

# maintains healthy vision

This formula combines powerful Carotenoids, Antioxidants vitamins & minerals help's to protect from the potentially damaging effects of free radicals also filters high energy radiation to support macular health. supports the treatment of ARMD (Age Related Macular Degeneration) cataract & dry eye syndrome. helps in maintain healthy vision.

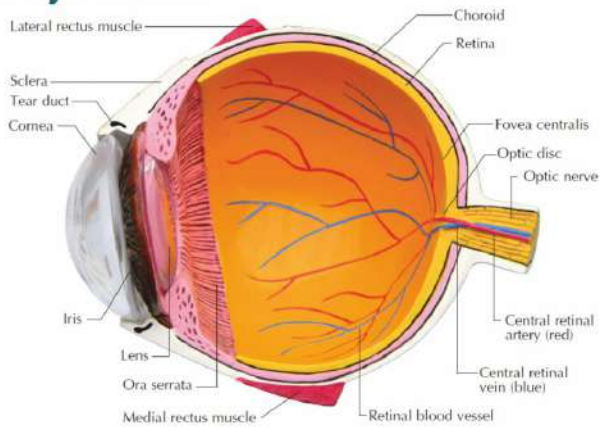


## Composition

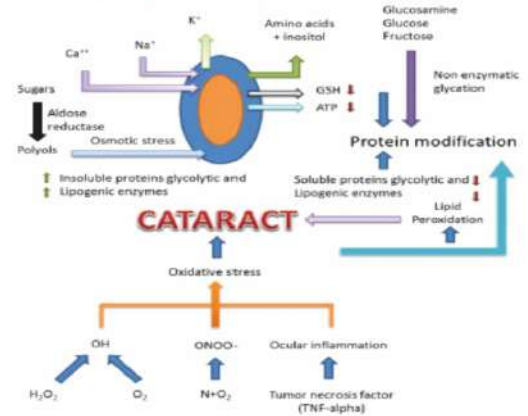
Vitamin C	100mg
Vitamin E	200Iu
Vitamin A	100Iu
Zinc	80mg
Luetin	10mg
Copper	1mg
Zeaxanthin	2mg
Lycopene	10mg



## Full eye model



## Pathophysiology of disease



# Pharmacological Action of each ingredients

### Lutein

- ▶ Filters out harmful radiations
- ▶ Helps to maintain proper lens density
- ▶ Maintains retinal health
- ▶ Protects macula from free radicals

### Zeaxanthin

- ▶ Protects cortex of lens from free radical damage

### Lycopene

- ▶ Protects against osmotic stress linked to diabetic cataract development

### Vitamin A

- ▶ Plays role in retinal response light & ocular growth

### Vitamin C

- ▶ Activates free radicals in ocular tissues
- ▶ Increases level of glutathione in blood

### Vitamin E

- ▶ Protects Retina from oxidation of free radicals

### Zinc

- ▶ Helps in retinal metabolism

### Copper

- ▶ Vital for retina
- ▶ Required for catalytic Activity of metal protein & SOD



## Dry Eye Syndrome

Dry eye disease, also known as keratoconjunctivitis sicca, is a condition that results in the inflammation of the eye and the tear-producing glands. This inflammation decreases the eye's ability to produce normal tears that protect the eye from irritation and keep it moisturized and lubricated. The tear film is composed of three intermingling layers:

**Oily layer - outermost layer prevents evaporation**

**Watery layer - middle layer moisturizes the eye**

**Mucous layer - inner layer allows adherence between the eye and the watery layer**

A disruption of the function of any one or more of these layers can cause dry eye symptoms.

Age-related macular degeneration (ARMD) is a degenerative condition of the macula (the central retina). It is the most common cause of vision loss in those 50 or older, and its prevalence increases with age. AMD is caused by hardening of the arteries that nourish the retina. This deprives the sensitive retinal tissue of oxygen and nutrients that it needs to function and thrive.

As a result, the central vision deteriorates.

Glucose+Protein-NH<sub>2</sub> → Schiff base

Amadori products

Undergo potential rearrangements

Advanced glycation end products (AGE)

Accumulation of AGE in the eye lens, contributes to accelerated cataractogenesis



Macular degeneration is a chronic disease that occurs when the macula of the eye breaks down or is damaged. The macula is part of the retina, which is located on the inside back wall of the eyeball and is responsible for central vision. Deterioration of the macula results in blurring and loss of central vision, which worsens over time, leading to blindness. This condition most commonly affects older adults so it is referred to as age-related macular degeneration (ARMD). Macular degeneration is the leading cause of visual loss in people over 60 years and the second leading cause of blindness (after cataracts) in those over 65.

## There are two forms of macular degeneration:

**Dry:** This is the most common form and is responsible for 90 percent of cases. It occurs when the macula breaks down and thins over time due to aging, free radical damage, and lack of blood and oxygen to the macula. Cellular debris accumulates under the retina and central vision slowly deteriorates over time.

**Wet:** Also known as hemorrhagic macular degeneration, this is less common but more serious, as it develops suddenly and progresses fast. It occurs when blood vessels grow under the macula, pushing against it and leaking fluid, which causes scarring of the macula and permanent damage to central vision.

Early detection and intervention can help to reduce visual loss from macular degeneration. It is possible to slow down the progression and prevent macular degeneration with lifestyle measures and supplements.



**Supplement Facts**  
**Presentation: Capsules**

### INDICATIONS

- ▶ PROTECT & TREAT ARMD,
- ▶ CATARACT
- ▶ DRY EYE SYNDROME PATIENT

**Contra-indications:**  
Product is contra-indicated in persons with Known hypersensitivity to any component of the product hypersensitivity to any component of the product.

**Recommended usage :**  
Adults: 1-2 capsules twice a day with water or liquid of choice twice daily  
"Do not exceed the recommended daily dose"

**Administration:** Taken by oral route at anytime with food.

**Precautions:** Do not exceed the recommended daily dose.

**Warnings:** If you are taking any prescribed medication or has any medical conditions always consults doctor or healthcare practitioner before taking this supplement.

**Storage:** Store in a cool, dry and dark place.

Manufactured by:



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Marketed by:

abcpharma

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& care  
for the  
eyes

 **optavit**<sup>®</sup>  
VITAMIN C & E, ZINC, LUTEIN, COPPER