

# Cone Dystrophy



## Description

Cone dystrophy describes a group of disorders, where there is degeneration of the cone cells of the retina. The retinal light receptors (photoreceptors) called 'cones' deteriorate which results in progressive loss of vision and loss of colour discrimination.

There are several different forms of cone dystrophy; all of which affect visual function, particularly function of central vision.

The condition is a form of retinitis pigmentosa (also known as retinal dystrophy). The retina is a thin layer of nerve cells that line the back of the eye. The photoreceptor cells of the retina react to light and send electrical impulses to the brain.

## Implications

In cone dystrophy, impaired cone function causes reduced central vision, inability to accurately perceive colour and extreme sensitivity to light (photophobia).

Complications include a decreased clarity of vision when looking straight ahead, and reduced ability to distinguish fine details.

The ability to read or recognise faces will be compromised and the central visual field will be markedly reduced. Subsequently, individuals will need to develop eccentric viewing techniques (looking off centre or beyond the object of interest to enable viewing with their side vision).

Individuals may also develop nystagmus (rapid, involuntary eye movements).

Low light situations may provide greater viewing comfort.

Research into treatment options, including vitamin therapies, continues to be explored by ophthalmology specialists.

## Accessing the curriculum

Consider enlarging print.

Consider the provision dark lined paper. Ensure strong contrast.

Avoid shiny surfaces and provide suitable lighting (task lighting may assist).

Provide additional time to adjust to different lighting conditions.

Use additional verbal descriptions to support instruction and understanding.

Allow the student extra time to process visual information, to use eccentric viewing techniques and to reduce visual fatigue. When fatigue is present, offer eye rest time.

Magnification aids may be useful.

Modify physical activities and provide detailed verbal instructions of all actions, skills and game rules (where necessary).

Click to see an [Interactive Eye Diagram](#) (web link)

**As this document contains generic information, please consult with the Vision Education Program in regard to individual educational needs.**

## References

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