



Hair Growth Factors

Hair, Nails, Skin Formula

DESCRIPTION

Hair Growth Factors, available from Medical Wellness Associates, supplies high dose biotin, methylfolate, vitamin C, zinc, and Cynatine® HNS, a patented, solubilized keratin for the health of hair, nails, and skin. Cynatine® HNS has demonstrated that it can improve the strength, brightness and appearance of hair, nails and skin as well as reduce hair loss associated with washing.†

FUNCTIONS

Keratin is a protein found throughout the body and has an important structural role in skin, hair, nails. This intriguing protein also has one of the highest proportions of the amino acid cysteine, a natural reservoir of sulphur and an antioxidant used in many biological reactions. Much of the structural strength of keratin comes from cysteines, which bridge to form a cystine link. The ability to convert natural keratin into a functional form that is bio-available to the body is a recent breakthrough. A patented process now enables the intact keratin molecule to be solubilized, therefore making it both bioactive and bio-available to the body. Cynatine® HNS is a natural bioactive keratin extracted from premium quality pure New Zealand wool using a unique patented process. Cynatine® HNS has demonstrated that it can improve the strength and appearance of hair as well as reduce hair loss associated with washing. It has also been shown to be capable of supporting healthy skin aging as well as improving the strength and luster of nails. A major component of the skin moisture barrier is cysteine-rich keratin. Damage to the keratin in this barrier can also result in increased skin wrinkles. In vitro studies show Cynatine® HNS supports cell proliferation and protein synthesis of human skin keratinocytes. Cell proliferation is used as a marker of cell growth and turnover. A clinical study was performed on Cynatine® HNS which showed that after 90 days, hair loss from washing was reduced by 30%, hair strength was improved by 12%. Additionally, participants reported improvements in both the shine and brightness of their hair. The ability of Cynatine® HNS to protect the skin from oxidative stress has been determined through a combination of in vitro and in vivo measurement. Experimental data reveals that

ingested Cynatine® HNS helps to build the cells' glutathione supply, resulting in an increase in serum levels of glutathione-dependent peroxidase.

Vitamin C (ascorbic acid) has numerous biological functions. Foremost, it is essential for the synthesis of collagen and glycosaminoglycans which are the building materials of all connective tissues, such as skin, blood vessels, tendons, joint cartilage and bone. Vitamin C is the required coenzyme for two groups of enzymes that catalyze the crosslinking of collagen fibers - lysyl hydroxylases and prolyl hydroxylases. As such, vitamin C is essential for normal wound healing and capillary health.

Zinc is important for growth, immune system function, protein synthesis, antioxidant mechanisms, and wound healing. Both zinc and copper, once bound to either a protein or peptide, have been shown to be very effective in regenerating new tissue and increasing the synthesis of structural proteins like collagen.

Biotin is a B vitamin that is found in small amounts in numerous foods. Biotin deficiency is difficult to detect because of the lack of assay techniques to determine biotin concentrations in the blood. Symptoms of deficiency include thinning of the hair, frequently with loss of hair color, and red scaly rash around the eyes, nose, and mouth. Biotin supplementation after 5 months has been clinically shown to support nail firmness and thickness and to reduce splitting in several studies.

Folate is another B vitamin that is essential for tissue growth and cellular functions. Hair Growth Factors uses Metafolin® folate, a brand name L-methylfolate form that the body readily utilizes without the conversion of folic acid to L-methylfolate. Clinical evidence indicates that the bioavailability of Metafolin® is superior to folic acid. PABA supports the appearance of healthy hair, through its effects on melanin metabolism. Melanin, or pigment, is a substance that gives hair and skin its color.

INDICATIONS

Hair Growth Factors are indicated as a dietary supplement to enhance one's overall health and appearance of hair, nails, and skin.

(continue on reverse)

FORMULA (#201345-90X)

Serving size 3 vegetarian capsules

Vitamin C250 mg
(as Ascorbic Acid)
Folate200 mcg
(as L-Methylfolate, Metafolin®)
Biotin6,000 mcg
Zinc (Krebs*).....25 mg
Cynatine® HNS500 mg
(soluble keratin)
PABA75 mg
(Para-Aminobenzoic Acid)
Lemon Bioflavonoid Complex.....75 mg
Other ingredients: Hydroxypropyl methylcellulose
(capsule), dicalcium phosphate, cellulose, vegetable
stearate and silica
*Krebs = Citrate, Fumarate, Malate, Glutarate and
Succinate Complex.

SUGGESTED USE

Adults take 3 capsules daily or as directed by your health care professional. This product is best taken with food.

SIDE EFFECTS

No adverse effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

Sano T, Kume T, Fujimura T, Kawada H, Moriwaki S, Takema Y. The formation of wrinkles caused by transition of keratin intermediate filaments after repetitive UVB exposure. *Arch Dermatol Res.* 2005 Feb;296(8):359-65.
Matsuo M, Ikeda H, Sugihara T, Horiike S, Okano Y, Masaki H. Resistance of cultured human skin fibroblasts from old and young donors to oxidative stress and their glutathione peroxidase activity. *Gerontology.* 2004 Jul-Aug;50(4):193-9.
Food and Nutrition Board, Institute of Medicine. *Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline* (2000). Washington, DC: National Academy Press, 2000
Floersheim GL. Treatment of brittle fingernails with biotin. *Z Hautkr* 1989;64:41-8 [in German].
Hochman LG, Scher RK, Meyerson MS. Brittle nails: response to daily biotin supplementation. *Cutis* 1993;51:303-5.
Antony AC. Megaloblastic Anemias. In: Hoffman R, Benz Jr EJ, Shattil SJ, et al. *Hematology: Basic Principles and Practice.* 3rd ed. New York, NY: Churchill Livingstone 2000: 451-79.
Zarafonitis CJ. Darkening of gray hair during para-amino-benzoic acid therapy. *J Invest Dermatol* 1950;399-401.

† 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.

Medical Wellness Associates
6402 Route 30
Jeannette, Pa 15644
1-800-834-4325
www.vitamincoach.com