

**EFFECTIVE DATE:** 03|01|2019  
**POLICY LAST UPDATED:** 12|18|2018

## OVERVIEW

Sensory integration therapy (SIT) has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, particularly autism spectrum disorder. SIT may be offered by occupational and physical therapists who are certified in SIT. Auditory integration therapy (AIT) uses gradual exposure to certain types of sounds to improve communication in a variety of developmental disorders, particularly autism.

## MEDICAL CRITERIA

Not applicable.

## PRIOR AUTHORIZATION

Not applicable.

## POLICY STATEMENT

### BlueCHiP for Medicare

Sensory integration therapy and auditory integration therapy is considered medically necessary as a treatment for acquired sensory problems resulting from head trauma, illness, or acute neurologic events including cerebrovascular accidents.

### Commercial Products

Sensory integration therapy and auditory integration therapy, as a treatment for children and adults with autism, mental retardation, or learning disabilities is considered not medically necessary as the evidence is insufficient to determine the effects of the technology on health outcomes.

## COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable medical and not medically necessary benefits/coverage.

## BACKGROUND

The goal of SIT is to improve the way the brain processes and adapts to sensory information, as opposed to teaching specific skills. Therapy usually involves activities that provide vestibular, proprioceptive, and tactile stimuli, which are selected to match specific sensory processing deficits of the child. For example, swings are commonly used to incorporate vestibular input, while trapeze bars and large foam pillows or mats may be used to stimulate somatosensory pathways of proprioception and deep touch. Tactile reception may be addressed through a variety of activities and surface textures involving light touch.

Treatment sessions are usually delivered in a one-on-one setting by occupational therapists with special training from university curricula, clinical practice, and mentorship in the theory, techniques, and assessment tools unique to sensory integration theory. The sessions are often provided as part of a comprehensive occupational therapy or cognitive rehabilitation therapy and may last for more than one year.

The most direct evidence related to outcomes from SIT comes from randomized trials and systematic reviews of these trials. Although certain studies demonstrated some improvements on subsets of the outcomes measured, the studies were limited by small sample sizes, heterogeneous patient populations, and variable

outcome measures. As a result, the evidence is not sufficiently robust to draw conclusions about the effects of, and the most appropriate patient populations for, SIT.

Auditory integration therapy (also known as AI training, auditory enhancement training, audio-psychophonology) is another method that relies on gradual exposure to sound to which individuals are sensitive, based on having individuals listen to music that has been modified to remove frequencies to which the individual is hypersensitive. Although several methods have been developed, the most widely-described is the Berard method, which involves 2 half-hour sessions per day separated by at least 3 hours, over 10 consecutive days, during which patients listen to recordings. AI training has been proposed for individuals with a range of developmental and behavioral disorders, including learning disabilities, autism spectrum disorders, pervasive developmental disorder, attention deficit and hyperactivity disorder. Other methods include the Tomatis method, which involves listening to electronically-modified music and speech, and Samonas Sound Therapy, which involves listening to filtered music, voices, and nature sounds.

The largest body of evidence related to the use of AI therapy is in the treatment of autism. A 2011 Cochrane review and several earlier systematic reviews generally found that studies of AI therapy failed to demonstrate meaningful clinical improvements. Therefore, auditory integration therapy is considered not medically necessary as there is no proven efficacy.

### **BlueCHiP for Medicare**

Sensory integration treatments are often associated with pediatric populations. For non-pediatric patients, these services may be medically necessary for acquired sensory problems resulting from head trauma, illness, or acute neurologic events including cerebrovascular accidents. They are not appropriate for patients with progressive neurological conditions without potential for functional adaptation. Therapy is not considered a cure for sensory integrative impairments, but is used to facilitate the development of the nervous system's ability to process sensory input differently. Utilization of this service should be infrequent.

### **CODING**

The following CPT code is considered covered for BlueCHiP for Medicare and not medically necessary for Commercial Products:

**97533** Sensory integrative techniques to enhance sensory processing and promote adaptive responses to environmental demands, direct (one-on-one) patient contact by the provider, each 15 minutes.

### **RELATED POLICIES**

None

### **PUBLISHED**

Provider Update, February 2019

Provider Update, June 2017

Provider Update, October 2016

Provider Update, April 2015

Provider Update, December 2013

### **REFERENCES**

1. Case-Smith J, Arbesman M. Evidence-based review of interventions for autism used in or of relevance to occupational therapy. *Am J Occup Ther* 2008; 62(4):416-29.
2. Baranek GT. Efficacy of sensory and motor interventions for children with autism. *J Autism Dev Disord* 2002; 32(5):397-422.
3. May-Benson TA, Koomar JA. Systematic review of the research evidence examining the effectiveness of interventions using a sensory integrative approach for children. *Am J Occup Ther* 2010; 64(3):403-14.

4. Sinha Y, Silove N, Hayen A et al. Auditory integration training and other sound therapies for autism spectrum disorders (ASD). *Cochrane Database Syst Rev* 2011; (12):CD003681.
5. Mailloux Z, May-Benson TA, Summers CA et al. Goal attainment scaling as a measure of meaningful outcomes for children with sensory integration disorders. *Am J Occup Ther* 2007; 61(2):254-9.
6. Parham LD, Cohn ES, Spitzer S et al. Fidelity in sensory integration intervention research. *Am J Occup Ther* 2007; 61(2):216-27.
7. Miller LJ, Coll JR, Schoen SA. A randomized controlled pilot study of the effectiveness of occupational therapy for children with sensory modulation disorder. *Am J Occup Ther* 2007; 61(2):228-38.
8. Pfeiffer BA, Koenig K, Kinnealey M et al. Effectiveness of sensory integration interventions in children with autism spectrum disorders: a pilot study. *Am J Occup Ther* 2011; 65(1):76-85.
9. Uyanik M, Bumin G, Kayihan H. Comparison of different therapy approaches in children with Down syndrome. *Pediatr Int* 2003; 45(1):68-73.
10. Zimmer M, Desch L. Sensory integration therapies for children with developmental and behavioral disorders. *Pediatrics* 2012; 129(6):1186-9.
11. Kratz SV. Sensory integration intervention: historical concepts, treatment strategies and clinical experiences in three patients with succinic semialdehyde dehydrogenase (SSADH) deficiency. *J Inherit Metab Dis* 2009; 32(3):353-60.
12. Myers SM, Johnson CP. Management of children with autism spectrum disorders. *Pediatrics* 2007; 120(5):1162-82.
13. Schaaf RC, Burke JP, Cohn E, et al. State of measurement in occupational therapy using sensory integration. *Am J Occup Ther*. Sep-Oct 2014;68(5):e149-153. PMID 25184475

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