



RHEODERM®
hyaluronic acid and N-acetylcysteine



LOOK YEARS YOUNGER WITHOUT INJECTION

Rheoderm is an orally administered product that reduces the appearance of wrinkles and restores the skin's volume



WHAT IS RHEODERM®?

RHEODERM® is an orally administered product indicated to reduce the appearance of wrinkles and and-restore the skin's volume.

RHEODERM® delivers a substantial quantity of hyaluronic acid inside the skin-to increase skin hydration, elasticity and density.

RHEODERM® also contains N-acetylcysteine which decreases oxidative stress and protects against cellular damage.

The overall result is a plumping effect and a healthy, younger looking skin.

RHEODERM® - Skin anti-aging treatment

- + Clinically proven
- + First results after 1 week
- + Suitable for vegan diets
- + Pharmaceutical-grade ingredients


RHEODERM®
hyaluronic acid and N-acetylcysteine

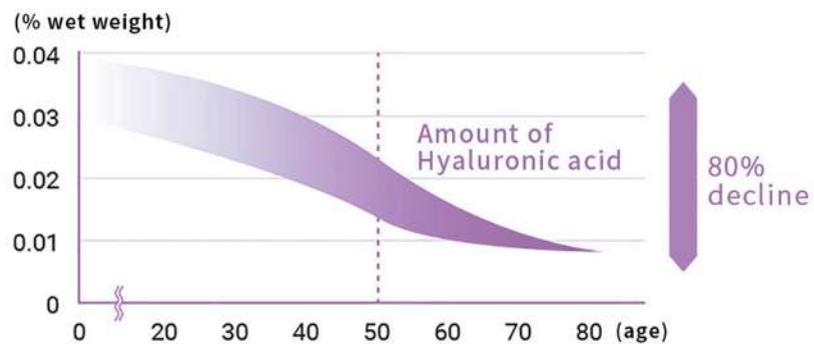
- Plumping effect
- Skin revitalization
- Antioxidant action

WHAT IS HYALURONIC ACID ?

Hyaluronic acid (HA), a major component of the skin, is fundamental to retain water and maintain healthy skin tone, elasticity, and a smooth, youthful appearance.(1)

However, aging and extrinsic stimuli such as solar ultraviolet radiation, smoking, and air pollutants gradually reduces the amount of HA in the skin. (2-5) The skin loses elasticity and firmness, becomes thinner and dry, and fine lines appear on its surface. Therefore, correcting this loss of HA is an essential component of an anti-aging strategy.

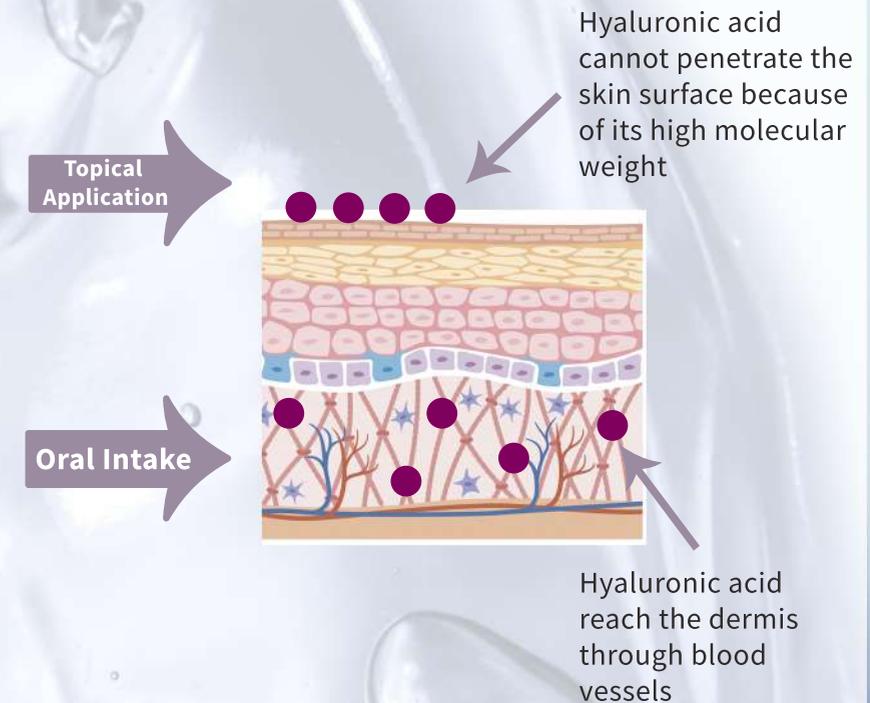
Loss of hyaluronic acid in the skin with age



M O Longas et al. Evidence for structural change in dermatan sulfate and hyaluronic acid with aging: Carbohydrate Research. 1987 Jan 15;159(1):127-36.

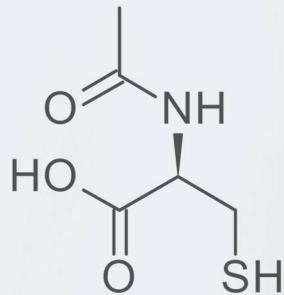
As the molecular weight of HA is relatively high, its penetration in the skin is very problematic when topically applied, and HA-based creams, lotions and serums will only moisturize the superficial layers of the skin. On the contrary, when orally administered, 90% of the ingested HA is absorbed into the body and migrate into connective tissues, such as skin (6-8).

HA will then increase water in the skin and stimulates collagen, HA and proteoglycan synthesis as demonstrated in several clinical studies. (9-13) As the result, HA will provide a durable and deep skin hydration with a plumping effect.



WHAT IS N-ACETYLCYSTEINE ?

N-acetylcysteine (NAC) is widely used as an antidote to acetaminophen overdose (14) and its administration has been reported to be beneficial in various medical fields such as dermatology, neurology, gastroenterology, nephrology and pulmonology. Its effectiveness is largely based on the free radical scavenging property of NAC.



Supplementation with NAC significantly increases the levels of intracellular glutathione, the body's major anti-oxidant (15). Glutathione is critically important for detoxifying an array of toxic substances and free radical-generating molecules. It thereby exerts a profound protective effect on cells. (16)

As this powerful antioxidant is frequently depleted in patients with stress and aging, RHEODERM will replenish glutathione levels and will thus decrease oxidative stress and cellular damage.

THE WINNING COMBINATION

Hyaluronic acid
300 mg

+

N-acetylcysteine
600 mg

SPECIFICATIONS

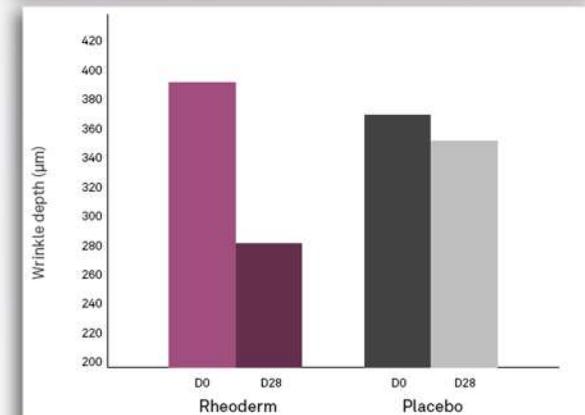
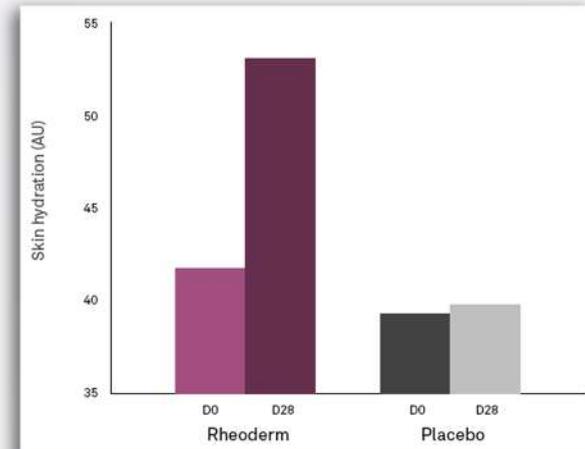
 RHEODERM hyaluronic acid and N-acetylcysteine	
COMPOSITION	HYALURONIC ACID AND N-ACETYLCYSTEINE
HA CONTENT	300 MG PER 2 CAPSULES
NAC CONTENT	600 MG PER 2 CAPSULES
INDICATION	FOR SKIN HYDRATION, ELASTICITY AND DENSITY
EFFECTS	REDUCES WRINKLES AND RESTORES THE SKIN'S VOLUME
ADMINISTRATION	ORAL
DOSAGE	2 CAPSULES DAILY
ONSET OF EFFECTS	1 WEEK OF REGULAR INTAKE
DURATION OF EFFECTS	UP TO 3 MONTHS AFTER THE LAST INTAKE
PACKAGING	BOTTLE OF 120 CAPSULES
STORAGE	AT ROOM TEMPERATURE IN A DRY ENVIRONMENT

RHEODERM is composed of pharmaceutical-grade hyaluronic acid of non-animal origin obtained through a biofermentation process.

RHEODERM is free from animal derivatives, artificial flavours, colours and preservatives.

RHEODERM is suitable for **halal**, **kosher**, **vegan** and **vegetarian** diets.

CLINICAL STUDIES



Change in wrinkle depth with Rheoderm compared with placebo. 3-dimensional in vivo optical skin measurements after 28 days treatment (P<0.001).



Patient satisfaction after 28 days treatment.

COMPETITIVE ADVANTAGES

RHEODERM® vs topical HA

HA in creams, lotions and serums will be unable to reach the dermis to increase levels of HA in the skin. This is because HA has a large molecular size and cannot penetrate the skin's surface.

Oral intakes of HA will be more effective as the molecule does not need to penetrate the epidermis and will be absorbed and distributed to the dermis via blood vessels.

RHEODERM® vs injectable HA

Injected HA needs to be chemically transformed (cross-linked) in order to stay in the skin. This type of modification affects the natural biological properties of the HA molecule (lower water-binding capacity, lower production of extracellular matrix components) (1) and the injected HA will act mechanically as an implant for a visible action only in the zone where it has been injected.

Orally administered HA will not be transformed and will act naturally to increase the water content and the endogenous HA levels in all the skin regions. Also, orally administered HA will avoid the office visits, the patient inconvenience, the adverse events and the risk associated with injections.

RHEODERM® vs oral collagen

Collagen is only from animal origin whereas the HA in Rheoderm is from non-animal origin. The purity of HA is higher than that of collagen and collagen can produce allergic reactions whereas HA is completely non-allergenic.

Unlike collagen, HA is free from animal proteins and from possible transmissible infectious agents (viruses and prions).

Finally, clinical studies showed that oral collagen was less effective than oral HA to increase skin hydration and elasticity and to reduce wrinkles (2).

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RHEODERM[®]
hyaluronic acid and N-acetylcysteine

designed in France
manufactured in the UK
Orgev Laboratories Ltd.
MK44 1LQ UK