

Corporate Medical Policy

Sensory Integration Therapy and Auditory Integration Therapy

File Name: sensory_integration_therapy_and_auditory_integration_therapy
Origination: 1/2001
Last Review: 6/2023

Description of Procedure or Service

Sensory integration therapy (SIT) has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, particularly autism spectrum disorders. 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.

The goal of sensory integration therapy is to improve how 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.

Auditory integration therapy (AIT) (also known as 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. AIT 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.

*****Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.**

Policy

Sensory Integration Therapy and Auditory Integration Therapy are considered investigational. BCBSNC does not provide coverage for investigational services or procedures.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

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When Sensory Integration Therapy and Auditory Integration Therapy is covered

Not applicable.

When Sensory Integration Therapy and Auditory Integration Therapy is not covered

Sensory Integration Therapy and Auditory Integration Therapy are considered investigational.

Policy Guidelines

For individuals who have developmental disorders who receive sensory integration therapy, the evidence includes multiple randomized controlled trials (RCTs) and systematic reviews of these trials. Relevant outcomes are functional outcomes and quality of life. Due to the individualized approach to sensory integration therapy and the large variations in patients' disorders, large multicenter RCTs are needed to evaluate the efficacy of this intervention. The most direct evidence on sensory integration therapy outcomes derives from several small randomized trials. Although some of these trials demonstrated improvements for subsets of outcomes measured, they had small sample sizes, heterogeneous patient populations, and variable outcome measures. A RCT of 138 children ages 4 to 11 years published in 2022 found that sensory integration therapy for children with autism and sensory processing difficulties did not demonstrate clinical benefit above standard care. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have developmental disorders who receive auditory integration therapy, the evidence includes multiple RCTs and systematic reviews of these trials. Relevant outcomes are functional outcomes and quality of life. For auditory integration therapy, the largest body of literature relates to its use in autism spectrum disorder. Several systematic reviews of AIT in the treatment of autism have found limited evidence to support its use. No comparative studies identified evaluated use of auditory integration therapy for other conditions. The evidence is insufficient to determine the effects of the technology on health outcomes.

American Academy of Pediatrics

A policy statement by the American Academy of Pediatrics (2012) on SIT for children with developmental and behavioral disorders stated 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." The Academy indicated that these limitations should be discussed with parents, along with instruction on how to evaluate the effectiveness of a trial period of SIT.

American Occupational Therapy Association

The AOTA (2011) published evidence-based occupational therapy practice guidelines for children and adolescents with challenges in sensory processing and sensory integration. The AOTA gave a level C recommendation for SIT for individual functional goals for children, for parent-centered goals, and for participation in active play in children with sensory processing disorder, and to address play skills and engagement in children with autism. A level C recommendation is based on "...weak evidence that the intervention can improve outcomes, and the balance of the benefits and harms may result either in a recommendation that occupational therapy practitioners routinely provide the intervention ... or in no recommendation because the balance of the benefits and harm is too close to justify a general recommendation." Specific performance skills evaluated were motor and praxis skills, sensory-perceptual skills, emotional regulation, and communication and social skills. There was insufficient

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evidence to recommend SIT for academic and psychoeducational performance (eg, math, reading, written performance).

The AOTA (2015) guidelines stated: “American Occupational Therapy Association (AOTA) recognizes sensory integration as one of several theories and methods used by occupational therapists and occupational therapy assistants working with children in public and private schools...to “enhanc[e] a person’s ability to participate in life through engagement in everyday activities....When children demonstrate sensory, motor, or praxis deficits that interfere with their ability to access the general education curriculum, occupational therapy using an sensory integration approach is appropriate.”

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: 97533

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA TEC Evaluation, February, 2000; Tab 22

BCBSA Medical Policy Reference Manual, 4/30/00; 8.03.13

BCBSA Medical Policy Reference Manual, 10/15/00; 8.03.13

Specialty Matched Consultant Advisory Panel - 9/2002

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 12/18/2002

Specialty Matched Consultant Advisory Panel - 8/2004

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 12/27/2005

Specialty Matched Consultant Advisory Panel - 8/2006

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 12/13/2007

Specialty Matched Consultant Advisory Panel - 8/2008

Myers SM, Johnson CP; American Academy of Pediatrics Council on Children with Disabilities. Management of children with autism spectrum disorders. *Pediatrics*. 2007 Nov;120(5):1162-82. Retrieved 8/12/10 from <http://pediatrics.aappublications.org/cgi/reprint/peds.2007-2362v1>

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 10/06/09

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 10/4/11

Specialty Matched Consultant Advisory Panel – 7/2012

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 10/11/12

Specialty Matched Consultant Advisory Panel – 7/2013

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 10/10/13

Specialty Matched Consultant Advisory Panel – 7/2014

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BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 11/13/14

Specialty Matched Consultant Advisory Panel – 7/2015

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 3/10/2016

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 3/9/2017

Zimmer M, Desch L. Sensory integration therapies for children with developmental and behavioral disorders. *Pediatrics*. Jun 2012;129(6):1186-1189. PMID 22641765

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.

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 3/14/2019

Occupational Therapy for Children and Youth Using Sensory Integration Theory and Methods in School-Based Practice. *Am J Occup Ther*. 2015 Nov;69 Suppl 3:6913410040p1-6913410040p20. PMID 26713950

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 3/12/2020

Specialty Matched Consultant Advisory Panel – 6/2020

BCBSA Medical Policy Reference Manual [Electronic Version]. 8.03.13, 3/11/2021

Specialty Matched Consultant Advisory Panel – 6/2021

Medical Director review 6/2021

Occupational Therapy for Children and Youth Using Sensory Integration Theory and Methods in School-Based Practice. *Am J Occup Ther*. Nov-Dec 2015; 69 Suppl 3: 6913410040p1-6913410040p20. PMID 26713950

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.

American Speech-Language-Hearing Association, Working Group in AIT. Auditory Integration Training [Technical Report:]. 2004; <https://www.asha.org/policy/ps2004-00218>

Specialty Matched Consultant Advisory Panel – 6/2022

Medical Director review 6/2022

Sinha Y, Silove N, Hayen A, et al. Auditory integration training and other sound therapies for autism spectrum disorders (ASD). *Cochrane Database Syst Rev*. Dec 07 2011; 2011(12): CD003681. PMID 22161380

Specialty Matched Consultant Advisory Panel – 6/2023

Medical Director review 6/2023

Policy Implementation/Update Information

1/01	Original policy issued.
11/02	Specialty Matched Consultant Advisory Panel review 9/2002. No changes.
8/26/04	Specialty Matched Consultant Advisory Panel review 8/4/2004. No changes to criteria. Updated Benefit Application and Billing/Coding sections for consistency. References added.
8/28/06	Specialty Matched Consultant Advisory Panel review 8/1/2006. Added "Sensory integration may be considered a part of cognitive rehabilitation therapy." to "Description of

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- Procedure or Service" section. No changes to policy statement. Rationale added to "Policy Guidelines" section. References added.
- 9/22/08 Specialty Matched Consultant Advisory Panel review 8/28/2008. No changes to policy statement. References added.(btw)
- 6/22/10 Policy Number(s) removed (amw)
- 10/26/10 Description section revised. Specialty Matched Consultant Advisory Panel review 9/30/10. Policy accepted as written. (adn)
- 8/16/11 Specialty Matched Consultant Advisory Panel review 7/27/11. No changes to policy. (adn)
- 8/7/12 Specialty Matched Consultant Advisory Panel review 7/18/12. Removed Related Policy entitled Cognitive Rehabilitation. No changes to policy. (sk)
- 12/11/12 Reference added. Medical Director review. No change to Policy Statement. (sk)
- 7/30/13 Specialty Matched Consultant Advisory Panel review 7/17/13. No changes to policy. (sk)
- 1/28/14 Reference added. No change to Policy statement. (sk)
- 8/12/14 Specialty Matched Consultant Advisory Panel review 7/29/14. No change to Policy statement. (sk)
- 3/10/15 Reference added. Policy statement expanded to include investigational statement for auditory integration therapy. Title changed to reflect inclusion of auditory integration therapy. (sk)
- 9/1/15 Specialty Matched Consultant Advisory Panel review 7/29/15. (sk)
- 8/30/16 Minor revisions to Description section and Policy Guidelines section. Specialty Matched Consultant Advisory Panel review 7/27/16. Policy statement unchanged. (an)
- 7/28/17 Minor changes to Description section. Policy Guidelines section updated. Specialty Matched Consultant Advisory Panel review 6/28/2017. No change to policy statement. (an)
- 7/27/18 Specialty Matched Consultant Advisory Panel review 6/27/2018. No change to policy statement. (an)
- 7/30/19 Updated Description section and Policy Guidelines. References added. Specialty Matched Consultant Advisory Panel review 7/10/2019. (eel)
- 7/28/20 Policy Guidelines section updated to include 2015 AOTA guidelines statement. References added. Specialty Matched Consultant Advisory Panel review 6/2020. No change to policy statement. (bb)
- 7/13/21 Description updated. Specialty Matched Consultant Advisory Panel review 6/2021. Medical Director review 6/2021. No change to policy statement. (bb)
- 7/12/22 Description updated. References added. Specialty Matched Consultant Advisory Panel review 6/2022. Medical Director review 6/2022. No change to policy statement. (tt)
- 6/30/23 Minor edits made to Description and Policy Guidelines. References added. Specialty Matched Consultant Advisory Panel review 6/2022. Medical Director review 6/2023. No change to policy statement. (tt)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.

