

# A FAMILY GUIDE TO COMMON TERMS ASSOCIATED WITH SENSORY INTEGRATION

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**ADAPTIVE RESPONSE:** An appropriate action in which the individual responds successfully to some environment demand. Adaptive responses require good sensory integration, and they also further the sensory integrative process.

**BODY IMAGE:** A person's perception of his own body. It consists of sensory images or "maps" of the body stored in the brain. May also be called body scheme or body percept.

**BRAIN STEM:** The lowest and innermost portion of the brain. The brain stem contains centers that regulate internal organic functions, arousal of the nervous system as a whole, and elementary sensory-motor processing.

**CONCENTRATION:** The simultaneous contraction of all the muscles around a joint to stabilize it.

**DYSPRAXIA:** Poor praxis or motor planning. A less severe, but more common dysfunction than apraxia (the lack of praxis), it is often related to poor somatosensory processing.

**EXTENSION:** The action of straightening the neck, back, arms, or legs.

**FLEXION:** The act of bending or pulling in a part of the body.

**GRAVITATIONAL INSECURITY:** An unusual degree of anxiety or fear in response to movement or change in head position; related to poor processing of vestibular and proprioception information.

**HYPERSENSITIVITY TO MOVEMENT:** Excessive sensations of disorientation, loss of balance, nausea, or headache in response to linear and or rotary movement. Response may be delayed up to several hours after receiving the input.

**KINESTHESIA:** Perception of the movement of individual body parts; dependent on proprioception.

**LATERALIZATION:** The tendency for certain processes to be handled more efficiently on one side of the brain than on the other. In most people, the right hemisphere becomes more efficient in processing spatial information, while the left hemisphere specialized in verbal and logical processes.

**LEARNING DISORDER:** A difficulty in learning to read, write, compute, or do school work that cannot be attributed to impaired sight or hearing, or to mental retardation.

**MODULATION:** The brain's regulation of its own activity.

**NYSTAGMUS:** A series of automatic, back-and-forth eye movements.

**PHYSICAL THERAPY:** A health profession concerned with improving a person's physical ability.

**PRAXIS (Motor Planning):** The ability of the brain to conceive of, organize, and carry out a sequence of unfamiliar actions.

**PRONE:** The horizontal body position with the face and stomach downward.

**PROPRIOCEPTION:** Refers to perception of sensation from the muscles and joints. It tells the brain when and how muscles are contracting or stretching, and when and how the joints are bending, extending or being pulled or compressed. This information enables the brain to know where each part of the body is and how it is moving.

**SENSORY INPUT:** The streams of neural impulses flowing from the sense receptors in the body to the spinal cord and brain.

**SENSORY INTEGRATION:** The organization of sensory input for use. The use may be a perception of the body or the world, or an adaptive response, or a learning process, or the development of some neural function.

**SENSORY INTEGRATION AND PRAXIS TEST (SIPT):** A series of test, published in 1989, designed to assess the status of sensory integration and praxis in children ages 4 through 8 years old.

**SENSORY INTEGRATIVE DYSFUNCTION:** An irregularity or disorder in brain function that makes it difficult to integrate sensory input effectively. Sensory integrative dysfunction may be present in motor, learning, social/emotional, speech/language or attention disorders.

**SOMATOSENSORY:** Body sensations that are based on both tactile and proprioceptive information.

**SOUTHERN CALIFORNIA SENSORY INTEGRATION TESTS (SCSIT):** A series of tests, published in 1972, designed to assess the status of sensory integration or its dysfunction. These tests were later revised, updated and republished as the Sensory Integration and Praxis Test.

**SPECIALIZATION:** In general, the process by which one part of the brain becomes more efficient at particular functions. Most specialized functions are lateralized, that is, one side of the brain is more proficient in the function than the other side.

**SUPINE:** The horizontal body position with the face and stomach upward.

**TACTILE:** Pertaining to sense of touch on the skin.

**TACTILE DEFENSIVENESS:** A sensory integrative dysfunction in which tactile sensations create negative emotional reactions. It is associated with distractibility, restlessness, and behavior problems.

**VESTIBULAR SYSTEM:** The sensory system that responds to the position of the head in relation to gravity and accelerated or decelerated movement; it integrates neck, eye, and body adjustments to movement.