



CLINICAL APPLICATIONS

- Provides Key Nutrients for Skin, Hair and Nails
- Enhances Collagen Formation
- Thickens and Strengthens Hair and Nails
- Promotes Hormone Balance

WOMEN'S HEALTH

Cosmedix provides several essential vitamins, minerals, and phytonutrients needed to support healthy skin, hair and nails. Cosmedix provides betaine HCL, which helps to promote efficient digestion and assimilation of protein and minerals necessary for hair and nail health. It includes MSM, which provides a bioavailable source of sulfur, for connective tissue integrity. Saw palmetto is added to support normal levels of DHT, known to play a role in the thickness and health of hair. In addition, silica (from horsetail grass extract) is included for its collagen enhancing properties. Each capsule of Cosmedix contains 325 mg MSM, 100 mg betaine HCL and 240 mg saw palmetto. Added support from vitamin A, D3, folic acid, B12, biotin and selenium provide a full spectrum of skin, hair and nail support.

Overview

Healthy skin, hair and nails result from a variety of biological factors, including balanced nutrition and a healthy lifestyle. Collagen, the body's main structural protein, makes up 70% of the skin and is vital in helping to maintain the skin's firmness, suppleness and elasticity, as well as the constant renewal of skin cells.^[1-3] Research has shown collagen production begins to decrease around the age of 18 and continues to decline at a rate of about 1% per year after age 40.^[1] After menopause, skin thickness may decrease at a rate of about 1.13% annually.^[2] Betaine HCL supports optimal protein breakdown, which allows for more efficient manufacturing of collagen, particularly during years of decreased collagen production. MSM provides a source of bioavailable sulfur, an integral nutrient in healthy skin and hair, which plays a key role in collagen regeneration. Together with saw palmetto, which promotes a healthy balance of hormones for optimal hair thickness and health,

and key nutrients such as silica (from horsetail grass extract), biotin and vitamin A, Cosmedix provides a complete spectrum of support for healthy skin, hair and nails.

Betaine HCL[†]

Betaine HCL is a natural substance found in foods such as beets, spinach and grains. It has been used for years to support digestion and absorption due to its ability to prime the acidity of the stomach and enhance digestion.^[4,5] Maintaining optimal acidity in the digestive tract is essential for the complete breakdown of proteins into amino acids. This is a crucial step, in the building of skin and hair proteins, such as collagen. Research also suggests that betaine supports cellular health. Betaine acts as a methyl donor, which supports healthy methionine, homocysteine, and hepatic fat metabolism. Betaine also functions as an osmolyte, supporting cellular integrity and protein balance during fluctuations in hydration and temperature.

Saw Palmetto[†]

Saw palmetto (*Serenoa repens*) has been used historically to support hormone health, as it provides essential fatty acids and phytosterols. Studies have shown saw palmetto promotes hormonal balance via a number of mechanisms, including the inhibition of 5- α -reductase, an enzyme that converts testosterone to 5 α -dihydrotestosterone (DHT).^[6] Excessive levels of DHT have been implicated in hair loss issues. A randomized, double-blind, placebo-controlled trial, which aimed to determine the effectiveness of botanically derived inhibitors of 5-alpha-reductase, found that saw palmetto improved androgen-sensitive hair follicle development in the study group.^[7] Saw palmetto also helps maintain

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hormonal balance by inhibiting the binding of androgens to receptors [8] and promotes inflammatory balance by antagonizing the cyclo-oxygenase and lipoxygenase inflammatory pathways.[9,10] Both of these factors are crucial for maintaining healthy skin.

MSM†

Sulfur, the main ingredient in methylsulfonylmethane (MSM), is the third-most abundant element by weight in the body and plays a major role in maintaining joint and soft tissue health. Sulfur is important for the generation of connective tissues including hair, cartilage, and collagen in skin. Sulfur is also crucial for the production of amino acids, which are the building blocks of protein. Sulfur is required for the synthesis of glutathione, one of the most important antioxidants in the body. High levels of glutathione in the body have been shown to prevent damage caused by free radicals, thought to be the major cause of cellular aging.[11] Studies have demonstrated that MSM is a potent antioxidant and helps modulate cytokine production to support a healthy cycle of inflammation.[12,13]

Directions

3 capsules per day or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors and flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts ^{VI}		
Serving Size 3 Capsules Servings Per Container 30		
3 capsules contain	Amount Per Serving	% Daily Value
Vitamin A (as Palmitate)	5,000 IU	100%
Vitamin D3 (as Cholecalciferol)	50 IU	13%
Folic Acid	400 mcg	100%
Vitamin B12 (as Methylcobalamin)	100 mcg	1,667%
Biotin	500 mcg	167%
Selenium (as Selenium Glycinate Complex)	25 mcg	36%
Methylsulfonylmethane	325 mg	*
Horsetail Grass (aerial portion)	250 mg	*
Saw Palmetto (Standardized to contain 45% Fatty Acids)	240 mg	*
Stinging Nettles Leaf	240 mg	*
Foti Root	200 mg	*
PABA USP (para-aminobenzoic acid)	150 mg	*
Betaine Hydrochloride USP	100 mg	*

* Daily Value not established

ID# 550090 90 Capsules

References

- Shuster S. Osteoporosis, a unitary hypothesis of collagen loss in skin and bone. *Med Hypotheses*. 2005;65(3):426-432.
- Calleja-Agius J, Muscat-Baron Y, Brincat MP. Skin ageing. *Menopause Int*. 2007 June;13(2):60-4.
- Sumino H, Ichikawa S, Abe M, et al. (2004). Effects of aging and postmenopausal hypoestrogenism on skin elasticity and bone mineral density in Japanese women. *Endocr J*. 2004 Apr;51(2):159-164.
- Craig SA. Betaine in human nutrition. *Am J Clin Nutr*. 2004 Sep;80(3):539-49.
- New York University Langone Medical Center. Betaine Hydrochloride. <http://www.med.nyu.edu/content?ChunkID=21560>. Last Reviewed 2011. Accessed March 23, 2012.
- Weisser H et al. Effects of the sabal serrulata extract IDS 89 and its subfractions on 5 alpha-reductase activity in human benign prostatic hyperplasia. *Prostate* 1996; 28(5):300-306.
- Carilla E et al. Binding of Permixon, a new treatment for prostatic benign hyperplasia, to the cytosolic androgen receptor in rat prostate. *J Steroid Biochem* 1984; 20(1):521-3.
- Goepel M et al. Saw Palmetto extracts potently and noncompetitively inhibit human alpha1-adrenoreceptors in vitro. *Prostate* 1999; 38(3):208-15.
- Breu W et al. Anti-inflammatory activity of sabal fruit extracts prepared with supercritical carbon dioxide. In vitro antagonists of cyclooxygenase and 5-lipoxygenase metabolism. *Arzneimittelforschung* 1992; 42(4):547-551.
- Carraro JC et al. Comparison of phytotherapy (Permixon) with finasteride in the treatment of benign prostate hyperplasia: a randomized international study of 1098 patients. *Prostate* 1996; 29(4):231-240.
- Prager N, Bickett K, French N, Marcovici G. A randomized, double-blind, placebo-controlled trial to determine the effectiveness of botanically derived inhibitors of 5-alpha-reductase in the treatment of androgenetic alopecia. *J Altern Complement Med*. 2002 Apr;8(2):143-52.
- Marcel E Nimni, Bo Han and Fabiola Cordoba. Are we getting enough sulfur in our diet? *Nutr Metab (Lond)*. 2007; 4: 24. Published online 2007 November 6.
- Parcell S. Sulfur in human nutrition and applications in medicine. *Altern Med Rev*. 2002 Feb;7(1):22-44.

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