



VISUAL PERCEPTION-WHAT DO WE SEE

THROUGH THE MIND'S EYE? ©

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Of the sensory systems that we discuss when we talk about sensory integration, visual perception (along with auditory perception) is one of the most familiar and commonly understood. Visual perception refers to the *meaning* that our brains give to the information that we see. For example, if you look at the following design it may appear only as a series of lines with no real meaning:



The lines spell the word "Ivy" upside down. Now the lines have a meaning when you look at them. An optometrist checks our eyes to ensure they are working well to see the world around us. Visual *perception* allows us to make sense out of what we see. Good visual perception is obviously needed to read, write, use scissors and draw. We also need visual perception to keep from bumping into things, to direct a ball toward a goal post on a soccer field and to follow a map to a desired destination. There are many functions related to visual perception. Figure ground perception refers to the ability to see something that is part of a bigger or confusing picture. For example, finding a roll of tape in a drawer or identifying your child while he is climbing on the play equipment at the park requires figure ground perception. Mental imaging is another aspect of visual perception. We use this skill to figure out how to arrange furniture in a room (sometimes we need a few attempts!) or planning to put paper in a printer so the letterhead comes out correctly. Eye hand coordination is also a part of visual perception. We need this skill to coordinate the actions we use to serve a tennis ball, to tie our shoes (at least when we are first learning) and to pull a lever at the right time on a pinball machine. It is easy to see how problems in visual perception can create many hardships in the classroom, on the playground and at home.

Therapists concerned with sensory integration usually think of visual perception as an "end product" of good tactile, proprioceptive and vestibular sensory processing. In other words, these basic systems must work well for a higher level system, like visual perception to develop. This is why a child's therapist may select therapeutic activities that do not, at first, seem obviously related to the concerns at home or school. For example, a child who has trouble learning to write may have problems with his vestibular sense which makes it difficult to coordinate his eye movements when his head is moving. He may have poor proprioception which makes it difficult to judge how hard to push on the pencil or how to position himself correctly in the chair. Poor tactile perception may interfere with his ability to hold a pencil properly. Therefore, therapists often work first on these foundational skills to help higher level skills, like visual perception, come along more easily.

What You Can Do To Help

The following are some ideas that can be used to help the visual perception systems develop and function optimally:

1. Encourage your child to build things-with blocks, couch cushions, cardboard or plastic boxes- or any other found materials. You can help your child to develop visual perception by both making structures for your child to copy and also to have your child make his own creations (ones that you might try to copy to add to the fun).
2. Make puzzles, mazes and other visual games that are at the right developmental level for your child available and easy to access. You may need to start with simple ones, if this is an area in which your child might need some help.
3. Books and games such as "Where's Waldo" and "I Spy" can be helpful for developing figure ground perception. You can also ask your child to "spot" signs, cars or other landmarks while on walks or driving in the car.
4. Parents often know how important it is to read to their children and to provide visually appealing toys and designs in their rooms. Finding ways to help your child interact with

these important visual elements such as stopping to point to objects in a book or to trace designs on the wall will make the visual experiences more meaningful and long lasting. Active participation always trumps passive input!

5. Practice “drawing” shapes and objects in various tactile media, such as sand, finger paint, shaving cream, etc. The touch and visual systems develop closely with one another and feeling the shape, size and texture of something will reinforce the visual concept as well.
6. Similarly, matching shapes or objects felt in the hands with pictures of objects will further reinforce the co-development of tactile and visual perception.
7. Simple and fun eye-hand coordination games such as tossing, catching and batting with balls or other objects will support depth perception and smooth eye movements in conjunction with visual perception and motor skills.
8. With increased access to computer and hand held games, some children will spend a lot of time watching screens. While many of these games and apps can be engrossing for a child, those that involve some problem solving and physical interaction (such as the on screen games that involve activities like bowling or tennis) will be most supportive of your child’s overall development.
9. Be aware of too much visual stimulation-too many visual distractions in a bedroom or study area can be distracting for a child who is sensitive to visual stimuli or who has trouble discriminating one thing from another visually. If your child seems especially sensitive to sunlight, to certain colors or contrasts of colors, or to particular shapes, consider ways you can reduce the irritation by removing these sensory features of a situation. Helping your child to understand that he may be more sensitive than others to these experiences may also help him to cope more effectively.

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