

Monocular Vision: Vision in one Eye

(Service for Children with Sensory Needs

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What are the implications?

Field of vision: On the affected side the field of vision is reduced by about one third. A child with monocular vision may be unaware of people and objects on his/her blind side.

Depth of vision: A child with sight in one eye may have difficulty judging distances and depth.

Hand-eye co-ordination: Difficult activities can include pouring liquids, threading, cutting out and tying shoelaces.

Judgement of speed and distance: Games or playground activities may be frightening because of fast moving groups of children or objects.

Safety: Safety is of prime concern when dealing with a child who has monocular vision.

Strategies to support inclusion...

In the classroom

Make sure that everything of importance is either in front of the child or to the good side.

Check that the child is in the best position during demonstrations, assembly, story time and during lessons when the overhead projector is used.

The teacher or partner should sit on the child's good side when working with them.

When using text, this should be placed on the child's good side.

A child with monocular vision should not be expected to share a worksheet or text book.

Try to maintain eye-to-eye contact with the child's sighted eye.

Outside the classroom

Children with monocular vision may be reluctant to join in some activities and may need some encouragement.

Ball games will be more difficult for a child with monocular vision.

During some PE lessons the child will need to be positioned so that he/she has a good view of the pitch with their 'seeing eye'.

Try to keep walkways free of obstacles and be aware of half opened windows and doors. The child may have difficulty judging the depth of stairs and kerbs. Vigilance and extra supervision may be needed in the playground and in PE, particularly when using equipment.

Road safety issues should be emphasised, as the child may be less aware of traffic approaching on their 'blind side'.

Monocular Vision

Monocular vision means 'sight in one eye only'. Many children with monocular vision experience few or no problems at all in their daily life, adapting very quickly to their change in sight.

Children will usually adapt by turning their head and body more so that they can see things in the periphery of their vision. They will also try to position themselves, when in a group, so that people are sitting to their good side thus reducing the need to turn their bodies, this may become a subconscious action.

Even when the child has excellent vision in their unaffected eye, their nose will block out some vision, this means that they may not get a complete picture of things as quickly as a person with ordinary vision.

Every child is different and although most children adapt well some will struggle with depth perception, judging speed of moving targets and tasks that rely on good hand-eye coordination – such as throwing and catching a ball. Many children with monocular vision appear clumsy and un-coordinated – but this usually improves as they get older.

How monocular vision can affect a child

Field of Vision

The field of vision is reduced by approximately 20%. However, the good eye can see surprisingly far into the other half of the visual field.

A child may be unaware of people and objects on their blind side. This can be especially hazardous in an unfamiliar, busy or cluttered environment.

A child with loss of vision in one eye may experience difficulties with materials and gestures presented on the blind side and mobility in unfamiliar surroundings.

Depth of vision

A child with sight in one eye may have difficulty judging distances and depth.

Although the child will learn to turn their head to compensate for the loss of field of vision, there is however, a gap over the shoulder which cannot be viewed. It is possible to relearn how to see in depth.

Eventually the remaining eye adjusts and people with monocular vision may need to learn to turn their head more.

A child with sight in one eye lacks three-dimensional stereoscopic vision and they may sometimes not recognise steps or kerbs unless clearly marked.

Changes in floor surfaces, ie from carpet to lino, may be mistaken for different levels.

Hand-eye coordination:

Difficult activities can include pouring liquid, threading, cutting out and tying shoelaces.

Judgment of speed and distance:

Games or playground activities may be frightening because of fast moving groups of children or objects. Children may get 'spooked' or jumpy when someone approaches quickly on their blind side.

Safety

When leading a young child by the hand, hold the hand on the blind side to protect the child.

There are few, if any, school activities that are limited by having only one good eye. Most children develop their own coping strategies and adapt very quickly.

Safety is of prime concern when dealing with a child who has monocular vision, which is why protective eyewear and sports goggles are recommended during PE and some other activities. Extra care should be taken in lessons involving potential hazards, e.g. science, woodwork, cookery and all staff should be informed of the child's visual restrictions.

In the classroom:

- Make sure everything of importance is either in front of the child or to the good side.
- Check that the child is in the best position during demonstrations, assembly, story time and during lessons when an overhead projector is used.
- The teacher or work partner should sit on the child's good side when working with them.
- When approaching the child from behind, try to approach on his/her sighted side.
- Try to maintain eye-to-eye contact with the child's sighted eye.
- A child with monocular vision should never be expected to share a worksheet or text book. When using text, the text should be placed on the good side.
- Avoid unnecessary hazards, eg obstacles on the floor, half open doors/windows

Outside the classroom:

- Children with monocular vision may be reluctant to join in some activities, particularly racquet games, and may need some encouragement.
- Ball games may be more difficult for a child with monocular vision
- During some PE lessons the child may need to be positioned so he/she has a good view of the pitch with their seeing eye.
- Road safety issues must be emphasised as the child may be less aware of traffic approaching on their blind side.

Providing there is awareness by all concerned, the child with monocular vision often does not find it a disability. There is always, of course, an underlying anxiety about maintaining sight in the good eye and protective goggles are strongly recommended by medical professionals when taking part in sporting activities.

Driving

Most monocular-sighted people can hold an ordinary driving licence, although they will need to inform the DMV and their insurance company of their condition.