

EFFECTIVE DATE: 08/04/2009

POLICY LAST UPDATED: 01/27/2015

OVERVIEW

Sensory integration (SI) therapy is used as a treatment of developmental disorders in patients with established dysfunction of sensory processing, e.g., children with autism, attention deficit hyperactivity disorder (ADHD), brain injuries, fetal alcohol syndrome, and neurotransmitter disease. Sensory integration therapy may be offered by occupational and physical therapists who are certified in sensory integration therapy.

Auditory integration therapy uses gradual exposure to certain types of sounds to improve communication in a variety of developmental disorders, particularly autism.

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

BlueCHiP for Medicare and Commercial

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 there is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

MEDICAL CRITERIA

None

BACKGROUND

The goal of sensory integration (SI) therapy 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. A related method, auditory integration therapy, involves 10 hours of listening to electronically modified music over the course of 10 days.

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 SI theory. The sessions are often provided as part of a comprehensive occupational therapy or cognitive rehabilitation therapy and may last for more than 1 year.

The American Academy of Pediatrics (AAP) stated in 2007 guidance that “the efficacy of SI therapy has not been demonstrated objectively.” (12) Overall, the evidence remains insufficient to evaluate the effect of this treatment on health outcomes. A 2012 policy statement by the AAP on SI therapies for children with developmental and behavioral disorders states that “occupational therapy with the use of sensory-based therapies may be acceptable as one of the components of a comprehensive treatment plan. However, parents should be informed that the amount of research regarding the effectiveness of sensory integration therapy is limited and inconclusive.” As noted by Kratz, “there exists very little research that supports the effectiveness

of any intervention for children with chronic or mild disabilities across all disciplines.” (11) Due to the individual nature of SI therapy and the large variation in individual therapists and patients, large multicenter randomized controlled trials are needed to evaluate the efficacy of this intervention. Therefore, sensory Integration therapy is considered not medically necessary as there is no proven efficacy.

Auditory integration therapy (also known as AI training, auditory enhancement training, audio-psycho-phonology) 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.¹

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.

COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate evidence of coverage or subscriber agreement for applicable Not Medically Necessary Services.

CODING

BlueChip for Medicare and Commercial:

The following CPT code is considered not medically necessary.

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, Apr 2015
Provider Update, December 2013
Provider Update, October 2012
Provider Update, September 2011
Provider Update, December 2010
Provider Update, September 2009

REFERENCES

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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.



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