

## Occupational Therapy Using a Sensory Integration–Based Approach With Adult Populations

Occupational performance difficulties due to sensory modulation challenges or poor integration of sensation can result from difficulties in how the nervous system receives, organizes, and uses sensory information from the body and the physical environment for self-regulation, motor planning, and skill development. These problems impact self-concept, emotional regulation, attention, problem solving, behavior control, skill performance, and the capacity to develop and maintain interpersonal relationships. In adults, they may negatively impact the ability to parent, work, or engage in home management, social, and leisure activities.



### Occupational Performance Indicators of Sensory Integration and Processing Problems in Adults (May-Benson, 2009)

Sensory Systems	Performance Skills
<p><b>Somatosensory (Tactile &amp; Proprioceptive)</b></p> <ul style="list-style-type: none"> <li>• Sensitive to texture and fit resulting in avoidance of some types of clothing (e.g., ties, turtlenecks, pantyhose).</li> <li>• Dislikes crowds or jostling in public places (e.g., standing in lines or shopping).</li> <li>• Becomes irritated with light or unexpected touch. May have difficulty with intimate touch.</li> <li>• Limited engagement in food and meal preparation and/or variety in diet.</li> <li>• May not discriminate when clothes are askew or food is on their face.</li> </ul> <p><b>Vestibular</b></p> <ul style="list-style-type: none"> <li>• Difficulties with balance, dislike of walking on uneven surfaces.</li> <li>• Dislikes or disoriented in elevators or on escalators.</li> <li>• Becomes nauseous when riding in the car. Needs to ride in the front seat or be the driver.</li> <li>• Fearful of leaving the house or of flying.</li> </ul> <p><b>Auditory</b></p> <ul style="list-style-type: none"> <li>• Sensitive to loud sounds.</li> <li>• Irritated by sounds not usually bothersome to others (e.g., pencils or pens scratching, lights buzzing, others eating, candy wrappers rustling).</li> </ul>	<p><b>Motor Performance</b></p> <ul style="list-style-type: none"> <li>• Difficulty driving, parking, shifting gears, or entering a freeway with an automobile.</li> <li>• Difficulty managing common home and office equipment.</li> <li>• Clumsy or awkward with motor activities (e.g., exercise, leisure, self-care tasks).</li> <li>• Difficulty organizing and planning materials and environment, possibly impacting work performance and health and safety at home.</li> <li>• Difficulty following directions for community navigation.</li> </ul> <p><b>Social Performance</b></p> <ul style="list-style-type: none"> <li>• Difficulty discriminating visual and auditory cues, impacting social interactions and role performance.</li> <li>• Difficulty with body awareness, affecting body boundaries and body image.</li> <li>• Difficulty discriminating sounds and following verbal directions.</li> <li>• Difficulty managing self-care and hygiene.</li> </ul> <p><b>Emotion Regulation</b></p> <ul style="list-style-type: none"> <li>• Difficulty discriminating visual and auditory cues, decreasing the ability to understand the emotional expressions of others, resulting in frustration, anxiety, and anger management issues.</li> <li>• Difficulty developing adaptive sensory-based physical supports (i.e., exercise, environmental adaptations) for emotional regulation.</li> </ul>

### What is the Role of Occupational Therapy With Adults With Sensory Processing Issues?

Occupational performance concerns due to poor integration and processing of sensation may occur in isolation, contribute to, or be comorbid with other conditions such as anxiety and panic disorders, depression, posttraumatic stress disorder, or schizophrenia. Those with learning disabilities, attention deficit disorder, developmental disabilities, or autism spectrum disorders may also have these difficulties.

Occupational therapists have unique training and skills in neuroscience, anatomy, and activity/environmental analysis to identify and treat occupational performance issues resulting from sensory modulation, sensory integration, motor, and psychosocial deficits in adults experiencing difficulties with sensory functions. They work with caregivers and medical, educational, and mental health professionals to increase awareness of the signs and symptoms of sensory-related problems and types of interventions used with adults.

Occupational therapy services are offered through consultation, individual therapy sessions, and/or group therapy in settings such as private, hospital, or community-based outpatient clinics; residential and day programs; acute and long-term-care hospitals; state hospitals; forensic facilities; skilled nursing facilities; rehabilitation centers; and military-based programs, such as Veterans Administration hospitals and clinics.

Occupational therapy services provided for adults experiencing problems processing and integrating sensations often use the principles of Ayres Sensory Integration®; however, specific approaches vary greatly depending on the person's needs and may include the following (Sensory Integration Global Network, n.d.):

- **Remedial Intervention** involving the skilled use of sensory and motor treatment activities and equipment, including engagement in activities that provide increased tactile, proprioceptive, and movement opportunities, such as suspended equipment (e.g., various swings); intensified physical activities, engagement in mediated tactile experiences (e.g., cooking, massagers); and activities that promote motor planning, organization of time and space, bilateral integration, and postural-ocular skills.
- **Accommodations and Adaptations** such as wearing ear plugs or noise cancelling headphones, or using a loofa sponge when showering, to manage hyper sensitivities and improve attention, self-regulation, or organizational difficulties to increase effectiveness in performing school, work, household management, or parenting tasks.
- **Sensory Diet Programs** involving a daily routine/plan with a menu of individualized, supportive sensory strategies (e.g., rocking chair, quiet space, aromatherapy, weighted blanket), identified physical activities (e.g., yoga, swimming) and materials (e.g., sensory kits containing music, stress balls, items for distraction). These are used throughout the day, as needed to help manage sensory modulation problems (e.g., touch, movement, visual or auditory sensitivity) and related emotions and behaviors, such as anxiety or self-injury, to help change sensory processing patterns, minimize crisis escalation, or promote calming for overall health and wellness (Champagne, 2010).
- **Environmental Modifications** and adaptations such as lighting, use of white noise machines, wall murals, and other types of furnishings and equipment to increase or decrease the sensory stimulation a space provides. In some settings, sensory rooms, sensory stations, or sensory carts may be used to achieve these goals.
- **Education** of individuals, family members, caregivers, administrators, and policymakers about the influence of sensory functions on occupational performance and how to minimize their negative impact on function; proactively help prevent and deescalate maladaptive behaviors; and, in some settings, decrease the need for seclusion or restraint.

## Conclusion

Occupational therapy plays a vital role in identifying and treating sensory integration problems in adults and supporting their ability to fully participate in meaningful life roles, routines, and important daily activities. Administrators and organizations benefit from working with occupational therapy practitioners to enrich the services offered to adults.

## References

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Occupational therapy enables people of all ages live life to its fullest by helping them to promote health, make lifestyle or environmental changes, and prevent—or live better with—injury, illness, or disability. By looking at the whole picture—a client's psychological, physical, emotional, and social make-up—occupational therapy assists people to achieve their goals, function at the highest possible level, maintain or rebuild their independence, and participate in the everyday activities of life.

