

- **Does your child hang his head down to look down?**
- **Does your child miss obstacles when things are on his left or right side?**

Visual fields are used to describe the area of a child's surrounding environment that they can see at any one time. A person's typical visual field extends to 180 degrees horizontally and 60 degrees vertically. **When a child's eyes focus straight ahead, the amount of space available for visual awareness is their visual field.** Disorders, disease, or damage to the brain anywhere along the visual pathway from the eye to the brain can result in a visual field loss or reduced or absent perception in any part of the visual field (Lueck & Dutton, 2015). Sometimes this is referred to as "visual neglect" (Ting et al., 2011) and is best addressed with functional strategies. A child with visual field loss may **see a limited portion of the entire area** around them with one or both eyes. A child with visual neglect may **have no idea that anything could be on that side.** Imagine sitting in the stands of a baseball game and a ball suddenly pops in the air and everyone in the crowd flinches as they notice the moving ball. The people react to the ball because of their visual field awareness. Examples of children with visual field loss might be those who have anophthalmia, a form of hemianopia, or Cerebral Visual Impairment, among others.

*Kevin is a 23-month-old male with homonymous hemianopia. His mother, Karen, reports that when Kevin is playing with his two older siblings in the backyard, he often misses when a ball is tossed toward him from the left. Likewise, as Kevin has learned to move independently, he often misses steps when he walks down the stairs or when walking outside off a curb. Karen notes that Kevin turns his head to the left when his brothers call his name and when he walks around in new places, and Kevin usually keeps his head looking down to avoid tripping. After gathering information about their home and daily routines, the early intervention teacher of the visually impaired and Karen identified strategies to help Kevin with his field loss. Kevin will be introduced to a **pre-cane device** to allow him to walk around and detect drop-offs (steps down, curbs, or obstacles). Karen is going to use yellow tape to highlight the first step of the landing of the stairs as well as the first step off the patio. They also discussed how to communicate with Kevin's brothers about presenting objects on Kevin's right side to make it easiest for him to see toys.*

Visual Field Awareness Strategies within Daily Routines:

Play/Floor Time

- ___ If you place a motivating object (favorite toy) in the field the child cannot see so he or she has to work to find it, start by **putting it next to their arm or leg so they can feel it first.**
- ___ Encourage the child to **line up toys** across midline (Blocks, cars, trains)
- ___ Work on rolling/scooting/crawling toward the child's field loss- **use sound to motivate**
- ___ Sing songs to **encourage body part awareness** on both sides
- ___ Make sure child is **seated comfortably** so they do not have to work hard to feel supported and use their vision.
- ___ Play 'I Spy' while child is still; have child use peripheral vision or a head turn to **find a familiar object in the room.**

Dressing/Diapering

- ___ Always show the child the article of clothing in their **preferred visual field first**.
- ___ Present an article of clothing in one visual field and move it until child indicates they can no longer see it.
- ___ Work on **body awareness skills** while dressing (Sing or say, 'left arm!' as you direct the child's left arm through the sleeve of a shirt). Afterward, encourage the child to find an object in the room that is also on their left side.

Meal Time

- ___ Present cups, bottles, eating utensils on the **preferred visual field side** of table/tray during each meal.
- ___ Slightly prop the plate up on a slant so the plate is not located in lower visual field.
- ___ Use a **solid-colored placemat** to visually alert a child where to look for items.
- ___ Allow the child to place items on the tray for his or her visual convenience.
- ___ Position child so that they do not have to turn their head to see the plate.

Lap Time

- ___ Use a toy that has no sound or light and encourage child to visually locate the source of sound/light when it is in their less preferred visual field.
- ___ Encourage children to **follow moving objects across their midline**.
- ___ Hold or keep books in child's preferred visual field.
- ___ Allow **the child to hold the books** when reading together.

Time Outdoors

- ___ Encourage children to walk with a toy shopping cart, hula-hoop or push toy (i.e., toy vacuum cleaner, toy lawnmower, poppers) as a **pre-cane device** as they walk around so they don't have to keep their head down while walking.
- ___ Use **familiar, specific language** when explaining what to look for when outside or in unfamiliar environments.
- ___ Give the child **wait time to scan** for named or described objects on the side with the visual neglect.

Bed/Bath Time

- ___ Place a **quiet, peaceful visual target** next to the child's bed on the side with the visual neglect (i.e. lava lamp, aquarium, star projector).
- ___ Play a counting game and have the child point to an object as you count what they identify.
- ___ Talk about both sides of their body as they wash with a loofah or a washcloth.

Lueck, A. H., & Dutton, G. N. (2015). *Vision and the brain: Understanding cerebral visual impairment in children*. AFB Press.

Ting, D. S. J., Pollack, A., Dutton, G. N., Doubal, F. N., Ting, D. S. W., Thompson, M., & Dhillon, B. (2011). Visual neglect following stroke: Current concepts and future focus. *Survey of Ophthalmology*, (2)56. 114-34. Doi:10.1016/j.survophthal.2010.08.001.