



## HSN COMPLETE™

HELPS TO MAINTAIN HEALTHY HAIR, NAIL, MUCOUS MEMBRANES, AND SKIN

120 VEGETARIAN CAPSULES | NPN80087390 | HSN120-CN

H-S-N Complete™ is a comprehensive formula which combines a wide array of vitamins, minerals, amino acids, and botanicals in order to provide building blocks necessary for healthy hair, skin and nails. While many think of the hair, skin and nails as only cosmetic, they actually have valuable functions, primarily for protection.

The skin is the human body's largest organ. Its most obvious function is to provide protective covering for the body. Through perspiration the skin also plays a role in regulating the body's temperature and eliminates toxins. The function of the hair is not quite as discernible, but it appears to also provide a layer of protection. For instance, hair on the head helps to protect against overexposure to sunlight, while eyebrows and eyelashes work to keep sweat and debris out of our eyes. Nails, which are actually a part of the epidermis (skin's outer layer), help protect the sensitive tips of fingers and toes and assist with dexterity. Nails can also be indicators of health status (e.g., spoon-shaped nails can be indicative of iron-deficiency anemia).

### KERATIN AND COLLAGEN

Hair, skin and nails all contain the fibrous protein keratin, which is rich in sulfur-containing amino acids, especially cysteine. Keratin is a filament-forming protein whose molecules are entwined around each other in long filaments that are cross-linked by bonds between sulfur atoms. This twining and cross-linking is dependent on various nutrients, and gives the keratin structures their strength.

Collagen is a fibrous protein and a primary constituent of the body's connective tissue. It is a main component of hair, skin, and nails and serves vital functions, such as supporting skin elasticity. With a decrease in skin elasticity (often seen with age), the skin can wrinkle and break down.

Collagen is comprised of various amino acids; two main amino acids are glycine and proline, both found in H-S-N Complete™. This formula is also rich in vitamin C and the B vitamins, as they are all essential for healthy connective tissue and collagen metabolism. The MSM (methylsulfonylmethane) and N-Acetyl-Cysteine in H-S-N Complete™ are sulfur-containing compounds, while our bamboo extract is standardized to contain 40% silica. Both sulfur and silica are necessary for the formation of collagen.

### HIGHLIGHTS

#### Green Tea Extract

Polyphenols in green tea may help to protect against UVB light-induced skin disorders and DNA damage.<sup>1</sup>

EGCg has been shown to modulate androgenic activity, helping to support androgenetic alopecia (male pattern baldness) and hormonal-related acne.<sup>2</sup> This appears to occur due to the selective inhibition of 5-alpha-reductase activity by EGCg.

#### Olive Fruit Extract (as Hytolive®)

Hytolive® is standardized to contain 10% hydroxytyrosol, which is one of the olive fruit's most important polyphenols and boasts potent antioxidant properties. Hydroxytyrosol's strong antioxidant abilities appear to help support skin health by protecting keratinocytes against the damaging effect of ultraviolet (UV)-derived oxidative stress.<sup>3,4</sup>

**Bamboo Extract** (*Bambusa vulgaris*) is standardized to contain 40% silica. The element silicon is not officially recognized as an essential mineral and dietary content is variable since few foods provide significant amounts (such as oats, barley and some rice fractions). Silicon has been recognized as essential in stabilizing the collagen structures, reducing its breakdown, thus supporting improved quality of all connective tissues. Research shows that supplementation with silicon yields many potential benefits such as improved skin quality (30% reduced wrinkle depth) and hair quality (+12.8% thickness, +13% strength) as well as reduced nail brittleness.<sup>5</sup> This formula provides a plant-derived silicon form in a dose equivalent to that used in research.

## Vitamins A and D

**Vitamin A** is a powerful antioxidant that helps support the immune system and prevents oxidative stress from free radicals which can be damaging to the skin. It is essential for the maintenance and repair of tissue, such as skin.

**Vitamin D** is a steroid hormone that modulates growth and differentiation of keratinocytes.<sup>6</sup> Vitamin D also plays a role in hair follicle growth, making it a critical vitamin for the regeneration of hair.<sup>7</sup>

## Albion® Chelated Minerals for superior absorption – Zinc, Copper, Manganese

**Zinc** – Substantially high levels of zinc are found in the skin, especially in the epidermis. It helps to maintain the integrity of the skin; many dermatologic conditions are associated with zinc insufficiency. Zinc is also well known for its wound healing support.

**Copper** is involved in the formation of cross-links in collagen and elastin (protein found in collagen).<sup>8</sup>

**Manganese** is necessary to activate the enzyme prolydase, which provides the amino acid proline (found in H-S-N Complete™) for collagen formation.<sup>9</sup>

**Biotin** helps to increase nail plate thickness in those with brittle nails.<sup>10-12</sup>

**Grape seed** is standardized to contain 95% proanthocyanidins, which possess growth-promoting activity in hair epithelial cells according to animal studies.<sup>13</sup>

## H-S-N COMPLETE™ MAY:

- Support skin elasticity
- Help with brittle nails
- Provide antioxidant support for hair, skin and nails
- Help strengthen hair, skin and nails
- Support healthy keratin

Consider combining with OmegAvail™ Synergy for essential fatty acid support.

## Medicinal Ingredients (per capsule):

N-Acetyl-L-cysteine.....	125 mg
Vitamin C (Ascorbic acid) .....	125 mg
Glycine (Aminoacetic acid).....	75 mg
Green tea extract ( <i>Camellia sinensis</i> , Leaf) (98% Polyphenols, 45% Epigallocatechin 3-gallate, 40:1, QCE 2500 mg) .....	62.5 mg
L-Lysine .....	62.5 mg
L-Proline .....	62.5 mg
MSM (Methylsulfonylmethane, Dimethyl sulfone).....	62.5 mg
Grape ( <i>Vitis vinifera</i> , Seed) (95% Proanthocyanidins).....	50 mg
Olive ( <i>Olea europaea</i> , Fruit) (10% 3,4-Dihydroxyphenylethanol, 400:1, QCE 10 g).....	25 mg
Pantothenic acid (Calcium D-pantothenate) .....	25 mg
Common bamboo ( <i>Bambusa vulgaris</i> , Stem) (40% Silicon, 10:1, QCE 212.5 mg) .....	21.25 mg
Mixed carotenoids (Mixed carotenoids, <i>Elaeis guineensis</i> - Fruit) .....	14.4 mg
Niacinamide.....	12.5 mg
Vitamin B1 (Thiamine, Thiamine hydrochloride).....	12.5 mg
Vitamin B2 (Riboflavin) .....	12.5 mg
Vitamin B6 (Pyridoxal 5'-phosphate, Pyridoxine hydrochloride) .....	12.5 mg
Zinc (Zinc bisglycinate).....	7.5 mg
Copper (Copper (II) bisglycinate).....	500 mcg
Manganese (Manganese (II) bisglycinate) .....	500 mcg
Biotin.....	250 mcg
Folate (L-5-Methyltetrahydrofolate, <i>Spinacia oleracea</i> - Leaf) .....	50 mcg
Vitamin B12 (Methylcobalamin).....	25 mcg
Vitamin D (Cholecalciferol).....	12.5 mcg (500 IU)

**Non-Medicinal Ingredients:** Hypromellose, magnesium stearate (vegetable source), silicon dioxide. **Recommended Dose:** Adults: Take 2 capsules daily or as otherwise recommended by a health care practitioner. Take with food a few hours before or after taking other medications or natural health products. For use beyond 12 weeks, consult a health care practitioner.

## REFERENCES

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