## eyegum







# Eyegum is the first chewing gum in the world which provides eye and vision care.

An innovative product

Contains vitamins
A, C and E

Contains dietary supplements that improve eye tissue nutrition





## What are the ingredients of eyegum?

**INGREDIENTS** 

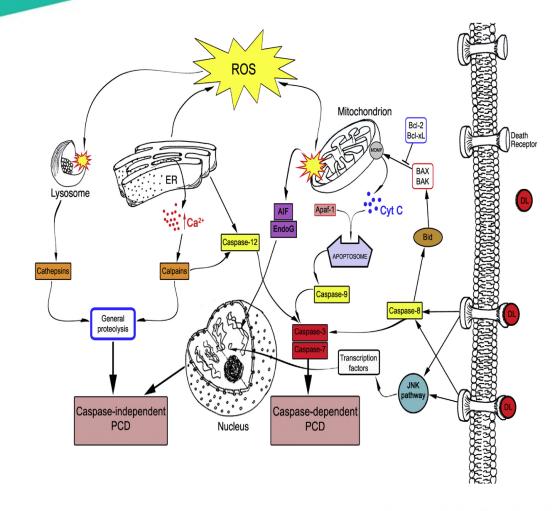
- Lutein	10 mg
- Zeaxanthin	1 mg
- Vitamin A	800 mg
- Vitamin C	80 mg
- Vitamin E	6 mg
- Zinc	5 mg
- Copper	0.035 mg





# Oxidative stress and degeneration of the retina

- > The death of ganglion cells occurs through the intrinsic apoptotic pathways.
- In addition, glial cells are activated and release of cytokines after an initial phase of ganglion cell death.









REVIEW

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#### Antioxidant Supplementation in the Treatment of Aging-Associated Diseases

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Oxidative stress is generally considered as the consequence of an imbalance between pro- and antioxidants species, which often results into indiscriminate and global damage at the organismal level. Elderly people are more susceptible to oxidative stress and this depends, almost in part, from a decreased performance of their endogenous antioxidant system. As many studies reported an inverse correlation between systemic levels of antioxidants and several diseases, primarily cardiovascular diseases, but also diabetes and neurological disorders, antioxidant supplementation has been foreseen as an effective preventive and therapeutic intervention for aging-associated pathologies. However, the expectations of this therapeutic approach have often been partially disappointed by clinical trials. The interplay of both endogenous and exogenous antioxidants with the systemic redox system is very complex and represents an issue that is still under debate. In this review a selection of recent clinical studies concerning antioxidants supplementation and the evaluation of their influence in aging-related diseases is analyzed. The controversial outcomes of antioxidants supplementation therapies, which might partially depend from an underestimation of the patient specific metabolic demand and genetic background, are presented.

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<sup>†</sup> These authors have contributed equally to this work. Eyegum is a vitamin supplement with proven antioxidant effect.





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#### Original Article

#### Effects of Omega-3 Fatty Acids Supplement on Antioxidant Enzymes Activity in Type 2 Diabetic Patients

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#### Abstract

Background: Diabetes is a major cause of death. Oxidative stress mainly caused by hyperglycemia is the primary reason of related complications. Omega-3 fatty acids are prescribed in diabetes but the effect on antioxidant defense is controversial. This study investigated effects of omega-3 supplementation on antioxidant enzymes activity in type 2 diabetic patients.

Methods: A randomized, placebo controlled, double blind clinical trial was performed on 90 type2 diabetic patients. The treatment group took, daily, three capsules of omega-3 for two mo, which totally provided 2714mg omega-3 (EPA=1548 mg, DHA=828 mg and 338 mg of other omega=3 fatty acids). Placebo contained 2100 mg sunflower oil (12% SFA, 65% linoleic acid, 23% MUFA), which is the main oil used in the study population. Food intakes, anthropometric and demographic characteristics, and therapeutic regimen data were recorded before and after the intervention. Fasting blood samples were taken before and after the intervention to measure super oxide dismutase, glutathione peroxidase, glutathione reductase, catalase and total antioxidant capacity in erythrocytes.

Results: A total of 81 subjects completed the study. Two study groups were similar as regards duration of diabetes, age and the enzymes at baseline. Energy and macro- and micronutrients intakes, weight and hypoglycemic agent consumption were similar in the two groups at baseline and did not change. Supplementation had no effect on antioxidant enzyme status. Glycated hemoglobin showed a significant reduction by supplementation.

Conclusion: Daily supplementation of 2714 mg mega-3 for two mo results in a significant reduction in HbA1c level in type2 diabetic patients with no effects on antioxidant enzymes activity.

Keywords: Type 2 diabetes, Omega-3 supplement, Antioxidant enzymes

# EFFECTS OF omega-3 FATTY ACIDS SUPPLEMENTS ON ANTIOXIDANT ENZYMES ACTIVITY.





#### Original Research Article

Effect of ascorbic acid and alpha-tocopherol supplementations on serum leptin, tumor necrosis factor alpha, and serum amyloid A levels in individuals with type 2 diabetes mellitus

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Keywords:

Diabetes mellitus type 2 Ascorbic acid Alpha-tocopherol Leptin Serum amyloid A

#### Abstract

Objective: Diabetes mellitus Type 2 is one of the most widespread chronic metabolic diseases. In most cases, this type of diabetes is associated with alterations in levels of some inflammatory cytokines and hormones. Considering antiinflammatory properties of plant extracts rich in ascorbic acid (vitamin C) and alpha-tocopherol (vitamin E), anti-diabetic properties of these two well-known antioxidant vitamins were investigated through measurement of serum levels of highsensitivity C-reactive protein (hs-CRP), insulin, leptin, tumor necrosis factor alpha (TNF-α), and serum amyloid A (SAA) in patients with diabetes mellitus type 2.

Materials and Methods: Male patients (n=80) were randomly divided into two groups each consisted of 40 subjects. Test groups were supplemented with ascorbic acid (1000 mg/day) or alphatocopherol (300 mg/day) orally during four weeks. Before and after treatment, serum biochemical factors of subjects were measured and compared.

Results: Our results showed that both ascorbic acid and alphatocopherol could induce significant anti-inflammatory effects by decreasing the level of inflammatory factors such as TNF-a, SAA, and hs-CRP in diabetes mellitus type 2 patients. Effects of alphatocopherol and ascorbic acid in decreasing serum leptin level were similar. Ascorbic acid in contrast to alpha-tocopherol diminished fasting insulin and HOMA index but had no effect on LDL serum level.

Conclusion: Concerning the obtained results, it is concluded that consumption of supplementary vitamins C and E could decrease induced inflammatory response in patients with diabetes mellitus type 2. It is also possible that vitamin C and vitamin E supplementation can attenuate incidence of some proposed pathological effects of diabetes mellitus. Effects of ascorbic acid & alpha-supplements on serum leptin, tumor necrosis factor alpha, and serum amploid a levels.



## The main benefits of using eyegum

- Improvement of nutritional retinal processes, especially macular.

 Improvement of the ocular surface, in particular of the processes of tearing.

- Maintenance of better integrity of the eye surface, especially in cases where it may be damaged by the prolonged usage of contact lenses or exposure to negative environmental effects.

- Improves oral hygiene as well as and the digestive processes.





### Vitamin A

- Essential for vision, preventing certain visual alterations such as cataracts, glaucoma, loss of vision, twilight blindness.
- Helps to fight against bacterial infections like conjunctivitis.

## Vitamin C

• Improves vision and prevents such vision problems as cataract or glaucoma.

## Vitamin E

- Another antioxidant that can prevent or delay the development of cataract.
- Slows down the process of aging, by eliminating free radicals that cause degeneration of tissues such as skin and blood vessels.





## Conclusion

- A chewing gum with a pleasant flavor as well as vitamins and dietary supplements for eye health and good vision (it is already on sale).
- Just chewing the gum once a day for five or ten minutes is sufficient to have its composition absorbed sublingually.
- It is recommended for dry-eye disease, macular degeneration and stimulation of tearing.
- Has an antioxidant effect on the ocular surface.





## Conclusion

- In Spain EYEGUM can be bought in pharmacies, opticians and at the NUTRAFAN online store (www.nutrafan.com).
- It is the first series of dietary products aimed at eye care designed by Oftalcare Nutravision.
- The objective of Oftalcare Nutravisión is to improve your health, as a result of periodic and calculated ingestion of micronutrients that improve the antioxidation process, preserving and improving health and avoiding premature aging.





# Thank you





