

Lutein

About Lutein

Lutein is one of over 600 known naturally occurring carotenoids. Marigold flowers (*Tagetes erecta L.*) are rich sources of lutein¹. The powerful antioxidant lutein has been established as a vital nutrient for eye health. Numerous scientific and clinical studies in humans have shown that lutein is deposited in the eyes, more specifically in the macula and the lens. This has led a number of researchers to suggest an important role for lutein in reducing the risk of age-related macular degeneration²⁻³ and cataracts⁴⁻⁵.



Role of lutein in eye health.

Lutein is an important compound in the human body, but the body does not manufacture lutein. Eating foods containing lutein or consuming dietary supplements that contain lutein is the only way to get lutein. Lutein was found to be present in a concentrated area of the macula, a small area of the retina responsible for central vision. The hypothesis for the natural concentration is that lutein helps protect from oxidative stress and high-energy light. Various research studies have shown that a direct relationship exists between lutein intake and pigmentation in the eye^{3 & 6}. Several studies also show that an increase in macula pigmentation decreases the risk for eye diseases such as Age-related Macular Degeneration (AMD)⁷⁻⁸. Blue light, in both indoor lighting and sunlight, is believed to induce oxidative stress and possible free radical damage in human eyes. Lutein filters blue light and scavenges reactive intermediates generated in photo-oxidation⁹.

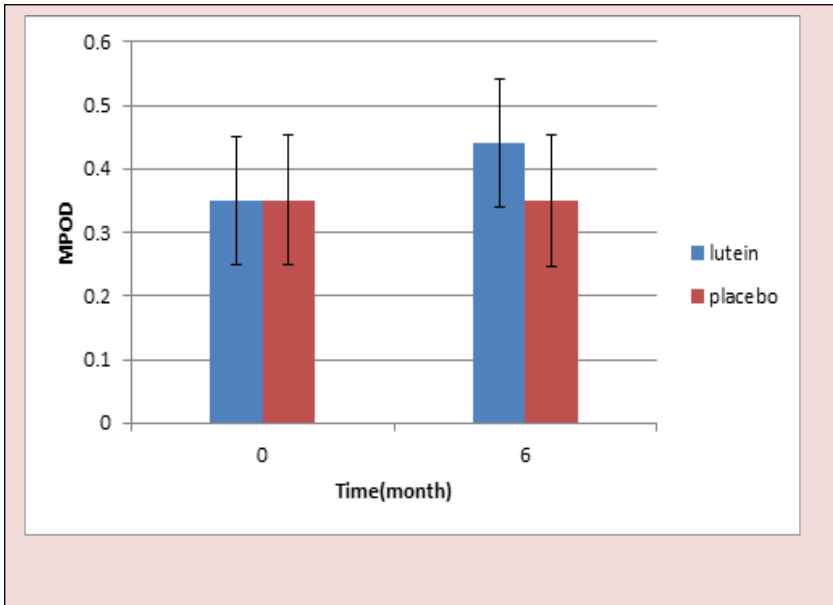
Role in Skin health

- Reduces lipid peroxidation
- Increases skin elasticity
- Increases superficial skin lipids
- Increases skin hydration

Clinical trials

- Lutein, Zeaxanthin, and meso-Zeaxanthin in the Clinical Management of Eye Disease. Randomized controlled clinical trials have revealed that supplementation of L and Z increases macular pigment density, improves visual function, and decreases the risk of progression of intermediate AMD to late AMD, especially neovascular AMD¹⁰.
- In a double-blind study, ingestion of xanthophylls (10 mg purified lutein + 0.3 mg zeaxanthin) with or without additional antioxidants by patients with early AMD resulted in 50% improvement in macular pigment optical density (MPOD) and significant improvement in visual function parameters including glare recovery, contrast sensitivity and visual acuity¹¹.

- Lutein supplementation for 6 months in AMD patients resulted in significant increase in MPOD by 27.9% and improvement in visual function parameters including mean differential light threshold (MDLT) and visual acuity (VA)¹².



- In an open trial, long term lutein supplementation showed significant increase in macular pigment density¹³.



LUTIXAN Lutxan is the brand name of various grades of lutein offered Prakruti Products.

References:

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Dose

10 to 30 mg / day / adult¹⁶.

Safety.

- The observed safe level risk assessment method indicates that the evidence of safety is strong at intakes of lutein up to 20mg/d., although much higher levels have been tested without adverse effects¹⁴.
- Increasing doses of lutein supplements significantly increased the serum level of lutein, and doses up to 10 mg were safely administered. No toxicity was observed¹⁵.

Available grades.

Lutein Ester

- Lutein 5%, 10%, 20%, 40% - Oil and Powder
- Lutein 80% Powder.

Lutein Free (LutiXan)

- Lutein 5%, 10%, 20%, 40% - Oil and Powder
- Lutein 75% Crystals

Lutein Other grades

- Lutein Water Dispersible 5%, 20% Powder
- Lutein Beadlets 5%, 10%
- Lutein Ester Co2 extracted 20%

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