

- **Does your child hang his head down to look down?**
- **Does your child miss obstacles when things are on his left 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 perception 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" and it is often found with auditory or tactual neglect (Wray, 2002). A child with visual neglect or visual field loss may not see past midline, but they may also **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. Any child who demonstrates the behaviors of cortical visual impairment (CVI) may have visual field loss due to neurological damage to an area of the visual pathway. An example of damage to a visual pathway might be that a child has a stroke in utero, leaving them with damage to one side of the brain, which may cause a visual field defect.

*Kevin is a 23-month-old male with a CVI diagnosis and a CVI range score in phase II. His mother, Karen, reports that when Kevin is playing with his two older siblings in the backyard, he often misses when a ball is being 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 so as to avoid tripping. After gathering information about their home and daily routines, the early intervention teacher of the visually impaired and Karen identify strategies to help Kevin with his field loss. Kevin will be introduced to a precane 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 off 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.*

### **Distance Strategies within Daily Routines:**

#### Play/Floor Time

- \_\_\_ Place motivating object (favorite toy) in the field child cannot see so he has to work to find it.
- \_\_\_ Encourage child to line up toys across midline (Blocks, cars, trains)
- \_\_\_ Work on rolling/scooting/crawling with child's field loss: encourage the child to roll to the left to find object on his left.
- \_\_\_ Make sure child is seated comfortably so he does not have to work hard to feel supported and use 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 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 (say, 'left arm!' as you direct child's left arm through the sleeve of a shirt). Afterward, encourage child to find an object in the room that is also on his left side.

### Meal Time

\_\_\_ Present cups, bottles, eating utensils on the favored 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 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 he does not have to turn his head to see his 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.

### Time Outdoors

\_\_\_ Encourage child to walk with a toy shopping cart, hula-hoop or push toy (toy vacuum cleaner, toy lawnmower, poppers etc.) as a pre-cane device as he walks around so he doesn't have to keep his head down while walking.

\_\_\_ Use familiar language when explaining what to look for when outside or in unfamiliar environments.

\_\_\_ Give the child 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.

\_\_\_ Play a counting game and have child point to an object as you count what they identify.

\_\_\_ Hold or keep books in child's preferred visual field.

\_\_\_ Allow the child to hold books when reading together.