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Blink™ NutriTears®: A daily supplement to help with dry eyes*

The Blink™ NutriTears® formulation is a proprietary blend of 20 mg lutein, 4 mg zeaxanthin isomers, 200 mg curcuminoids, and 600 IU vitamin D3, formulated as a soft-gel capsule, to provide nutritional support to address dry eyes when administered once daily with food.¹ These components have demonstrated protective effects against ocular inflammation and inflammatory responses.²⁻⁹

Micronization of the ingredients in Blink™ NutriTears® that provide the curcuminoids, and lutein and zeaxanthin isomers (turmeric and marigold flower extracts, respectively) improves the bioavailability of these active components. Carrier and functional oils in the Blink™ NutriTears® formulation improve absorption and bioavailability.^{10,11}

Blink™ NutriTears® improved tear production and tear film stability, reduced markers of oxidative stress and inflammation, and increased production of tear proteins in an *in vivo* model of dry eye disease and in a randomized clinical study in adult patients from India.¹¹ These findings indicated that supplementation with Blink™ NutriTears® could help manage dry eye symptoms and support the health of the ocular surface

through a multi-modal mechanism of action.^{10,11} A second study, conducted in the US, has now provided additional data supporting these earlier findings.¹²



*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.

⁹Based on a clinical study

“Blink™ NutriTears® works differently using familiar ingredients in a very innovative way”

Dr. Selina McGee, OD, FAAO

Integrative Actives ¹	Lutein & zeaxanthin isomers 20 mg & 4 mg	Lutein & zeaxanthin have demonstrated antioxidant and anti-inflammatory effects, protecting against photo-oxidative damage ^{4,9}	Delivered in a single soft-gel, consumed daily after food ¹
	Curcuminoids 200 mg	<i>In vitro</i> , curcumin can reduce pro-inflammatory cytokines in corneal epithelial cells, ² and has neuroprotective effects on retinal cells <i>in vitro</i> and <i>in vivo</i> ⁵	
	Vitamin D3 600 IU	Vitamin D3 supplementation has been shown to improve the efficacy of artificial tears and reduce symptom severity in both vitamin D3-deficient and non-deficient patients ⁶⁻⁸	

“With its unique formulation, I anticipate Blink™ NutriTears® will become an important addition to dry eye management strategies”

Dr. Laura M. Periman, MD

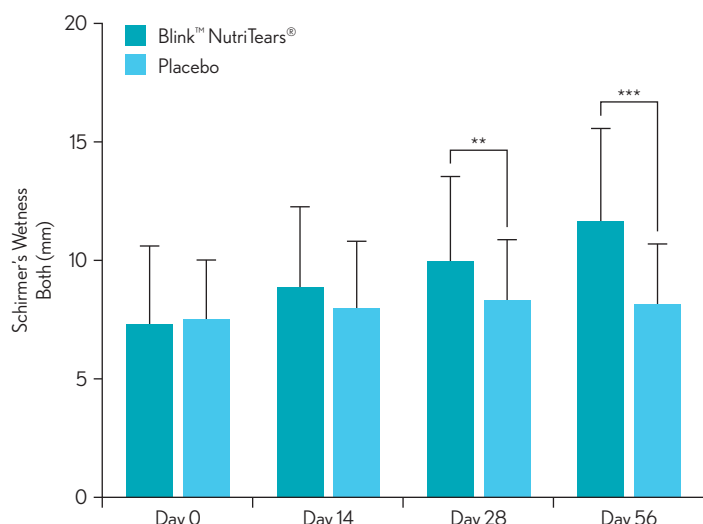
“In around two months we saw improvement in tear quality and tear volume. Even more importantly... we see those OSDI scores improve”

Dr. Neda Gioia, OD, CNS, FOWNS, CFMP

Blink™ NutriTears® US clinical study¹²

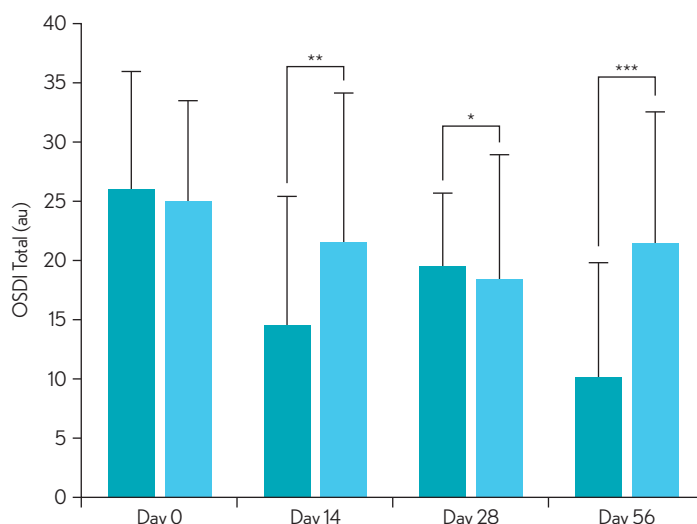
- The prospective, randomized, double-blind, parallel, placebo-controlled study evaluated the efficacy and safety of Blink™ NutriTears® as a daily supplement over 8 weeks in adult participants enrolled at four study centers in the United States (NCT05481450).
- 116 participants completed the study, and demographic characteristics were comparable between the Blink™ NutriTears® and placebo groups, including use of corrective eye wear (contact lenses or glasses).
- Compliance rate was high and similar for the study groups (mean [SD], 96.89 [3.41]% and 96.13 [3.23]%, respectively).
- Blink™ NutriTears® supplementation significantly improved tear volume (Figure 1) and Ocular Surface Disease Index (OSDI) total score (Figure 2), versus placebo, from Baseline to Day 56 ($p < 0.001$ for both).
- Blink™ NutriTears® supplementation significantly improved tear breakup time (TBUT), tear film osmolarity, corneal and conjunctival staining, Standard Patient Evaluation of Eye Dryness (SPEED) score ($p < 0.001$ for each outcome), and presence of Matrix metalloproteinase-9 (MMP-9) ($p < 0.001$ for each eye).
- Total OSDI and SPEED scores significantly improved from Baseline by Day 14, versus placebo ($p < 0.01$ and $p < 0.05$, respectively).

Figure 1: Schirmer's test results for the mean of both eyes



** $p < 0.01$; *** $p < 0.001$. A value of >10 – 15 mm is generally considered normal for Schirmer's test performed without anesthesia. Data are presented as mean \pm standard deviation.

Figure 2: OSDI results for the total score



OSDI results for the total score. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. The normal range for OSDI score is generally accepted as 0–12 points. Data are presented as mean \pm standard deviation. au, arbitrary units; OSDI, Ocular Surface Disease Index.

“The clinical results are compelling - within a month, patients achieved statistically significant dry eye symptom relief”

Dr. Laura M. Periman, MD

“The OSDI scores at day 14 start to show statistically significant improvement, which is really amazing knowing how nutraceuticals work, and that's going back to the formulation most likely and the bioavailability of that formulation”

Dr. Neda Gioia, OD, CNS, FOWNS, CFMP

“This could represent a significant opportunity for consumers looking for options when it comes to dry eye symptom relief”

Dr. Neda Gioia, OD, CNS, FOWNS, CFMP

Blink™ NutriTears® was well tolerated¹²

- Blink NutriTears supplementation was well-tolerated, with few adverse events, and without clinically meaningful changes in blood safety measures or resting vital signs.
- Only two AEs were reported (Table 1).
- One patient discontinued due to an AE possibly caused by a pre-existing sensitivity to vitamin D3 supplementation.
- No serious AEs were reported.

*Increased nasal bleeding in one participant in the Blink™ NutriTears® group. This participant had a history of nasal bleeding triggered by vitamin D3 supplementation and reported this AE three times (Days 5, 6, and 10); the AEs were considered mild and possibly related to the study intervention, and the participant discontinued the study after Day 10. †Increased blurred vision reported once in one patient in the placebo group. This event was considered mild and not related to the study intervention; the participant completed the study. Data presented as n (%), number of participants and percentage of the sample size. AE, adverse event; SAE, serious adverse event.

Table 1: Overall summary of adverse events

AEs	Blink™ NutriTears® (N=57) n (%)	Placebo (N=59) n (%)
Participants reporting at least one AE	1* (1.75)	1† (1.69)
Total number of AEs reported	3 (5.26)	1 (1.69)
Total number of SAEs reported	0	0
Participants reporting SAEs	0	0
Participants reporting drug-related AEs	0	0
Participants reporting AEs leading to early discontinuation	1 (1.75)	0
Number of deaths	0	0

Once-daily supplementation with Blink™ NutriTears® improved the production, stability, and quality of tears, and significantly reduced the impact of symptoms, from as early as 2 weeks.¹²

This study highlights the benefits of anti-inflammatory and antioxidant nutritional support with Blink™ NutriTears® for patients in improving dry eye symptoms. Blink™ NutriTears® offers a useful adjunct in the management of dry eyes.¹²



“Consumption of this new once-daily nutritional supplement may help restore tear film homeostasis”

Dr. Neda Gioia, OD, CNS, FOWNS, CFMP

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¹²Based on a clinical study

Addressing unmet needs in dry eye with nutraceuticals

Dry eye is a growing global concern, with a global prevalence of 5 to 50%, and affects 150 million people in the United States alone, with increasing prevalence in younger people. Those affected may experience symptoms of chronic discomfort and visual disturbance, which can impact their daily activities, work and school lives, and wellbeing.¹³⁻¹⁶

If left unchecked, inflammation may lead to ocular surface changes causing increased symptomology, irritation, and impact on tear quality. While artificial tears are the traditional mainstay approach to provide relief, addressing inflammation by targeting the underlying physiological processes could help relieve symptoms.¹³⁻¹⁶



Nutraceuticals in eye health

There is increasing interest in the role of oral nutritional supplementation in the management of several ophthalmic conditions, with growing evidence supporting this approach for dry eyes.^{2,3} The anti-inflammatory and antioxidant properties of certain bioactive compounds can moderate elements of dry eyes and have shown beneficial effects on the ocular surface, with the potential for administration as nutraceuticals.^{2,3}

References

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“Having this potential in a supplement form to help address the signs and symptoms of dry eyes will give us a lot of confidence to add to our toolbox of management”

Dr. Neda Gioia, OD, CNS, FOWNS, CFMP