

SynovoDerma

Nature's Hydrating Agent

(Hypoallergenic)



Item # 74740

150 softgels

The Possible Benefits of SynovoDerma, a Dietary Supplement

- Supports skin health and the protection of joints*
- Enhances maintenance of moisture levels in elastin and other tissues*
- May facilitate nutrient transport, metabolic waste elimination, lubrication and shock absorption in tissues throughout the body*

Description

SynovoDerma contains hyaluronic acid (HA), an essential compound in the body for maintaining healthy skin and joints.* HA is found in every tissue of the body, especially the synovial fluid, the vitreous humor of the eye, the cartilage, blood vessels, extracellular matrix, skin and the umbilical cord. In the past, exogenous HA was limited in its use due to its high molecular weight, and was only available in injectable and topical form. SynovoDerma is the result of a proprietary, patented enzymatic process, which reduces the molecular weight of the compound to between 50,000-200,000 Daltons, making HA highly absorbable and bioavailable in oral form.* In addition, the low molecular weight may enhance HA's ability to penetrate the lining of synovial cells, increasing HA's ability to support joint health.*

Hyaluronic acid is found in the class of compounds known as glycosaminoglycans (GAG's) and is a lubrication proteoglycan. GAGs are negatively charged, high molecular weight molecules, consisting of repeating disaccharide units forming long, unbranched, linear polysaccharides. They have high viscosity and low compressibility, which makes them ideal for lubricating the joints, while their rigidity underlies cellular structural integrity. The HA disaccharide unit consists of D-glucuronate and N-acetylglucosamine. The most important biological function of HA is its ability to retain water. It is important to note

that this is not the undesirable type of water retention, but the type that is essential for life: our cells must retain fluid to function. By maintaining the proper levels of intracellular water, HA can facilitate the critical cellular functions of toxin and waste elimination, nutrient transport, and absorbing shock.*

HA is a major component of the synovial fluid. The fluid acts as a shock absorber, lubricant, and nutrient transport medium. It is found in the joint cavities, where it nourishes the cartilage, a specialized type of connective tissue that provides strength and flexibility to the body. The backbone of hyaline cartilage (found throughout the body) is HA, which imparts strength to the cartilage. HA is also the GAG that is found in the highest amounts in the extracellular matrix (ECM), which is found between the tissues and fills the space between the cells. Within the skin, the ECM is comprised of GAGs, collagen and elastin. Elastin must be bathed in fluid, and if fluid levels drop in the ECM, elastin becomes dry and brittle. The cells and tissues that have a greater fluid component, such as the ears and eyes, have much higher concentrations of HA. For instance, HA is a major component of the vitreous humor, the clear gelatinous substance that fills the center of the eyes. Other cells and tissues that have a need for increased lubrication and shock absorption, such as the heart and joints, are also higher in HA content.

*THESE STATEMENTS HAVE NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE, OR PREVENT ANY DISEASE.

The turn-over rate of HA in the body varies, depending on the bodily tissues. Within the cartilage, it takes 2 to 3 weeks for the body to metabolize 50% of the HA that is produced on a daily basis, but within the epidermis, it takes less than one day. So as the body ages, it produces less HA but continues to metabolize the same 50%. Eventually, this leads to HA depletion, often first noticed in the skin. Almost fifty percent of total HA is found in the skin, in both the underlying dermis layers and the visible epidermis layer. HA plays a crucial role in facilitating the transport of nutrients to the epidermis, and the elimination of toxins and metabolic waste from the epidermis.* HA may also help the body eliminate the dead outer layer of skin cells (keratinocytes), and modulate the life cycle of skin cells, encouraging them to live longer and be replaced more quickly once they die.* When skin cells survive longer, the epidermis thickens, which prevents buildup of excessive layers of dead skin. Alpha-hydroxy acids and other exfoliating agents are commonly used to achieve this result in skin appearance, but HA does it from the inside out.*

An animal study produced statistically significant results suggesting that SynovoDerma can potentially provide some of the same bodily functions as the body's own naturally produced HA.* Another study undertaken at Ohtsuma University in Japan with 96 women ages 22-65 showed that six capsules of SynovoDerma taken for 45 days promotes an increase in the moisture, smoothness and firmness of the skin.*

HA in topical and injectable form has been used since the 1950's with no significant side effects (except for pain when injected). It is exceptionally well tolerated and does not appear to accumulate in tissues beyond what is therapeutically necessary. Patented, low molecular weight oral HA has been used in Japan and other countries for a number of years, and has demonstrated excellent absorption, bioavailability, safety and efficacy.*

HA is extracted from cockscomb.

Serving Size: 3 Softgels

Servings Per Container: 50

Amount Per Serving:

Hyaluronic Acid Powder (9% min. Hyaluronic Acid)

210 mg

Other ingredients: Rice bran oil, gelatin, glycerin, water, yellow beeswax, titanium dioxide.

Suggested Use: As a dietary supplement, 6 softgels daily for 20 days, then reduce dosage to 3 softgels daily, or as directed by a healthcare practitioner. May be taken with or without food.

References

Asari A, Miyauchi A. Glycoforum.gr.jp Website, Mar 7, 2000.
Goldberg RL, Toole B. Arthritis Rheum, 30(7):769-78, 1987.
Hascall V, Laurent T. Glycoforum.gr.jp Website, Dec, 1997.
Hirto W. Br J Oral Maxillofac Surg, 36(1):35-8, 1998.
Kawasaki K, Ochi M, Uchio Y, Adachi N, Matsusaki M. J Cell Physiol, 179(2):142-8, 1999.
Mazurov VI, Lila AM, Prokop'ev AA, Blokhin MP. Ter Arkh, 64(50:20-4, 1992.
Miyauchi S, Sugiyama T, Machida A, Sekiguchi T, Miyazaki

K, Tokuyasu K, Nakazawa K. J Ocul Pharmacol 6:91-99, 1990.
Nonaka T, et al. J Rheumatol, 27(4):997-1004, 2000.
Stove J, Puhl W. Z Orthop Ihre Grenzgeb, 137(5):393-9, 1999.
Tammi R, et al. J. Invest. Dermatol. 90:412-414, 1988.
Tammi R, Ripellino JA, Margolis RU, Maibach HI, Tammi ML. J. Invest. Dermatol. 92: 326-332, 1989.
Tammi R, Tammi M. Glycoforum.gr.jp Website, Jun 15, 1998.
Yokoi N, Komuro A, Nishida K, Kinoshita S. Br J Ophthalmol, 81(7):533-6, 1997.



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