

# The Cure-All for Your Eyes

*by Dr. Claudia Aguirre*

Worried about fine lines? Wrinkles? Uneven tone? Furrow no more. As early as your mid-20s, you may start to notice the very first signs of aging, with the eyes usually leading the wrinkle brigade. Retinol is the smart solution to reverse and prevent multiple signs of aging as the most effective substance for the management of aging and UV-damaged skin.

What makes a wrinkle?

Skin aging is associated with a variety of signs, such as wrinkles, uneven pigmentation, rough skin, and loss of elasticity. In the aging process, there are certain structural and cellular changes that lead to the tell-tale signs of aging. Dermal thinning, primarily due to UV-induced collagen degradation by matrix metalloproteinases (ie. collagenase) combined with epidermal thinning, triggered by a decrease in cell turnover rate, all lead to wrinkles, fine lines and thin, lackluster skin. As inevitable as this seems, it's no reason to throw up your hands and head for the hills. The good news is that many of these changes are brought about by our own lifestyle and environment- and are treatable.

What is Retinol?

Retinol is a form of Vitamin A, also known as a retinoid. Vitamin A exerts its beneficial effects on the skin via its active derivative, retinoic acid. Skin cells have the equipment to convert retinol and other forms of Vitamin A into retinoic acid, the powerhouse alleviating photodamaged skin. The effects of retinoic acid are very well documented in the scientific literature. However, this ingredient is only available by prescription and may produce unwanted side effects such as dehydration, irritation and itching. Retinol has been shown to have the same effects as prescription-strength retinoic acid, without the irritation. Working in the dermis and epidermis, retinol stimulates keratinocyte proliferation and epidermal thickness, visibly improving the appearance of fine lines, wrinkles and pigmentation without any adverse skin reactions. A recent study\* showed all these effects at a low and tolerable concentration of 0.1%. Using retinol at this concentration allows you to get all the benefits of this great vitamin without the irritation- a key balance especially for the delicate eye area.

How should I use Retinol?

We suggest starting alternate nights to build up your skin's tolerance to retinol. A healthy skin is smooth, with a dense collagen and elastin network. It is also rich in retinoid receptors to handle vitamin A. On the other hand, photodamaged skin is depleted of vitamin A, as UV radiation destroys retinoid receptors. Fortunately, we can increase retinoid receptors in the skin by applying Vitamin A topically. Over time, the number of receptors increases, allowing retinol to exert its effects without irritation. Retinol allows you to ease into healthy, clear skin without going under the knife. If your skin can tolerate it, ramp up to nightly use and always use sun protection.

Remember, retinol can be degraded with UV exposure which is why we recommend using this at night. Avoid layering with other products like alpha hydroxy acids and always consult a doctor if pregnant or breastfeeding. Retinol is relatively mild compared to prescription-strength retinoids but it's always wise to be wary of your own skin. Some individuals are very sensitive and may not tolerate products with retinoids. For the majority, retinol provides a single ingredient that smoothes skin, boosts collagen, reduces fine lines and speeds cell turnover to even out discoloration. For lack of better words, this is your skin's best friend.

\*Bellemere G. et al. Antiaging action of Retinol: From molecular to clinical. *Skin Pharmacol Physiol* 2009; 22:200-209.