



Amblyopia

Description

Amblyopia is decreased visual acuity in one or both eyes that occurs without detectable damage to the anatomy of the visual pathways or retina.

It develops when the brain does not receive clear visual input from the eyes (one or both), causing the brain and eye to not work effectively together, resulting in the visual parts of the brain to not develop fully.

Common causes of amblyopia are strabismus (misalignment of the eye), refractive errors where there is unequal visual acuity in each eye, and deprivation amblyopia, (obscuring of clear vision due to other conditions such as cataract or corneal scarring).

Amblyopia, most often, occurs in one eye.

Implications

Amblyopia results in a decrease in visual acuity (clarity or sharpness of vision).

The condition is a childhood concern, prevalent from birth to age 8, when visual development is most vulnerable to disruption. It is the most common cause of monocular vision (vision in one eye only) in infancy, early childhood or later childhood.

Depth perception difficulties are usual due to the misaligned visual input, while the ability to control eye (ocular) movement might also occur.

Treatment may involve correcting refractive errors (glasses), surgery for misaligned eyes, and/or patching of the 'better seeing' eye to encourage the brain to use the amblyopic eye. If left untreated, the brain shuts down the image from the affected eye.

Children undergoing chemical or physical patching may have difficulty seeing and accessing their school curriculum.

Accessing the curriculum

If glasses are prescribed, encourage their use.

Seat the student at the front of the class to ensure they have the best possible view of the teaching focus.

Consider enlarging print.

Consider the provision of dark lined paper.

Use additional verbal descriptions to support instruction and understanding.

Consider visual fatigue and allow extra time to process visual information.

In some instances, magnification aids may be required.

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

Cassin, B., & Rubin, M. L. (2012). Amblyopia. In *Dictionary of eye terminology* (6th ed.). Triad Communications, Inc.

Erin, J. N., & Topor, I. (2010). Instruction in visual techniques for students with low vision, including those with multiple disabilities. In A. L. Corn & J. N. Erin (Eds.), *Foundations of low vision: Clinical and functional perspectives* (2nd ed., pp. 398-441). AFB Press, American Foundation for the Blind, New York.

Ferrell, K. A. (2010). Visual development. In A.L. Corn & J. N. Erin (Eds.), *Foundations of low vision: Clinical and functional perspectives* (2nd ed., pp. 229-338). AFB Press, American Foundation for the Blind, New York.

Holbrook, M. C., Koenig, A. J., & Rex, E. J. (2010). Instruction of literacy skills to children and youths with low vision. In A. L. Corn & J. N. Erin (Eds.), *Foundations of low vision: Clinical and functional perspectives* (2nd ed., pp. 484-526). AFB Press, American Foundation for the Blind, New York.

Lions Eye Institute. (2018). *Eye health information. Interactive eye diagram.*

<https://www.lei.org.au/services/eye-health-information/eye-diagram/>

Schwartz, T. L. (2010). Causes of visual impairment: Pathology and its implications. In A. L. Corn & J. N. Erin (Eds.), *Foundations of low vision: Clinical and functional perspectives* (2nd ed., pp. 137-191). AFB Press, American Foundation for the Blind, New York.

For further information

Phone: 08 9402 6409

Email: sensory@education.wa.edu.au

Web: www.ssens.wa.edu.au