

CranioSacral Therapy for Children with Sensory Integration Dysfunction

by Rebecca Flowers, OTR/L, BCP, CST-D



“Hello” and “kay” are a few of John’s favorite new words. John is a bright-eyed four-year-old born with a rare neurological disorder. John’s primary symptom is hypotonia, characterized by difficulty moving against gravity.

John’s doctors predicted that he would never walk or talk, and would be on medication for seizures his entire life. Lately though, John has been receiving a combination of CranioSacral Therapy (CST) and Sensory Integration (SI) Therapy, with spectacular results. John is now moving around and vocalizing better, and he’s no longer on anti-seizure drugs.

What is the CranioSacral System?

The membranes and cerebrospinal fluid that surround and protect the brain and spinal cord comprise the body’s craniosacral system. This important system extends from the cranium (the skull, face, and mouth) down to the sacrum (the tailbone area). Any restrictions in the membranes of this system can directly affect central nervous system performance, causing a wide range of sensory, motor, and neurological problems.

What is CranioSacral Therapy?

CranioSacral Therapy is a non-invasive technique that facilitates the body’s own healing process by monitoring the health of the nervous system. Using a soft, light touch, typically no more than the weight of a nickel, the CranioSacral therapist palpates the craniosacral rhythm, to locate and correct restrictions in the body that impair nervous system functioning.

When a restriction releases during a CST treatment session, the patient may not even notice the affect. Sometimes changes manifest themselves hours or even days later. Often, they can be profound and dramatic, and involve tissue memory releases as well. A child may become noticeably calmer, or have increased function in some skill. Effects usually become more evident over time with multiple treatment sessions.

What is Sensory Integration?

Sensory Integration (SI) is something our bodies do automatically. Organs take input from the external environment through touch, sound, sight, smell, taste, movement, and proprioception (information received through our joints and large muscles). If the central nervous system processes what is going on in the body and environment accurately, a person reacts appropriately. However, in many children with delays, that is not the case.

What is Sensory Processing Disorder?

When the nervous system does not process sensory information accurately because of dysfunctions with sensory registration, integration, and modulation, Sensory Processing Disorders (SPD) occur. An affected child may be either over-reactive or under-reactive to touch, sound, movement, smell, tastes, and sight. The child may exhibit speech/language difficulties, challenges in coordination or learning, clumsiness, delays in motor skills, and poor muscle tone.

Visual motor skills, poor socialization skills, behavioral issues, problems sequencing, or difficulty with self-care and play skills are other outcomes. With SPD, symptoms can be intense and frequent. SPD has many causes, including C-sections, vacuum extraction at birth, prematurity, exposure to toxins and pathogens *in utero*, as well as hereditary factors. A large number of children with sensory processing problems have had traumatic births, with breech presentation, and decreased oxygen to the brain.

What is Sensory Integration Therapy?

Therapeutic strategies to treat SPD favor approaches rich in vestibular, proprioceptive, visual-motor, and tactile inputs. Therapists carefully select appropriate activities to stimulate motor planning and neurological development in compromised areas.

SI therapy uses equipment designed to develop the neurological skills necessary to perform everyday functions. For example, swinging in a special glider filled with colored plastic balls gives tactile and vestibular input. Standing on a platform swing enhances balance while promoting bilateral integration and motor planning. A vertical tire swing with two handles encourages hand-eye coordination along with bilateral integration of the brain. Therapists carefully choose, monitor, and direct these activities to provide the child with an appropriate level and type of stimulation.

CST and SI: A Great Team

Therapists see profound changes in the children receiving combined CST and SI therapy. CST can be powerful paired with SI therapy because CST works directly on the nervous system to improve neurological functioning, processing and integration of sensory information. SI therapy often allows a child to better tolerate the gentle, steady touch of CST and to facilitate and further the changes that result from treatment.

CST therapists often use listening therapy with special music transmitted through headphones during the CST treatment session to modulate alert states and regulate reactivity to sensory input. Another method is replacing a standard treatment table with a net swing, allowing the child to swing while the therapist uses her hands to give vestibular input. In some cases, the therapist may choose to alternate sensory integration exercises with short sessions of CST to allow the child to relax, process and accept the treatment.

To learn more about combined CST and SI treatment contact The Upledger Clinic (see cover article). Several books on how CST changes lives are available on their website. For information on sensory integration, go to the DDR website at www.devdelay.org for links to many great sites.

Rebecca Flowers, OTR/L, BCP, CST-D, is certified in CranioSacral and Occupational Therapy, and in the Sensory Integration and Praxis Test (SIPT). She is a certified instructor in CranioSacral Therapy and Pediatrics at The Upledger Institute, Inc.