

## Visual Perception

What is visual perception?

Why is it important?

Building blocks necessary to develop visual perception include:

You can tell there are problems with visual perception if the child:

When you see difficulties with visual perception, you might also see difficulties with:

What can be done to improve visual perception?

Activities that can help improve visual perception include:

Why should you seek therapy if you notice difficulties with visual perception?

Left untreated, difficulties with visual perception can lead to:

What type of therapy is recommended for visual perception difficulties?

If you are concerned about visual perception difficulties, the next step is:

Other relevant resources:

### What is visual perception?

Visual Perception refers to the brain's ability to make sense of what the eyes see. This is not the same as visual acuity, which refers to how clearly a person sees (for example "20/20 vision"). A person can have 20/20 vision and still have problems with visual perceptual processing.

### Why is visual perception important?

Good visual perceptual skills are important for many every day skills such as reading, writing, completing puzzles, cutting, drawing, completing math problems, dressing as well as many other skills. Without the ability to complete these every day tasks, a child's self esteem can suffer and their academic performance is compromised.

### Building blocks necessary to develop visual perception include:

- **Sensory processing:** Accurate registration, interpretation and response to sensory stimulation in the environment and one's own body.
- **Visual attention:** The ability to focus on important visual information and filter out unimportant background information.
- **Visual discrimination:** The ability to determine differences or similarities in objects based on size, colour, shape, etc.
- **Visual memory:** The ability to recall visual traits of a form or object.
- **Visual spatial relationships:** Understanding the relationships of objects within the environment.
- **Visual sequential-memory:** The ability to recall a sequence of objects in the correct order.
- **Visual figure ground:** The ability to locate something in a busy background.
- **Visual form constancy:** The ability to know that a form or shape is the same, even if it has been made smaller/larger or has been turned around.
- **Visual closure:** The ability to recognise a form or object when part of the picture is missing.

### You can tell there are problems with visual perception if the child:

- Has trouble completing puzzles or dot to dots.
- Has difficulty planning actions in relation to objects around him/her.
- Has difficulty with spatial concepts such as "in, out, on, under, next to, up, down, in front of."
- Has difficulty differentiating between "b, d, p, q;"
- Reverses numbers or letters when writing.
- Looses place on a page when reading or writing.
- Has difficulty remembering left and right.
- Forgets where to start reading.
- Has difficulty sequencing letters or numbers in words or math problems.
- Had trouble remembering the alphabet in sequence,
- Has difficulty coping from one place to another (e.g. from board, from book, from one side of the paper to the other).
- Has problems in dressing (i.e. matching shoes or socks).
- Has trouble discriminating between size of letters and objects.

- Has trouble remembering sight words.
- Has difficulty completing partially drawn pictures or stencils.
- Has difficulty attending to a word on a printed page due to his/her inability to block out other words around it.
- Has difficulty filtering out visual distractions such as colorful bulletin boards or movement in the room in order to attend to the task at hand.
- Has trouble sorting and organizing personal belongings (e.g. may appear disorganised or careless in work).
- Has difficulty with hidden picture activities or finding a specific item in a cluttered desk.

### When you see difficulties with visual perception, you might also see difficulties with:

- **Academic performance:** The ease with which a student is able to complete academic tasks.
- **Attention and concentration:** Sustained effort, doing activities without distraction and being able to hold that effort long enough to get the task done.
- **Self regulation:** The ability to *obtain*, *maintain* and *change* one's emotion, behaviour, attention and activity level appropriate for a task or situation in a socially acceptable manner.
- **Behaviour:** May avoid or refuse to participate in activities that require visual perceptual skills.
- **Frustration:** With precise eye and hand tasks.
- **Avoidance:** Preference to get others to perform tasks for them under their direction, rather than actually doing themselves (e.g. "Daddy, draw me a house", or "build me a rocket", with refusal to do it themselves).
- **Organisation:** May have difficulty keeping track of and organising belongings.



## What can be done to improve visual perceptual skills?

- **Visual cues:** For example, use a coloured dot or sticker to show what side of the page to start writing on or reading from or place a texta mark on stick on the inside of the child's shoes so they know which foot to put them on (dots face inwards).
- **Directional arrows:** To help with direction or starting position (e.g. for letter formation).
- **Graph paper:** To help with word spacing and sizing.
- **Highlight the line:** To encourage correct line alignment.
- **Paper copies:** Provide the child what is to be copied on a piece of paper to put on their desk, rather than copying from the board.
- **Alphabet strip:** Place on the child's table that they can refer to for correct letter formation.
- **Eliminate clutter:** Encourage the child to keep their desk clear of distractions and clutter.
- **Position desk away from distractions:** Sit the child's desk in an area closer to the front to avoid the distractions of other students.
- **Eliminate visual distractions:** Remove as much of the visually stimulating classroom wall decorations as possible, especially near the child's desk.
- **Keep worksheets clear and simple:** Avoid unnecessary decorations (e.g. place only one activity on a page).
- **Outline boundaries:** Use a red marker to outline the boundaries for coloring, mazes or cutting tasks.
- **Break visual activities into small steps:** When working on puzzles, present one piece at a time, and cover unneeded pieces of the puzzle.

## Activities that can help improve visual perception include:

- **Hidden pictures games**, in books such as "Where's Wally".
- Practice completing partially drawn pictures.
- **Dot-to-dot worksheets or puzzles.**
- **Review work:** Encourage your child to identify mistakes in written material.
- **Memory games:** Playing games such as Memory.
- **Sensory activities:** Use bendable things such as pipe cleaners to form letters and shapes (because feeling a shape can help them visualize the shape). The letters can then be glued onto index cards, and later the child can touch them to "feel" the shape of the letter.
- **Construction-type activities**, such as Duplo, Lego or other building blocks.

- **Flash cards** with a correct letter on one side and an incorrectly formed letter on the other side. Have the child try to draw the letter correctly, then turn over the card to see if it is right. (Have them write in sand or with finger paint to make it more fun)
- **Word search puzzles** that require you to look for a series of letter.
- **Copy 3-D block designs**
- **Identify objects by touch:** Place plastic letters into a bag, and have the child identify the letter by "feel".

### Why should you seek therapy if you notice difficulties with visual perception?

- To improve ability in and persistence with visual tasks.
- To ensure a child is able to engage in/complete academic tasks.
- To help a child to complete self care tasks, such as putting shoes on the right feet.
- To avoid a child becoming disengaged in an academic environment due to difficulties completing visual activities (e.g. writing, cutting, drawing).
- To avoid frustrations experienced by parents, teachers and children when a child is struggling to remain engaged in academic activities.
- To help maintain and develop a positive sense of well being.
- To ensure that a child doesn't fall behind their peers in development of skills such as handwriting, spelling and maths.

### Left untreated, difficulties with visual perception can lead to:

- Anxiety and stress in a variety of situations leading to difficulty reaching their academic potential.
- Difficulties completing busy work sheets or following visual instructions.
- Difficulties accessing the curriculum because unable to attend to the appropriate visual information.
- Difficulties dressing independently.
- Difficulties completing exams due to difficulty blocking out unimportant visual information.
- Poor self esteem when a child compares their abilities with their peers.
- Poor handwriting skills.

## What type of therapy is recommended for visual perception difficulties?

If your child has difficulties with visual perception, it is recommended they consult an Occupational Therapist.

If there are multiple areas of concern (i.e. beyond just visual perception) both Occupational Therapy and Speech Pathology may well be recommended to address the functional areas of concern. This is the benefit of choosing Kid Sense which is a multi-disciplinary service provider.

## If you are concerned about visual perception difficulties, the next step is:

- Call Kid Sense for an obligation-free discussion with a paediatric professional on ph 1300 66 00 67.
- Take the free on-line Self Assessment to obtain a visual representation of how your child is developing (doing this in conjunction with your teacher can be really helpful too).
- Visit the Child Development *Ages and Stages* Charts and Checklists to see what skills are expected at your child's age.
- Go to Booking an Appointment for more information.
- Review the fact sheets below for more relevant information.

## Other relevant resources:

- Sensory processing (fact sheet)
- Self care skills (fact sheet)
- Visuals for organisation (fact sheet)
- Executive functioning (fact sheet)
- Following instructions (fact sheet)
- Dyspraxia (fact sheet)
- Developmental Coordination Disorder (fact sheet)
- Sports participation (fact sheet)