

Oxidation stress is common in all inflammatory and degenerative condition of the eye

Common ocular surface diseases:

- Keratoconjunctivitis (KCS) or Dry Eye
- allergic conjunctivitis
- keratits associated with free radicals

Eye diseases in brachycephalic breeds:

Unique ocular anatomy of these breeds is associated with common issues such as corneal ulcers, dry eyes and tear staining from increased tear flow

Cataract Development

- Accumulated exposure to oxidative stress result in age-related cataracts
- Osmotic stress initiates ER stress which causes ROS that contribute to diabetic cataract progression



Age-related degenerative eye diseases

Oxidative stress is common in aging pets as the endogenous antioxidants decrease and they begin to experience common eye conditions such as glaucoma and retinal degeneration Nutraceutical Optixcare Eye Health is a topical ocular antioxidant containing 4 ingredients proven to reduce oxidative stress through free radical scavenging and chelating activities

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1. Pyruvic Acid Ethyl Ester

 A prodrug of naturally occurring pyruvic acid, it has strong antioxidant and anti-inflammatory activity.

2. (-)-Epigallocatechin gallate (EGCG)

An antioxidant in green tee with 10-fold greater
antioxidant activity that vitamin E that also protects against the oxidative effects of iron and copper in cataract formation

3. Astaxanthin

lision, Inc.

 A red pigmented marine-based antioxidant with 550-fold higher antioxidant activity than
vitamin E and 6,000-fold higher activity than vitamin C

4. Resveratrol

A polyphenol anti-aging antioxidant found in red wine.

In laboratory studies, Topical Optixcare Eye Health was shown to reduce oxidative stress, leading to better outcomes in cataracts and dry eyes.

Scopalamine Induced Dry Eyes in Rats Topical Optixcare Eye Health maintained tear flow.

Therapeutic Vision, Inc.



Diabetic Cataract in Rats

Optixcare Eye Health delayed the onset and progression of cataracts.



UV Light induced Cataracts in Rats

Optixcare Eye Health maintained levels of endogenous antioxidant glutathione (GSH) and reduced lens membrane oxidation measured as 4-Hydroxynonenal (4-HNE). Both are associated with cataract onset.



In laboratory studies topical Optixcare Eye Health reduced retinal degeneration by reducing retinal membrane oxidation and photoreceptor loss in rats

Retinal Degeneration in Rats

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Exposing long-term dark-adapted rats to light causes retinal degeneration with retinal tissue oxidation, release of iron from photoreceptors and subsequent loss of the photoreceptor layer (arrows).

- Lens membrane oxidation measured as 4-Hydroxynonenal (4-HNE) was reduced with MFRM and partially by the topical nutraceutical.
- Treating the rats with oral MFRM JHX-4 protects the photoreceptor layer in both the inferior hemisphere and superior hemisphere while the TVI nutraceutical provided partial protection against oxidative stress in the retina.
- Since topical application generally does not reach the retina, this was unexpected.



Light-exposed Dark-adapted Rats

- Control. LD



Unexposed Dark-adapted Rats





The all natural antioxidant nutraceutical removes tear stains without the use of harmful chemicals, antibiotics, or skin irritants





BELLA P Omaha, NE Initial



BELLA R. San Diego, CA

Initial



2 Months treatment b.i.d.



2 Months treatment b.i.d.



2 Months treatment b.i.d.

