

Sensory Integration

Sensory integration is the process by which the nervous system receives, organizes, files, and integrates sensory information in order to make an appropriate response to a particular situation. The development of the sensory integrative process begins in utero and continues after birth through ordinary childhood activities. There are three major sensory systems: vestibular (response to movement and gravity), tactile (touch), and proprioceptive (muscle and joint input). Sensory integration provides a foundation for more complex learning and behavior. People respond to touch, movement, sights, smells and sounds. Some self-stimulation behaviors such as spinning, rocking, and hand flapping that are common for individuals with autism may also be the result of sensory integrative dysfunction.

Dr. A. Jean Ayres, an occupational therapist, developed the theory of sensory integration to explain a variety of neurological disorders in children. Literature from the fields of neuropsychology, neurology, physiology, child development and psychology has contributed to the development of the theory and resultant intervention strategies. Sensory integration is just a theory, and there is limited research that supports it. However, there is a vast amount of anecdotal support that sensory integration therapy does work for some individuals.

If an individual is suspected of having difficulty processing sensory information correctly, a qualified occupational or physical therapist can conduct an evaluation. An evaluation usually consists of both standardized testing and structured observations of responses to sensory stimulation, posture, balance, coordination, and eye movements. If necessary, the therapist will make recommendations for appropriate therapy intervention based upon the test results. Sensory integration therapy does not usually focus on the development of specific skills. Rather, therapy involves a variety of activities that provide sensory stimulation to aid in the maturation of the sensory systems to make appropriate automatic responses.

References:

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