydroxide, Citric acid.

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MSM Gel continued.

Skin Irritations
Many people find relief when MSM gel is applied to problematic skin conditions. Dr. Stanley Jacob recommends using MSM gel in combination with MSM capsules or powder.

Dr. Stanley Jacob’s Medical Experience
Over the years, Stanley Jacob, MD has used MSM to treat dozens of patients who had sustained first or second degree burns. Dr. Jacob has not treated third degree burns using MSM. He reports good success using topical MSM to prevent blister formation in second-degree burns. Many, but not all, of these patients took oral MSM concomitantly. The primary benefit is from topical application. Also, he found that the pain caused by scarred tissue and adhesions have dramatically subsided or completely disappeared, sometimes within a few days (source: MSM, The definitive Guide; 2002. Stanley Jacob & Jeremy Appleton. Freedom Press.) Dr. Jacob uses a gel containing 15% MSM, similar to the gel formula offered by KALA Health, Inc.

CLINICAL STUDIES WITH MSM GEL INVOLVING THE SKIN

Test 1
To determine the amount of MSM needed to produce a desired effect, a series of tests on healthy skin of human subjects were performed. Eleven separate compositions were formed containing different amounts of MSM. As a solvent, each composition included liquid comprising equal amounts of water and ethanol. Compositions were applied daily to separate subjects. Softness and smoothness were improved after two to three weeks when a 1 to 5 % MSM solution was applied. Rapid improvement (within a week) in skin softness and smoothness were observed when the solution contained 5 or more percent of MSM.

Test 2
A gel containing 6 % by weight MSM was applied to the skin of subjects having a variety of problem skin conditions. In none of these applications did the subjects experience instantaneous discomfort of the type frequently encountered when medical preparations were applied. In a number of instances the gel was soothing to the effected skin and provided a protective coating for the affected area.

Test 3
Fifty human subjects applied a gel containing 6 % by weight MSM to the skin of the right hand and right foot for three weeks twice daily. The subjects were requested to abstain from using other cosmetic preparations during the test period. After one week, the evaluators noted a substantial improvement in skin softness, smoothness and comfort. Seven of the subjects continued to apply the formulation for a second week. At the end of this period, further improvement in softness, smoothness and comfort were observed.

Test 4
MSM was added to hydrolysed collagen representative of the collagen found in the external layer of the skin, which hardens with dehydration. Five aqueous solutions of MSM were prepared containing 2, 4, 6, 8 and 10 % by weight of MSM. Each of the solutions was heated and combined with a sample of modified collagen at a weight ratio of nine to one. Normally, collagen combined with heated water will swell and form chemical bonds (cross linking) to form a gel. However, no gelation occurred in the mixtures containing 8 to 10 weight percent of MSM solution.

CLINICAL STUDY INVOLVING MSM GEL USED WITH SHAVING
Subjects applied a 6% by weight MSM gel a few minutes before shaving with a razor blade and using a commercial shaving cream. The applications of the gel made for a more comfortable, smoother and cleaner shave than if the commercial shaving cream was used without the MSM gel. Another observation was that the skin resistance and drag of the razor was reduced. When MSM gel was applied to the skin of the legs of several women, it was observed that leg hair could more easily be removed by shaving, even without applying a commercial shaving cream overcoat. In all instances, use of the formulation left the skin feeling softer and smoother.

To order MSM Gel, please visit us at www.opti-msm.com and place your order online, call us at (800) 998-8813 to pay via credit card, or mail your check or money order to: KALA Health, Inc.; P.O. Box 936, Falmouth, MA 02541