



## Lutein

### Common Indications:

- Antioxidant
- Ocular-related conditions, including cataracts, macular degeneration, retinopathies

### General Comments:

Lutein is a member of the xanthophyll family of carotenoids, which are naturally occurring fat-soluble pigments found in plants. Lutein specifically concentrates in the macula of the eye. Lutein protects the macula by filtering out potentially damaging forms of light, including UV radiation.

### Benefits & Mechanism of Action:

- Antioxidant: Protects the eyes by neutralizing oxygen free radicals and singlet oxygen, which are generated in the retina as a consequence of the simultaneous presence of light and oxygen.
- Strengthen Blood Vessels: Bioflavonoids strengthen blood vessels throughout the body. Since lutein concentrates in the macula, it strengthens and protects the blood vessels that supply the macular region of the eyes.
- Ocular health: Filters out blue light, which can cause photodamage and contribute to the progression of macular degeneration if it is excessive.<sup>1</sup> Lutein and zeaxanthin cross the blood-retina barrier to form macular pigment (MP) in the eye.<sup>2</sup>
- Dietary concentrations between 6 - 20 mg per day of lutein have been associated with a reduced risk of ocular disorders such as cataracts and age-related macular degeneration.<sup>3,4</sup>
- A study using 1802 women aged 50-79 (the Age-Related Eye Disease Study) reported higher dietary lutein and zeaxanthin intakes were associated with a 23% lower prevalence of nuclear cataract.<sup>5</sup>
- Cardiovascular: Epidemiological studies suggest an association between carotenoid intake and decreased risk of cardiovascular disease.<sup>6</sup>
- Low levels of lutein are reported to increase the incidence of atrial fibrillation.<sup>7</sup>

**Dose:**

- 6 - 20 mg daily.
- Lutein is absorbed with fats in the gastrointestinal system.

**Food Sources:**

Lutein is found in dark green leafy vegetables (e.g. spinach, kale), sweetcorn, and egg yolks.

**Cautions & Side Effects:**

No side effects or toxicity have been reported with lutein.

**References:**

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