




NUTRIKOSM
PARIS · BARCELONA

NKCOLLAGENBOOSTER
WITH COLLAGEN AND GLYCOSAMINOGLYCANS



REJUVENATE YOUR SKIN
FROM THE **INSIDE** TO SEE
RESULTS ON THE **OUTSIDE**.

WITH **COLLAGEN**  **AND GYCOSAMINOGLYCANS.**

WHAT YOU SHOULD KNOW ABOUT YOUR SKIN

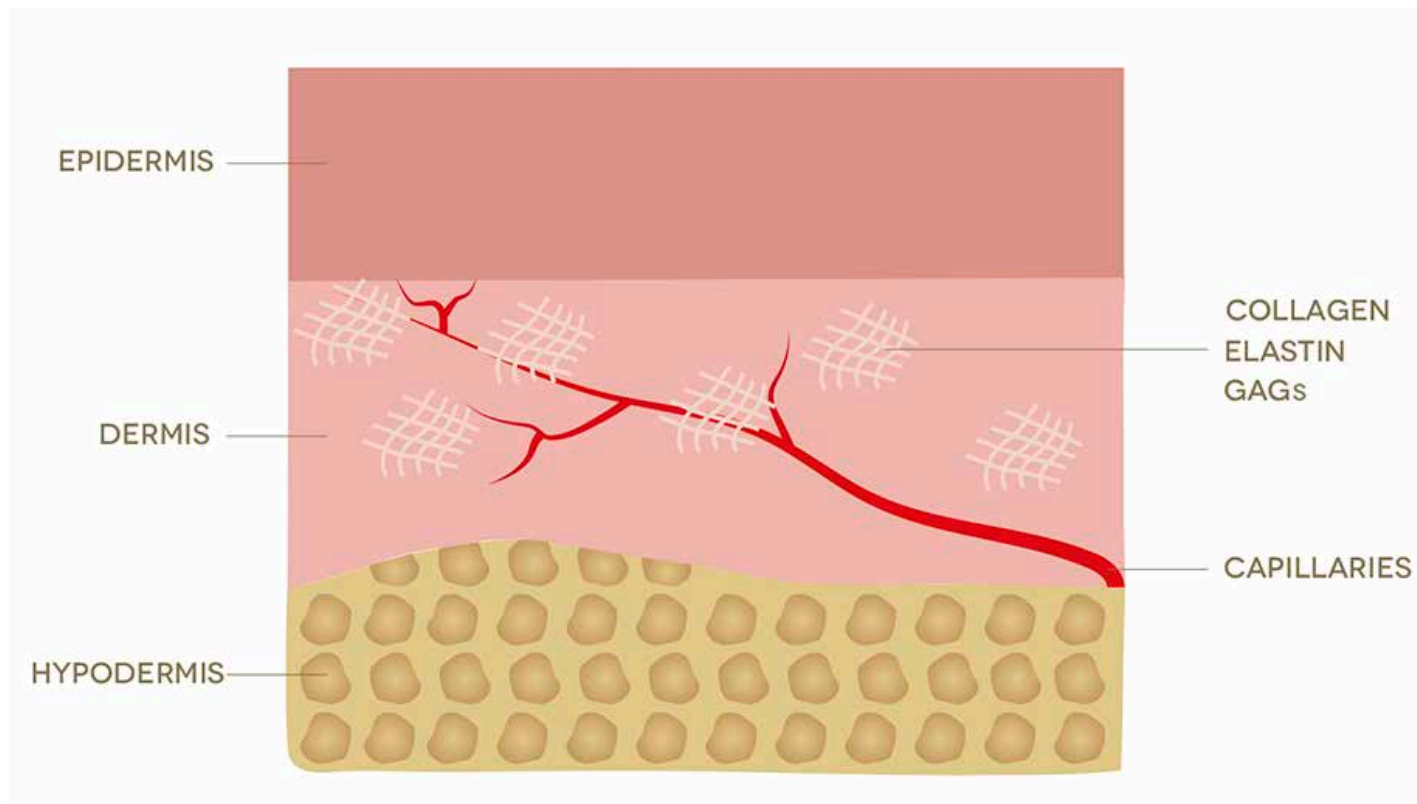
The skin is the largest organ in the human body and plays an active role in vital life functions. The skin comprises three layers: the **epidermis**, **dermis** and **hypodermis**.

The **epidermis** is the outer layer, an avascular tissue which works as a protective barrier against aggressive external agents. It is a flat epithelium which is constantly undergoing cornification. Since the epidermis is avascular, the dermis is the layer in charge of maintaining and spreading nutrients.

The **dermis** is a vascularised connective tissue primarily comprising a fibroblast structure interlinked with a mesh of collagen fibres, elastin and glycosaminoglycans (GAGs) such as hyaluronic acid. The fibroblasts synthesise the collagen and elastin and give the skin its flexibility and elasticity.

The **hypodermis** is the deepest layer in the skin and comprises soft connective tissue due to the presence of fatty tissue. Its primary function is insulation and storage.

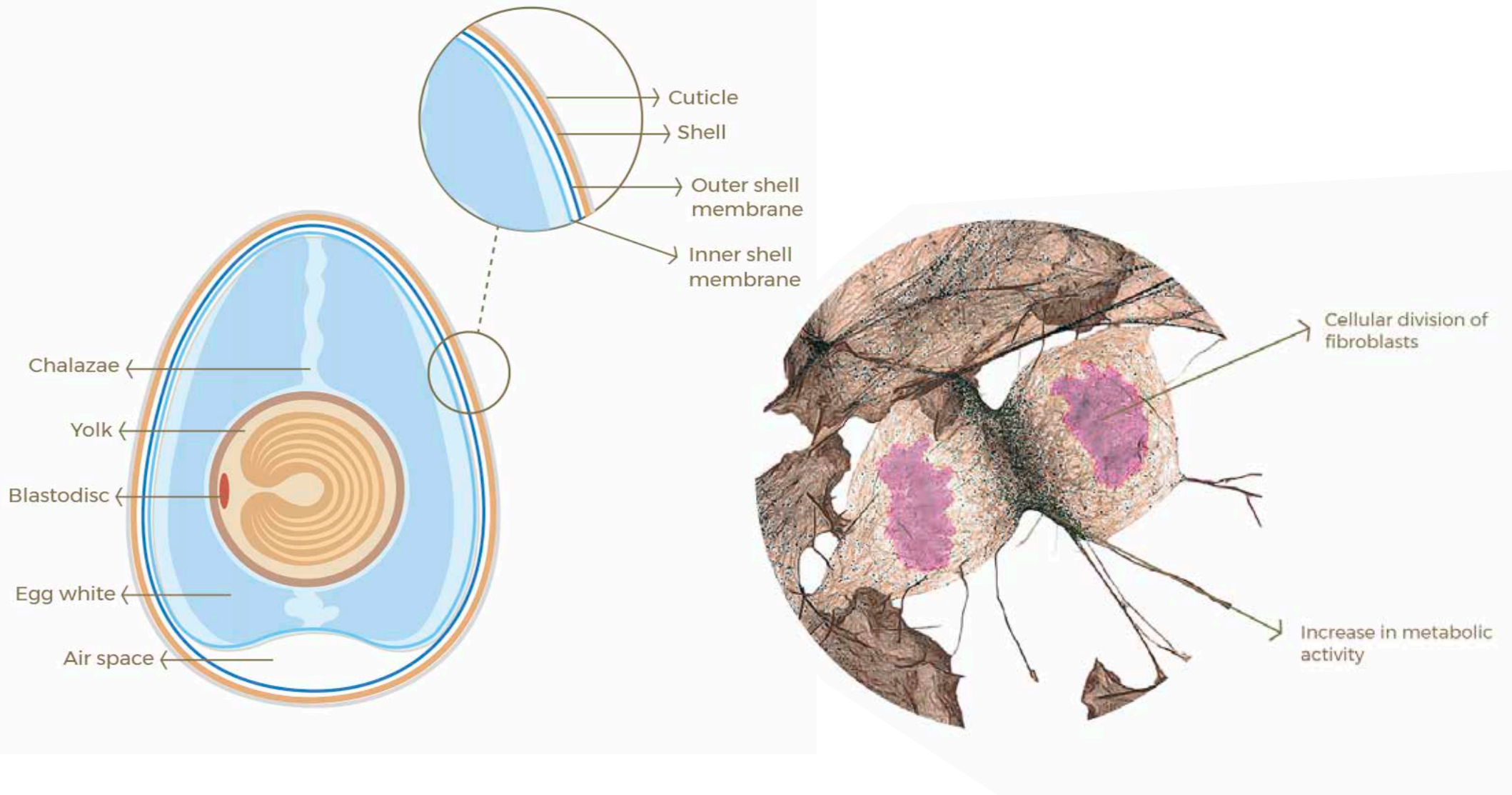
The skin is the physical, biological and immunological barrier which protects the body from external agents. Any alteration in the skin will produce an increase in the sensitivity to UV rays and an exponential increase in the risk of infection.



HOW DOES **NKCOLLAGEN** BOOSTER WORK?

NK Collagen Booster is a natural product which contains collagen, glucosamine, GAGs y keratin amongst other components. Tests have shown that eggshell membranes have the ability to accelerate the cellular division of fibroblasts and increase their metabolic activity, improving collagen production.

Eggshell membranes are also effective in reducing the harmful effects of UV rays and skin inflammation.



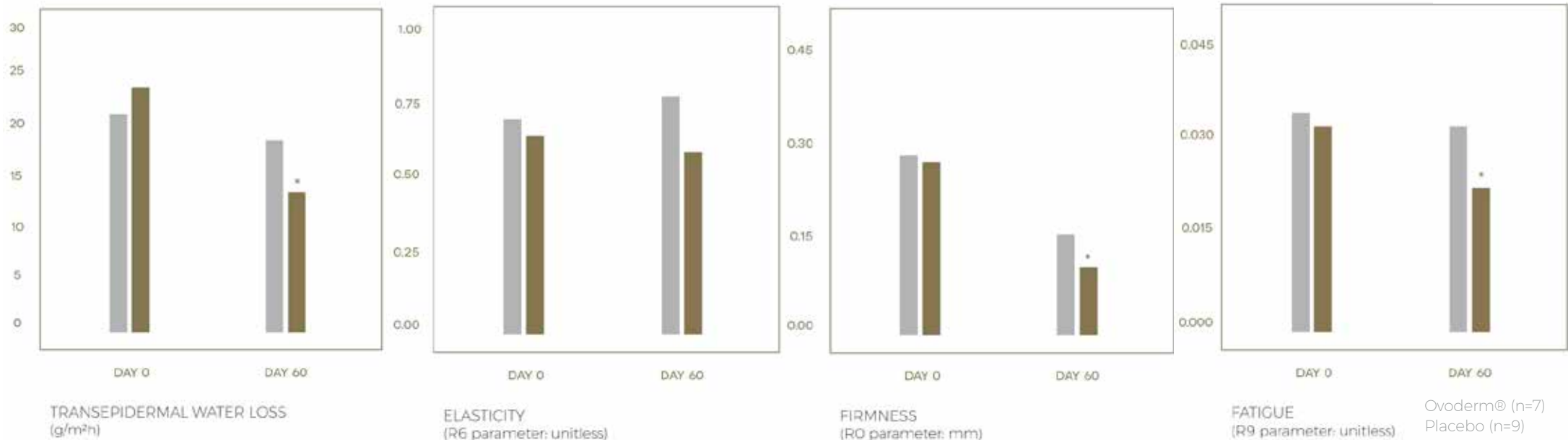
THE UNDERLYING SCIENCE

The tool generally used to measure the effectiveness of the skin barrier is the transepidermal water loss (TEWL) test. It measures the normal permeability of water through the stratum corneum (SC) to the atmosphere.

EFFECT OF USING NK COLLAGEN BOOSTER WITH OVODERM® EVERYDAY ON THE SKIN'S HYDRATION, ELASTICITY, FIRMNESS AND FATIGUE

$P \leq 0,05$
compared to
the base line

Ovoderm®
Placebo



A random, double-blind and unicentric clinical-nutritional trial served to study the effectiveness of ingesting **NK Collagen Booster** on a daily basis. The latter contains 300 mg de Ovoderm®. Study participants included 16 volunteers between the ages of 45 and 75 who were randomly assigned to one of two groups: 7 to Ovoderm® and 9 to the control group.

After 60 days of treatment, the group using **NK Collagen Booster** saw a significant drop in results, from 0.656 on day 0 to 0.569 on day 60. This represents a 13.3% improvement in the skin's elasticity thanks to our product. This compares to a 11.3% reduction in the control group after 60 days.

Consuming **NK Collagen Booster**, demonstrated a statistically significant change of 0.264 mm from day 0 to 0.09 mm on day 60. This first group improved skin firmness by 65.8% compared to control group for whom skin firmness improved by only 44.6%.

There was also a statistically significant improvement in reduced skin fatigue. The test group taking **NK Collagen Booster** registered 0.031 mm on day 0 and 0.021 mm on day 60, representing a 35.62% change. This compares to the control group which registered no statistically significant change.

THE UNDERLYING SCIENCE

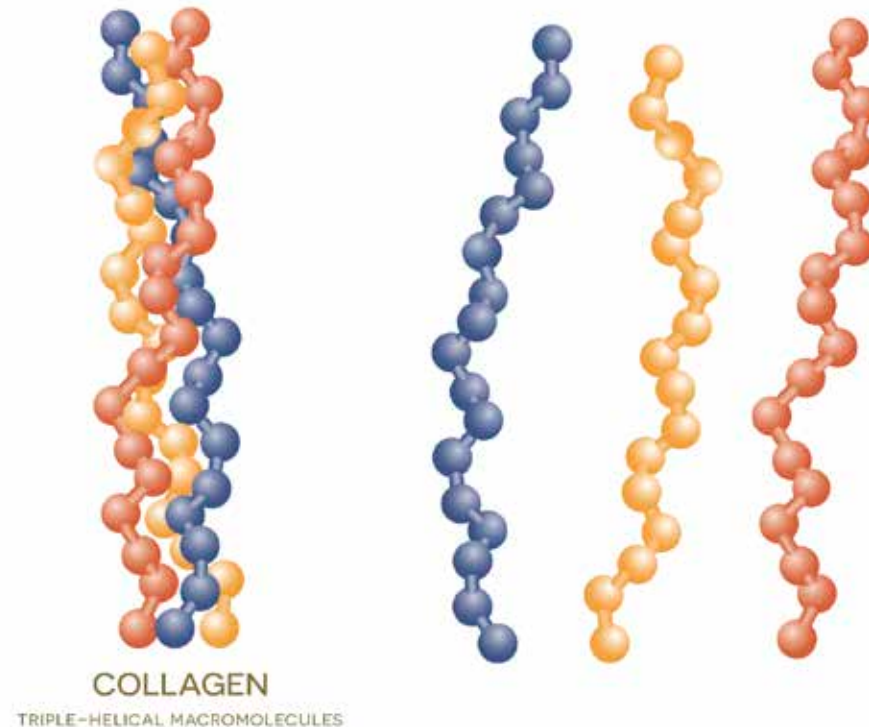
Collagen is the most abundant protein in the animal kingdom and is found in virtually all organs and tissues, to which provides the framework that gives structural shape and consistency.

Collagen is practically a **microfibril skeleton that supports the structure of all organs and viscera of the organism**. Its fibers form the matrix of bones, make up the bulk of tendons and are the main component of the skin.

The knowledge of the molecular structure, biosynthesis, assembly and regeneration of collagen is of great importance: it presents a unique secondary structure of proteins, forming **the collagen helix**. This **helix** is made up of units called tropocollagen. A characteristic of these structures is their composition in terms of amino acids, which follows the same pattern for all chains, showing preferences for **proline, hydroxyproline** and **lysine**. **Glycine** is the smallest and only amino acid capable of being placed inside the helix of collagen.

NK COLLAGEN BOOSTER contains **proline, lysine and glycine**, so it helps to increase the production of collagen fibers type I and II, favoring the production and resistance of tissues including bones, cartilage, gums, skin, tendons and blood vessels.

It also contains **Vitamin C**, a coenzyme for three different dioxygenase enzymes, which catalyze the addition of hydroxyl groups to the proline and lysine amino acids of the collagen molecule to stabilize the triple helix structure.



NK COLLAGEN BOOSTER AT A GLANCE

- ▶ Helps to hydrate the skin and reduce fatigue
 - ▶ Improves the skin's elasticity and firmness
 - ▶ A single capsule contains the daily dose required
 - ▶ 100% natural and made from plants
 - ▶ Not genetically modified
 - ▶ Uses enviromentally-friendly extraction methods
 - ▶ Gluten free
 - ▶ Approved as a dietary supplement in Europe and the US
-





El **NK Collagen Booster** is a dietary supplement designed to provide the necessary amount of collagen in the body. It includes OVODERM® and amino acids such as proline, lysine and glycine that make up the triple helix of collagen. It also contains vitamin C that strengthens the triple helix providing firmness, elasticity and helping to reduce skin fatigue.

INGREDIENTS	PER STICK mg	NRV (%)*
L-LYSINE	800	-
L- PROLINE	800	-
GLYCOSINE	1600	50
VITAMINA C	80	100
OVODERM	300	50

NK COLLAGEN BOOSTER



PACKAGING

Primary: silk screened sticks.

Secondary: cardboard box. One month treatment.

INGREDIENTS

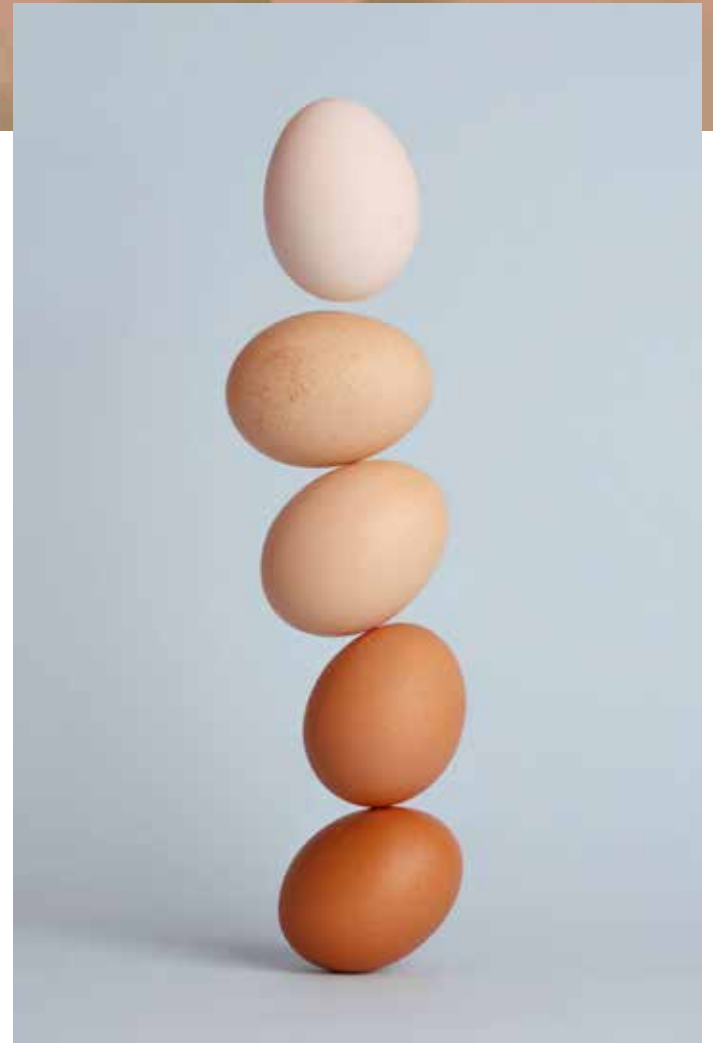
Glycine, L-lysine, L-proline, Ovoderm®, Vitamin C, color, flavour, sweetener: erythritol.

ALERGENS

Does not contain any allergens.

OVODERM®

Egg membranes also play a role in cell growth and differentiation and maintaining its vital functions.





NKCOLLAGEN FORMULA

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1. Champion RH, Burton JL, Ebling FJG. Textbook of Dermatology (Rook, Wilkinson, Ebling eds), 5th ed. Oxford, UK: Blackwell Scientific Publications 1992.

2. Bensadoun RJ, Humbert P, Krutman J, et al. Daily baseline skin care in the prevention, treatment and supportive care of skin toxicity in oncology patients: recommendations from a multinational expert panel. *Cancer Manag Res* 2013;5:401-8.

3. Dreno B, Bensadoun RJ, Humbert P, et al. Algorithm for dermatocologic use in the management of cutaneous side-effects associated with targeted therapy in oncology. *J Eur Acad Dermatol Venereol* 2013;27:1071-80.

4. Fluhr JW, Feingold KR, Elias PM. Transepidermal water loss reflects permeability barrier status: validation in human and rodent in vivo and ex vivo models. *Exp Dermatol* 2006;15:483-92.

5. Proksch E, Schunck M, Zague V, et al. Oral intake of specific bioactive collagen peptides reduces skin wrinkles and increases dermal matrix synthesis. *Skin Pharmacol Physiol* 2014;27:113-9.

6. Schwartz SR, Park J. Ingestion of BioCell Collagen (®), a novel hydrolysed chicken sternal cartilage extract; enhanced blood microcirculation and reduced facial aging signs. *Clin Interv Aging* 2012;7:267-73.

7. Asserin J, Lati E, Shioya T, et al. The effect of oral collagen peptide supplementation on skin moisture and the dermal collagen network: evidence from an ex vivo model and randomized, placebo-controlled clinical trials. *J Cosmet Dermatol* 2015;14:291-301.

8. Proksch E, Segger D, Degwert J, et al. Oral supplementation of specific collagen peptides has beneficial effects on human skin physiology: a double-blind, placebo-controlled study. *Skin Pharmacol Physiol* 2014;27:47-55.

9. Wang B, Wang YM, Chi CF, et al. Isolation and characterization of collagen and antioxidant collagen peptides from scales of Crocine Croaker (*Pseudosciaena crocea*). *Mar drugs* 2013;11: 4641-61.

10. Proksch E, Segger D, Degwert J, et al. Oral supplementation of specific collagen peptides has beneficial effects on human skin physiology: A double-blind, placebo-controlled study. *Skin Pharmacol Physiol* 2014;27: 47-55.

11. Borumand M, Sibilla S. Effects of a nutritional supplement containing collagen peptides on skin elasticity, hydration and wrinkles. *J Med Nutrition and Nutraceuticals* 2015;4:47-53.

12. Liang J, Pei X, Zhang Z, et al. The protective effects of long-term oral administration of marine collagen hydrolysate from Chum Salmon on collagen matrix homeostasis in the chronological aged skin of Sprague-Dawley male rats. *J Food Sci* 2010;75: H230-H238.

13. Haratake A, Watase D, Fujita T, et al. Effects of oral administration of collagen peptides on skin collagen content and its underlying.