

Sensory Learning Center builds new pathways to better perception, understanding, and learning

Sensory Learning Center of Toledo compares proper sensory function to a stack of three wooden blocks, with the bottom block representing the visual system, the middle block representing the auditory system, and the top block representing the vestibular (balance) system. All three blocks—visual, auditory, and vestibular—must be in alignment for proper sensory function to occur.

"If three wooden blocks in a stack are perfectly aligned, you can balance a really heavy object, such as a bowling ball, on top of the stack and it will remain stable. But if one block is just slightly off center, the whole stack collapses under the weight of the object," Dr. Schmakel explains.

For children with sensory-processing difficulties related to an autism-spectrum disorder, ADD or ADHD, OCD, non-verbal learning disorder, birth trauma, brain injury, or other cause, the sensory "stack of blocks" has, at some point, shifted out of alignment.

According to Dr. Schmakel, this shift can occur while the child is still in the mother's womb or during the birth process. For example, if the mother is put on bed rest prior to delivery, the developing infant may not receive the necessary vestibular input to develop the correct sensitivity to balance. Also, during a normal delivery, the baby's brain receives just the right amount of pressure to help coordinate the brain and brain stem. If this pressure is non-existent, as with a caesarian birth, or excessive, as with a prolonged delivery, the infant's visual, auditory, and vestibular systems may not link up together properly.

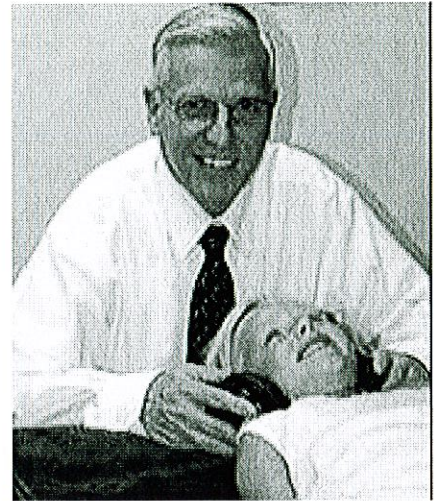
The good news is, it is possible to realign the visual, auditory, and vestibular systems through the Sensory Learning Program, a non-cognitive, non-invasive, foundational approach that uses light, sound, and motion to stimulate these three systems simultaneously. In essence, the program improves

sensory function by creating new neural pathways in the brain.

The Sensory Learning Program was developed by Mary Bolles, a graduate of Bowling Green State University and the executive director of Sensory Learning Center International, Inc. While seeking help for her son, Jason, who was exhibiting behaviors consistent with children on the autism spectrum, Bolles discovered the benefits of light therapy on sensory learning. She then incorporated into her program ground-breaking auditory-therapy techniques that were developed by French physician Guy Berard as well as innovative vestibular-stimulation techniques being practiced by Canadian occupational therapist A. Jean Ayers. The resulting program unites three modalities—visual, auditory, and vestibular—into one 30-day, drug-free intervention to improve perception, understanding, and the ability to learn.

Why is it so important to combine all three modalities? Visual, auditory, and vestibular inputs all enter the brainstem very close to one another, and each sense is intricately connected with the others. For example, the sensory organs for hearing and balance—the cochlea and the labyrinth structure—are both located in the inner ear and share the same fluid. Of course, our vision gives us the greatest sense of where we are in space, which has a dramatic impact on our sense of balance. Therefore, notes Dr. Schmakel, "Stimulating only one system may yield some improvement in sensory learning, but far more profound results are achieved through a holistic approach—when all three are stimulated simultaneously."

The Sensory Learning Program is comprised of two 30-minute sessions each day for 12 consecutive days (including weekends and holidays). Each session is an individual sensory experience, and the repetitive sensory activation of each session builds on the session before. After twelve days of sessions in the Sensory Learning Center, the individual takes home a portable light instrument to continue the program, with a 20-minute session each



Dr. Schmakel has worked with hundreds of individuals with learning issues related to visual processing problems.

morning and evening for the next 18 days (for a total of 30 days).

Participants who complete the program typically experience an overall improvement in perception, understanding, and the ability to learn. "Specifically, we see improvement in participants' processing time, sensitivities, sleep patterns, awareness and attention, speech, memory, expression, and social skills," states Dr. Schmakel.

Participants may see some subtle changes immediately, while significant results are often observed during the initial 12 days of treatment. Cumulative skills may continue to unfold over the following weeks or months. Also, the benefits are lasting, so most participants need to complete the Sensory Learning Program only once.

Dr. Schmakel also notes that, "While the Sensory Learning Program may not be the only therapy that is necessary, it is the first therapy that should be tried. Not only does the program itself yield significant benefits, but it is also foundational. It improves the ground-level sensory perception of the child, thereby improving the effectiveness of therapies that follow."

For more information about the Sensory Learning Center, please call 419-578-0057 or visit www.sensorylearning-toledo.com.

