

What is Sensory Integration?

An estimated one in 20 children have sensory difficulties.¹

Sensory Integration (SI) refers to the ability to take in information, organize it and then use it to successfully participate in life. Everyone receives constant messages from their senses. Most people are able to use these messages to appropriately interact with their environment.



For example, as you are reading this, your clothing is providing tactile information to your skin. You are able to quickly integrate this information while simultaneously maintaining attention to visual input to continue reading this poster. Being able to quickly process and integrate sensory information promotes learning and development.

Theory Behind Sensory Integration

The theory of SI was the life work of A. Jean Ayres, Ph.D, OTR; which continues to evolve through the work of researchers and clinicians worldwide.

The theory proposes that:

SI is a neurobiological process that organizes sensation from one's body and the environment, making it possible to use the body effectively within the environment.

Sensory experiences within the context of meaningful activity elicits an adaptive response which in turn results in changes in brain function as well as behavior.²

Pathways.org Resource Tool Chest

Sensory Motor Checklists (SMC)

It is crucial to look at a child's overall tendencies and clusters of behavior and acknowledge that all children develop at their own variable rate. However, if a child is consistently demonstrating behaviors indicative of difficulties integrating sensory information, an early referral is crucial.

The first people to recognize a child's functional difficulties are the parents and primary care professionals. The SMC were developed to help parents/healthcare professionals identify children who are displaying signs and symptoms of sensory motor issues. This will allow for a path to appropriate assessment and interventions as early as possible.

The SMC are divided into age groups and organized in four topic areas:

- play and social skills
- motor coordination
- daily activities
- self-expression

Educational Films for Parents and Professionals



Learn about the importance of early SI therapy from expert physicians and nurses on the front line.



Watch how therapy helps Ryder overcome sensory issues and learn the joy of playing with peers.

If Sensory Issues are Suspected

The next step is to schedule an evaluation with a pediatric occupational therapist.

Occupational therapists using a sensory integration frame of reference (OT-SI) provide evaluation and interventions designed to identify, prevent, and remediate deficits related to a child's:

- sensory/perceptual skills
- motor and praxis skills
- sensory sensitivities, and
- related patterns of functional performance³⁻⁶



A comprehensive therapy program addressing all issues will help infants and children reach their fullest potential.

AOTA and SI

The American Occupational Therapy Association (AOTA) recognizes SI as one of several theories and treatment approaches used by occupational therapists. Therapists using OT-SI approach help children improve their health and participation through engagement in everyday activities.⁷

1 Ben Saxon A, Briggs-Gowan MJ, Carter AS. (2009). Sensory over-responsivity in elementary school: prevalence and social-emotional correlates. J Abnorm Child Psychol, 37, 705-716

2 May-Benson TA, Baraza MA, Rannagan J. (2011) Review of medical policy of UnitedHealthcare: Sensory integration therapy. Unpublished document submitted to the American Academy of Pediatrics.

3 Ayres AJ. (1979) Sensory integration and the child. Los Angeles: Western Psychological Association.

4 Bundy AC, Lane SJ, Murray EA. (2002) Sensory integration: Theory and practice (2nd ed), Philadelphia: F.A. Davis.

5 Dunn W. (2001) The sensations of everyday life: Empirical, theoretical, and pragmatic considerations. Am J Occup Ther 55:608-620.

6 Parnham D, Mailloux Z. (2005) Sensory integration. In J. Case-Smith (Ed.), Occupational therapy for children (5th ed, pp 356-409). St. Louis: Elsevier Mosby.

7 American Occupational Therapy Association. (2009) Providing occupational therapy using sensory integration theory and methods in school-based practice. Am J Occup Ther, 63:437-456.

