



General Balance Lutein Zeaxanthin



General
Balance

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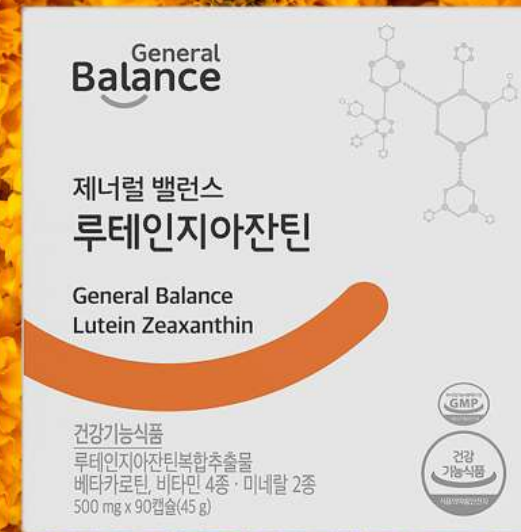


PRODUCT INTRODUCTION

- ❖ Product Name : **General Balance Lutein Zeaxanthin**
- ❖ Type of Food : **Health functional food**
- ❖ Contents : **500 mg x 90 capsules (45 g)**
- ❖ Ingredients and Quantity: **Lutein zeaxanthin complex extract (No. 2018-4), Beta-carotene, Vitamin A·B6·C·E, Zinc, Selenium, etc.**
- ❖ Recommended Dosage and Usage: **Take 1 capsule once daily with sufficient water.**

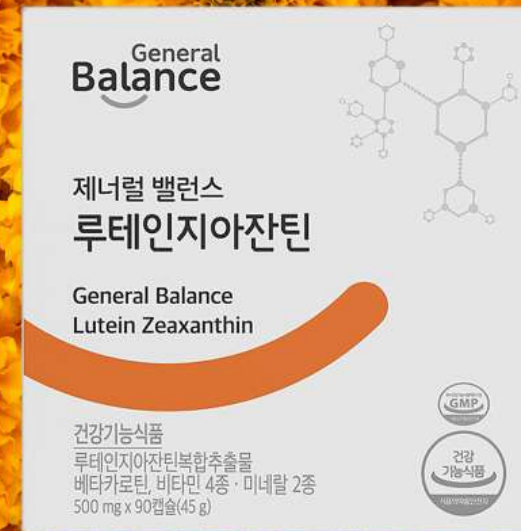
PRECAUTION FOR CONSUMPTIONS:

- ✓ Use caution when consuming for infants, children, pregnant, or nursing women.
- ✓ Excessive intake may temporarily cause the skin to turn yellow.
- ✓ If you have any medical conditions or are taking medication, consult with a healthcare professional before consumption.
- ✓ Individuals with specific constitutions such as allergies may experience hypersensitivity reactions, so please check the ingredients before consumption.
- ✓ In case of any adverse reactions, discontinue consumption and consult with a healthcare professional.
- ✓ Do not consume products that have exceeded their expiration date.
- ✓ Do not ingest the desiccant found inside the container.



PRODUCT FEATURES

- ✓ Consume both lutein and zeaxanthin, crucial components for the macula's central structure, simultaneously.
- ✓ Human application test results of lutein zeaxanthin complex extract (No. 2018-4).
- ✓ 8-layers complex functionality.
- ✓ Contains carefully selected ingredients for eye health.
- ✓ Plant-based capsules excluding gelatin and synthetic flavors.



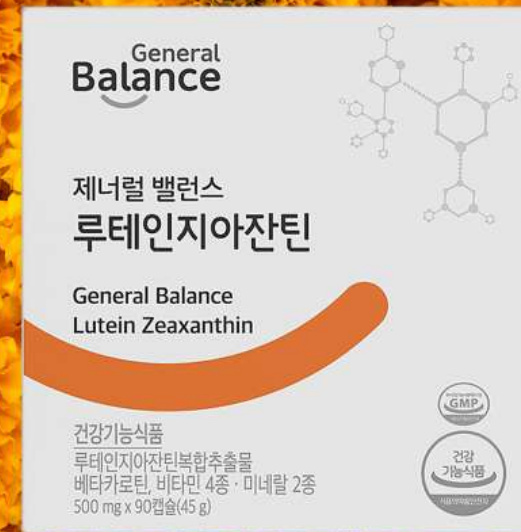
KEY INGREDIENTS- LUTEIN ZEAXANTHIN COMPLEX

1. What is Lutein?

Lutein, derived from marigold flowers, **plays a vital role in the macula, a densely populated area in the retina essential for vision.** Intake of lutein enhances macular pigment density, leading to improved visual function and the prevention of age-related macular degeneration.

2. What is Zeaxanthin?

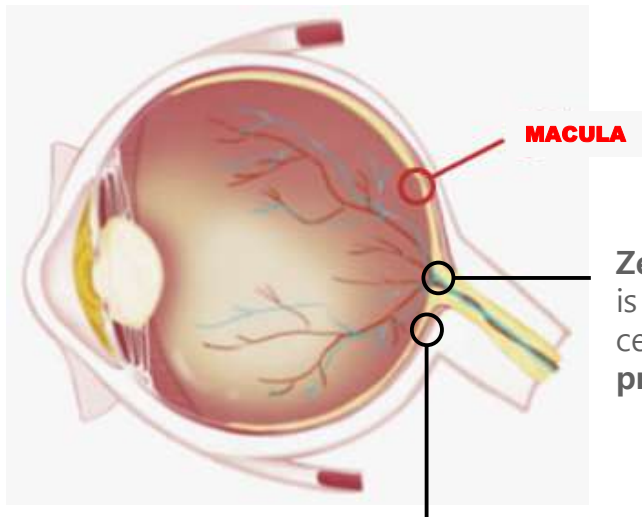
Similar to Lutein, Zeaxanthin is a substance that constitutes the macula and **is responsible for central vision.** Since it is not produced within the body, supplementation from external sources is essential.



KEY INGREDIENTS- LUTEIN ZEAXANTHIN COMPLEX

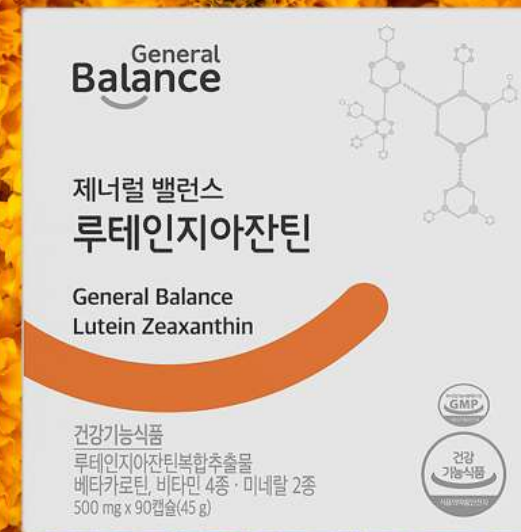
Macula

The central part of the retina responsible for 90% of vision, densely populated with photoreceptor cells.



Zeaxanthin is concentrated in the center of the macula, **protecting central vision.**

Lutein is densely packed in the periphery, **safeguarding peripheral vision.**



KEY INGREDIENTS- LUTEIN ZEAXANTHIN COMPLEX EXTRACT

Lutein Zeaxanthin Complex Extract (No. 2018-4) is a natural ingredient standardized to a ratio of 10:1, consisting solely of naturally extracted lutein and natural trans-zeaxanthin (3R,3'R-zeaxanthin) from marigold flowers.

The manufacturer of the ingredient, Katra Phytochem Pty Ltd in India, is a pioneering company in the field of marigold carotenoids. They have obtained patents in Australia, Japan, the United States, and Europe for products containing a mixture of lutein and natural zeaxanthin.



Australian Patent: AU
2010200636



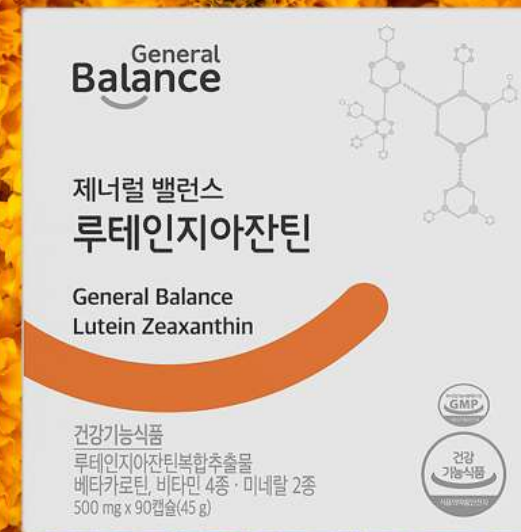
Japanese Patent: JP
5,795,572



US Patent: US 8,481,769

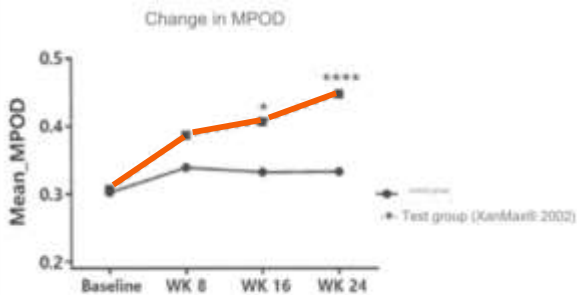


European Patent: EU
1877371

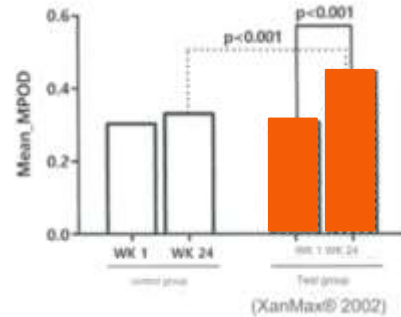


KEY INGREDIENTS- HUMAN APPLICATION TEST RESULTS

In a study involving individuals aged 45 to 65, it was found that the intake of Lutein Zeaxanthin Complex Extract (No. 2018-4) for 24 weeks (180 days) resulted in increased macular pigment density compared to the control group.



*P<0.05 and ****P<0.0001 in two-way repeated measures ANOVA

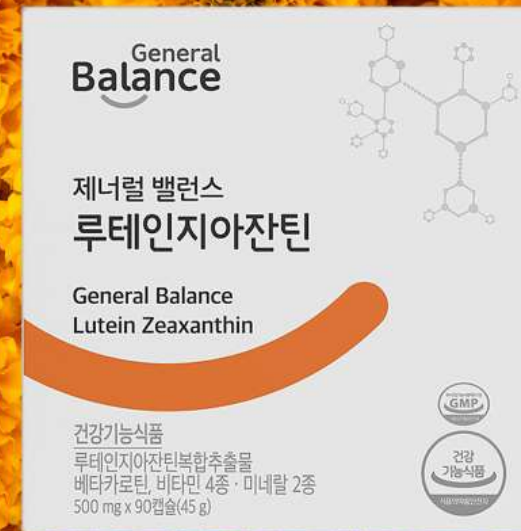


MPOD (Macular Pigment Optical Density): Density of macular pigment in the retina

- Institution** : Narayana Nethralaya Eye Hospital
- Participants** : 60 individuals aged 45 to 65, both male and female, with MPOD (Macular Pigment Optical Density) ranging from 0.2 to 0.4
- Conditions** : Consumption for 180 days, with measurements taken at intervals of 60 days
- Results** : The group taking Lutein Zeaxanthin Complex Extract (No. 2018-4) showed a 44.9% increase in macular pigment density after 180 days compared to before intake, demonstrating a statistically significant difference ($p<0.001$) compared to the control group.
- Note** : The test results may not apply uniformly to all individuals.

[Source]

A randomized, double blind, placebo controlled, parallel study to evaluate the comparative 2002 oral soft gel capsule with that of a placebo soft gel capsule efficacy of XanMax improving MPOD levels in elderly volunteers.



KEY INGREDIENTS- 8-LAYERS COMPLEX FUNCTIONALITY

The Lutein Zeaxanthin Complex Extract (No. 2018-4), recognized as an individual ingredient, adheres to the maximum daily allowance of 20 mg set by the Ministry of Food and Drug Safety. Additionally, it contains beta-carotene and vitamin A to support eye health, vitamin B6 to boost energy metabolism, antioxidants like vitamin E, vitamin C, selenium, and zinc, necessary for maintaining normal immune function.

[Lutein Zeaxanthin Complex Extract]

Helps maintain macular pigment density that may decrease due to aging, thereby contributing to eye health.

[Beta-Carotene]

Necessary for visual adaptation in low light conditions, formation and maintenance of skin and mucous membranes, and growth and development of epithelial cells.

[Vitamin A]

Necessary for visual adaptation in low light conditions, formation and maintenance of skin and mucous membranes, and growth and development of epithelial cells.

[Vitamin B6]

Required for protein and amino acid utilization and maintaining normal levels of homocysteine in the blood.

[Vitamin C]

Necessary for the formation and maintenance of connective tissue, absorption of iron, and protection of cells from harmful oxidants.

[Vitamin E]

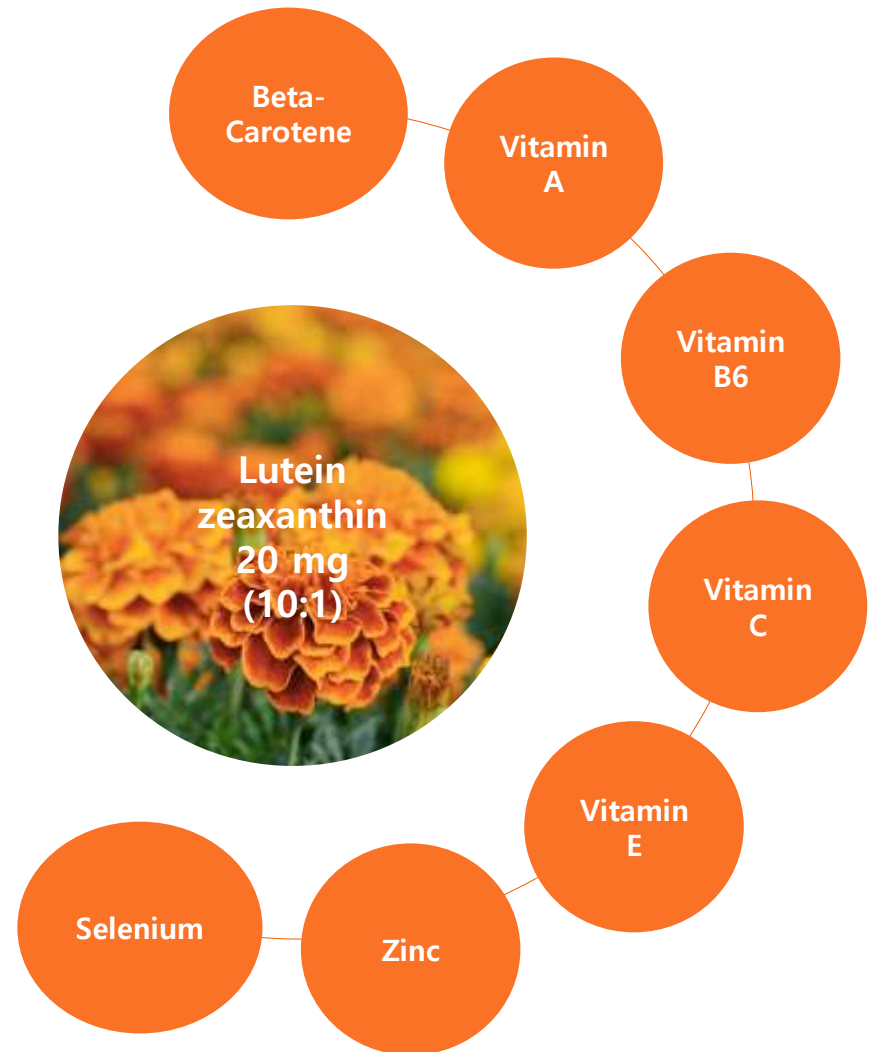
Necessary for protecting cells from harmful oxidants.

[Zinc]

Necessary for normal immune function and normal cell division.

[Selenium]

Necessary for protecting cells from harmful oxidants.



KEY INGREDIENTS- CONTAINS CAREFULLY SELECTED INGREDIENTS

General Balance Lutein Zeaxanthin contains additional ingredients such as tomato extract powder, marigold extract powder, blueberry extract powder, and bilberry extract powder, which may contribute to eye health.



Tomato Extract Powder

Tomatoes, a prominent red vegetable, contain high levels of the **antioxidant compound lycopene**. Lycopene is an effective component for eye health, including **prevention of dry eye syndrome and night blindness**.



Marigold Extract Powder

Marigold, known as "the seed that clears the eyes," is a prominent food item that supports eye health. The carotenoid components in marigold, which are **precursors to vitamin A**, **help alleviate eye congestion, reduce fatigue, and prevent optic nerve disorders**.

*Limited to raw material characteristics



KEY INGREDIENTS- CONTAINS CAREFULLY SELECTED INGREDIENTS

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Blueberry Extract Powder

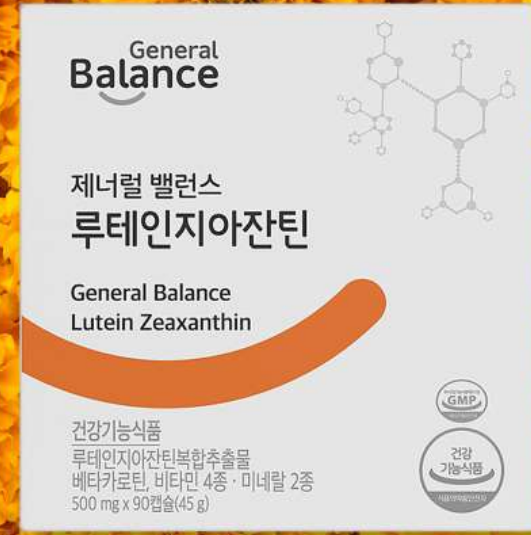
Blueberries, listed as one of the world's top 10 "superfoods" by Time magazine, **are rich in anthocyanins and polyphenols.** With approximately 30 times more anthocyanins than grapes, **blueberries not only possess antioxidant effects but also have protective effects on vision.**



Bilberry Extract Powder

Bilberries, resembling blueberries in appearance, are fruits **rich in antioxidants such as anthocyanins and polyphenols.** Characterized by their purple flesh, bilberries contain abundant amounts of these compounds throughout, similar to blueberries.

*Limited to raw material characteristics

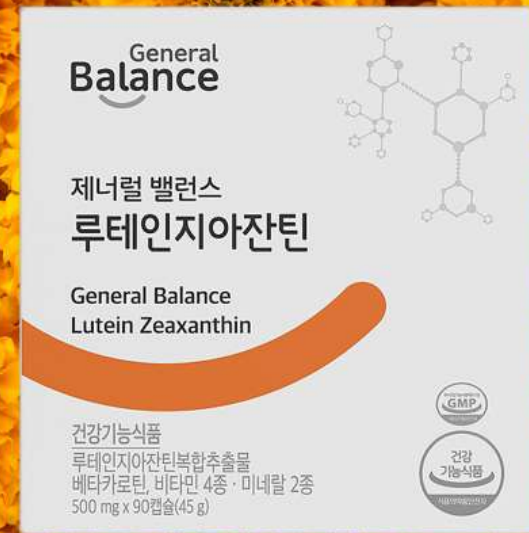


[Source] Top 8 Fruits and Vegetables for Eye Health.. "Let's Take Care of Our Health in Advance" | BreakNews

KEY INGREDIENTS- UTILIZATION OF PLANT-BASED CAPSULES



General Balance Lutein Zeaxanthin uses plant-based softgel capsules made from carrageenan and starch extracted from algae, rather than animal-derived gelatin capsules. This allows even individuals with poor digestive health to safely consume the product.



RECOMMENDED TARGET AUDIENCES



Those who wish to consume both lutein and zeaxanthin together.

Individuals concerned about their eye health as they age.

Professionals who spend long hours working on computers.

Adolescents and students experiencing eye fatigue from studying.

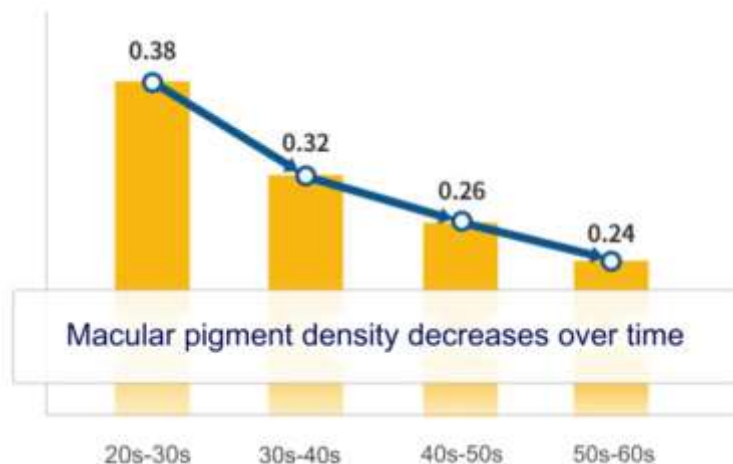
Individuals who are exposed to UV radiation due to outdoor activities.

Drivers who frequently drive at night or for extended periods.



HEALTH INFORMATION

As individuals age, one particularly crucial area to pay attention to is the macula of the eye. The **macula is responsible for receiving light most sharply and accurately** and is where the details of objects are perceived, playing a vital role in maintaining eyesight. The macula is **composed of pigments called lutein and zeaxanthin**, and as individuals age, a decrease in their density can lead to a condition called "macular degeneration," which significantly impairs vision. **Research shows that individuals in their 50s to 60s have about half the macular pigment density of those in their 20s.**



[SOURCE] Risk factors for age-related maculopathy are associated with a relative lack of macular pigment (Experimental Eye Research 2007 Jan;84(1):61-74)



HEALTH INFORMATION

Consuming lutein and zeaxanthin together maximizes their effectiveness.

According to the Journal of the American Medical Association, individuals who consume lutein and zeaxanthin daily have a 43% lower risk of macular degeneration compared to those who do not.

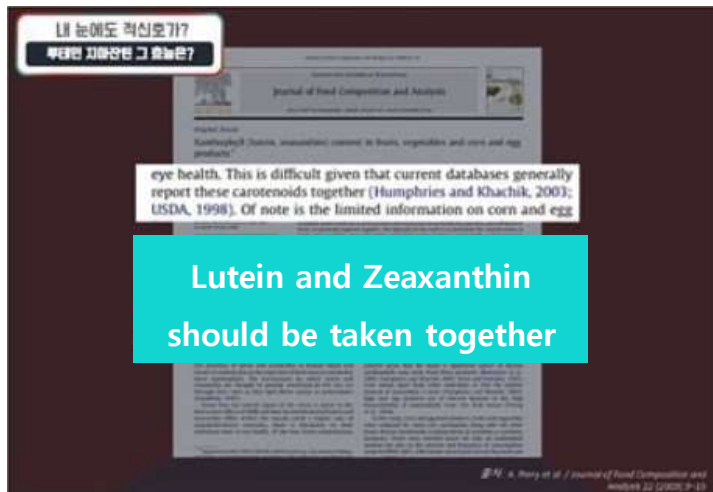
Additionally, the American Journal of Clinical Nutrition has stated that consistent intake of lutein and zeaxanthin can lower the risk of cataracts by 22%.



HEALTH INFORMATION

Consuming lutein and zeaxanthin together maximizes their effectiveness.

- ✓ When taking lutein alone, visual improvement is 8.9%, but when taken with zeaxanthin, visual improvement is 12.1%.
- ✓ When lutein and zeaxanthin are taken together, the incidence of cataracts decreases by 22%.
- ✓ Individuals with high blood levels of zeaxanthin have a 93% reduced risk of age-related macular degeneration.



[SOURCE] Xanthophyll (lutein, zeaxanthin) content in fruits, vegetables and corn and egg products (Journal of Food Composition and Analysis 2009 Feb;22(1):9-15)

