

FUNCTIONALAB

BEAUTY NUTRITION

Age Defense Skin damage defense*

DESCRIPTION

A blend of active nutrients that helps fight premature aging of the skin and acts at the cellular level to promote a youthful, healthy skin tone.*

FUNCTIONS

Oxygen is a vital element. The oxygen we breathe is transmitted, through blood circulation, to each organ and tissue to be ultimately utilized through cellular respiration. Channeling down the various histological levels, O₂ is then molecularly “breathed” by cells to sustain their metabolic functions so that tissues and organs can function normally. However, cellular respiration generates metabolic wastes in the form of highly reactive free radicals or reactive oxygen species (ROS). When left to themselves, ROS will transfer their “electrical” energy to proteins, lipids and also DNA provoking metabolic and structural stress. This oxidative burden caused by our own cell activity tends to increase with age and has also been identified as one of the causative factors of the aging process itself. To add fuel to fire, the production of natural antioxidants by our body undergoes an age-dependent diminution. Increase in ROS and decreased efficacy of the antioxidant defense team up to hasten the premature appearance of signs of aging that is striking on the skin. **Age Defense** comes to the rescue with its battalion of natural antioxidants to complement our own ROS-scavenging system. Thanks to the action of its components, **Age Defense** might help reducing the speed at which we see sand particles going down the hourglass.

Aging is an inevitable process of life. However, cutting-edge research has shown that it was possible to do something about it; the notion of healthy aging was born. Oxygen is essential for life. It is used as a molecular combustible by our cells in the synthesis of nutrients and the creation of energy necessary for normal function of all organs of the body. However, as oxygen is being burned out by little furnaces called mitochondria located in the heart of our cells, wastes are generated. The so-called metabolic waste coming from mitochondrial respiration takes the form of free radicals: atomic-size particles electrically charged and highly reactive. This explains the term ROS that has been coined by scientists. ROS are chemically reactive particles that can cause

damage to proteins, lipids and DNA. In the skin, the deleterious action of ROS will negatively affect cell membranes, the fibrillar structure of collagen and elastin, and the integrity of lipids involved in the epidermal barrier function. Ultimately, damage caused by ROS becomes irreversible and may lead to functional and structural alterations. The action of ROS can be exemplified by the steel bullet of a pinball machine moving in unpredictable directions hitting and bouncing off scoring targets. However, instead of accumulating points, each cellular hit of ROS will increase the aging score on our cutaneous display. Indeed, it is widely accepted in the scientific community that ROS may be one of the causal factors driving the aging process. The outcome is obviously readily visible at the skin level. Fortunately, our body has developed effective strategies to detect and detoxify ROS limiting collateral damage. The anti-ROS approach elaborated by our cells consists of using antioxidants such as vitamin C, vitamin E, superoxide dismutase (SOD) and glutathione peroxidase to name only a few. The aim of this antioxidant guard is to buffer the damage induced by free-radicals and ROS thereby preserving the integrity of cellular functions. However, as we age, the efficacy of our antioxidant strategy becomes less. Indeed, we assist to an age-dependent decrease in the production of antioxidants. Obviously, this situation makes all our cells, tissues and organs more prone to ROS attacks. The ultimate consequence is the premature appearance of signs of aging.

Age Defense formula is like a duplicate of our own antioxidant system; the one developed by our own cells. For example, it contains vitamin C and vitamin E, SOD, glutathione peroxidase, bioflavonoids, and other important cofactors to support the synthesis of antioxidant molecules. **Age Defense** can help reestablishing the population of vitamin E—the most important liposoluble antioxidant in the skin—that becomes largely depleted upon skin exposure to UV radiation. The supply in SOD by **Age Defense** is attractive based on previous results showing that, in a specific experimental model, this antioxidant enzyme increased lifespan. The ingenious formulation of **Age Defense** acts as a free radical and ROS quencher, reinforcing and equilibrating our own skin antioxidant system.

FORMULA

Three Capsules Contain:

Vitamin C.....	250	mg
(Ascorbyl Palmitate/Calcium Magnesium Ascorbate Complex)		
Bioflavonoids.....	200	mg
(Lemon)		
Hesperidin.....	20	mg
Rutin.....	10	mg
Pycnogenol.....	25	mg
Vitamin E.....	150	I.U.
(d-alpha Tocopheryl Succinate)		
Beta-Carotene.....	10,000	I.U.
(Vitamin A Activity)		
Vitamin B-1.....	40	mg
(Thiamin HCl)		
Vitamin B-2.....	20	mg
(Riboflavin/Riboflavin-5-Phosphate)		
Vitamin B-3.....	20	mg
(Niacin 10 mg and Niacinamide 10 mg)		
Vitamin B-5.....	40	mg
(Pantothenic Acid/Pantothine)		
Vitamin B-6.....	20	mg
(Pyridoxine/Pyridoxal-5-Phosphate)		
Inositol.....	50	mg
Choline Citrate.....	100	mg
Zinc.....	15	mg
(Picolinate)		
Selenium.....	50	mcg
(Krebs [†])		
Glutathione.....	50	mg
N-Acetyl-L-Cysteine.....	200	mg
L-Methionine.....	20	mg
Dimethylglycine HCl.....	25	mg

In a base of specially selected Young Sprouts supplying Superoxide Dismutase, Catalase and Glutathione Peroxidase. Low Allergenicity-Free of Wheat Gluten

†Krebs=Citrate, Fumarate, Malate, Glutarate and Succinate Complex

SUGGESTED USE

Adults take 1 capsule 3 times daily with meals or as directed.

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.

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***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.**