

Blue Cross Blue Shield of Massachusetts is an Independent Licenses of the Blue Cross and Blue Shield Association

# Medical Policy

# **Sensory Integration Therapy and Auditory Integration Therapy**

#### **Table of Contents**

Policy: Commercial

Policy: Medicare

Authorization Information

Coding Information

Description

Policy History

Information Pertaining to All Policies

References

Policy Number: 659

BCBSA Reference Number: 8.03.13

#### **Related Policies**

• Cognitive Rehabilitation, #660

## **Policy**

# Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members

Sensory integration therapy and auditory integration therapy are considered **INVESTIGATIONAL**.

#### **Prior Authorization Information**

Pre-service approval is required for all inpatient services for all products.

See below for situations where prior authorization may be required or may not be required for outpatient services.

Yes indicates that prior authorization is required.

No indicates that prior authorization is not required.

N/A indicates that this service is primarily performed in an inpatient setting.

#### Outpatient

Commercial Managed Care (HMO and POS)	This is not a covered service.
Commercial PPO and Indemnity	This is not a covered service.
Medicare HMO Blue <sup>SM</sup>	This is not a covered service.
Medicare PPO Blue <sup>SM</sup>	This is not a covered service.

#### **CPT Codes / HCPCS Codes / ICD-9 Codes**

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following CPT code is considered investigational for <u>Commercial Members: Managed Care</u> (<u>HMO and POS</u>), <u>PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:</u>

#### **CPT Codes**

CPT codes:	Code Description
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

### **Description**

The goal of 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.

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. Two organizations currently offer certification for SI therapy; Sensory Integration International, a nonprofit branch of the Ayres Clinic in Torrance, California, and Western Psychological Services, a private organization that has a collaborative arrangement with University of Southern California (USC), Los Angeles, to offer sensory integration training through USC's Department of Occupational Science and Therapy. The sessions are often provided as part of a comprehensive occupational therapy or cognitive rehabilitation therapy and may last for more than 1 year.

Al therapy (also known as Al 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. Al 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

#### Summary

Sensory integration (SI) therapy has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, eg, children with autism, attention-deficit/hyperactivity disorder, brain injuries, fetal alcohol syndrome, and neurotransmitter disease. SI therapy may be offered by occupational and physical therapists who are certified in SI therapy. Auditory integration therapy uses gradual exposure to certain types of sounds to improve communication in a variety of developmental disorders, particularly autism.

Due to the individual nature of SI therapy and the large variation in individual therapists and patients, large multicenter randomized controlled trials (RCTs) are needed to evaluate the efficacy of this intervention. The most direct evidence related to outcomes from SI therapy comes from several small randomized trials. Although some of the studies demonstrated some improvements on subsets of the outcomes measured, the studies are limited by small sizes, heterogeneous patient populations, and variable outcome measures. As a result, the evidence is insufficient to draw conclusions about the effects

of and the most appropriate patient populations for SI therapy, and the use of SI therapy is considered investigational.

For auditory integration (AI) therapy, the largest body of literature relates to its use in autism. Several systematic reviews of AI therapy in the treatment of autism found limited evidence to support its use. No comparative studies were identified that evaluate the use of AI therapy for other conditions. Therefore, the use AI therapy is considered investigational.

# **Policy History**

Date	Action
4/2016	New references added from BCBSA National medical policy.
4/2015	BCBSA National medical policy review.
.,_0.0	Policy statement expanded to include investigational statement for auditory integration
	therapy. Title changed to reflect inclusion of auditory integration therapy. Effective
	4/1/2015
11/2011-	Medical policy ICD 10 remediation: Formatting, editing and coding updates.
4/2012	No changes to policy statements.
1/2012	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
	No changes to policy statements.
5/2011	Reviewed - Medical Policy Group - Pediatrics and Endocrinology.
	No changes to policy statements.
2/2011	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology.
	No changes to policy statements.
1/2011	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
	No changes to policy statements.
5/2010	Reviewed - Medical Policy Group - Pediatrics and Endocrinology.
	No changes to policy statements.
2/2010	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology.
	No changes to policy statements.
1/2010	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
	No changes to policy statements.
1/2010	BCBSA National medical policy review.
	No changes to policy statements.
5/2009	Reviewed - Medical Policy Group - Pediatrics and Endocrinology.
	No changes to policy statements.
2/2009	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology.
	No changes to policy statements.
1/2009	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
<b>=</b> /0000	No changes to policy statements.
5/2008	Reviewed - Medical Policy Group - Pediatrics and Endocrinology.
<b>-</b> /2222	No changes to policy statements.
5/2008	BCBSA National medical policy review.
0/0000	No changes to policy statements.
2/2008	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology.
4/0000	No changes to policy statements.
1/2008	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
C/2007	No changes to policy statements.
6/2007	BCBSA National medical policy review.
5/2007	No changes to policy statements.
3/2007	Reviewed - Medical Policy Group - Pediatrics and Endocrinology.
4/2007	No changes to policy statements.  BCBSA National medical policy review.
4/2007	No changes to policy statements.
2/2007	Reviewed - Medical Policy Group - Psychiatry and Ophthalmology.
2/2001	Neviewed - Medical Folicy Group - Esychiatry and Ophthalmology.

	No changes to policy statements.
1/2007	Reviewed - Medical Policy Group - Neurology and Neurosurgery.
	No changes to policy statements.

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

Medical Policy Terms of Use Managed Care Guidelines

**Indemnity/PPO Guidelines** 

**Clinical Exception Process** 

Medical Technology Assessment Guidelines

#### References

- 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. PMID 22161380
- 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
- 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. Mar-Apr 2007;61(2):254-259. PMID 17436848
- Parham LD, Cohn ES, Spitzer S, et al. Fidelity in sensory integration intervention research. Am J Occup Ther. Mar-Apr 2007;61(2):216-227. PMID 17436844
- Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Sensory integration therapy. TEC Assessment. 1999; Volume 14, Tab 22.
- Case-Smith J, Weaver LL, Fristad MA. A systematic review of sensory processing interventions for children with autism spectrum disorders. Autism. Feb 2015;19(2):133-148. PMID 24477447
- Brondino N, Fusar-Poli L, Rocchetti M, et al. Complementary and Alternative Therapies for Autism Spectrum Disorder. Evid Based Complement Alternat Med. 2015;2015:258589. PMID 26064157
- Watling R, Hauer S. Effectiveness of Ayres Sensory Integration(R) and Sensory-Based Interventions for People With Autism Spectrum Disorder: A Systematic Review. Am J Occup Ther. Sep-Oct 2015;69(5):6905180030p6905180031-6905180030p6905180012. PMID 26356655
- Case-Smith J, Arbesman M. Evidence-based review of interventions for autism used in or of relevance to occupational therapy. Am J Occup Ther. Jul-Aug 2008;62(4):416-429. PMID 18712004
- 10. 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. May-Jun 2010;64(3):403-414. PMID 20608272
- 11. Schaaf RC, Benevides T, Mailloux Z, et al. An intervention for sensory difficulties in children with autism: a randomized trial. J Autism Dev Disord. Jul 2014;44(7):1493-1506. PMID 24214165
- 12. 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. Jan-Feb 2011;65(1):76-85. PMID 21309374
- 13. 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. Mar-Apr 2007;61(2):228-238. PMID 17436845
- 14. Uyanik M, Bumin G, Kayihan H. Comparison of different therapy approaches in children with Down syndrome. Pediatr Int. Feb 2003;45(1):68-73. PMID 12654073
- 15. Parr J. Autism. Clin Evid (Online). 2010;2010. PMID 21729335
- 16. Rossignol DA. Novel and emerging treatments for autism spectrum disorders: a systematic review. Ann Clin Psychiatry. Oct-Dec 2009;21(4):213-236. PMID 19917212
- 17. Zimmer M, Desch L. Sensory integration therapies for children with developmental and behavioral disorders. Pediatrics. Jun 2012;129(6):1186-1189. PMID 22641765

  18. Roley SS, Bissell J, Clark GF. Providing occupational therapy using sensory integration theory and
- methods in school-based practice. Am J Occup Ther. Nov-Dec 2009;63(6):823-842. PMID 20092120
- 19. Watling R, Koenig KP, Davies PL, et al. Occupational therapy practice guidelines for children and adolescents with challenges in sensory processing and sensory integration. Bethesda, MD: American Occupational Therapy Association Press; 2011. Guideline summary available online at: http://www.guidelines.gov/content.aspx?id=34041. Last accessed March 2016.
- 20. American Speech-Language-Hearing Association. Auditory integration training [Technical Report]. 2004; http://www.asha.org/policy/TR2004-00260.htm#sec1.1.5. Accessed October 14, 2014.

21.	Committee on Children With Disabilities. Auditory integration training and facilitated communication for autism. Pediatrics. August 1, 1998 1998;102(2):431-433.
	autism. Pediatrics. August 1, 1998 1998;102(2):431-433.