



Monocular Vision (Monocularity)

Description

Monocular refers to one eye - a single eye.

Monocular vision is loss of vision in one eye with adequate vision in the other eye.

When a person has the use of one eye only, they are considered “monocular”.

There are several causes of monocular vision including inflammation, vasculitis (inflammation of blood vessels), mechanical dysfunction, and surgical removal due to severe disease. However, the most common causes are damage to the eye (resulting in permanent vision loss) and amblyopia (disrupted visual development in one or both eyes due to poor visual input from the eye to the brain).

Implications

If the remaining functioning eye has regular visual acuity, the only concern with monocular vision is a reduction of depth perception.

Monocular vision will cause problems with approximately 30 degrees of visual field on the affected side (blind side). This loss (temporal field loss) may cause challenges in sports and driving; however, such difficulties can be alleviated with turning of the head.

Depth perception reduction will impact the ability to accurately track moving objects, to judge distances, and to perceive comparative heights and overlapping objects. Fortunately, individuals become adept at relying on the summation of nine weaker depth perception cues: accommodation, linear perspective, interposition, texture gradient, relative size, light and shadow, relative brightness, aerial perspective and motion parallax to support visual interpretation.

Visual adaption to monocular vision occurs over time. Tasks that were initially difficult become easier, such as reading and descending stairs.

Accessing the curriculum

Ensure all provided print materials are clear, uncluttered and strongly contrasting.

Seat the student at the front of the class (toward the side of the weaker eye) to ensure they have the best possible view of the teaching focus.

Use additional verbal descriptions to support instruction and understanding.

Encourage the use of a compensatory head turn to access the environment.

Allow the student extra time to process visual information where depth perception is required.

In the early stages of monocular vision, if visual fatigue is evident, offer eye rest time.

Modify physical activities and provide detailed verbal instructions of all actions, skills and game rules (where necessary). Provision of verbal cues in throwing and catching activities may assist.

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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