Effective November 1, 2023, refer to <u>CMS</u> <u>Manual 100-02, Chapter</u> <u>16-General Exclusions</u> <u>from Coverage</u> for services included in this policy.



Name of Blue Advantage Policy: Sensory Integration Therapy and Auditory Integration Therapy

Policy #: 333

Latest Review Date: March 2023

Category: Therapy

ARCHIVED EFFECTIVE 11/1/2023

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

- 1. Safe and effective;
- 2. Not experimental or investigational*;
- 3. Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is
 - Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;
 - Furnished in a setting appropriate to the patient's medical needs and condition;
 - Ordered and furnished by qualified personnel;
 - One that meets, but does not exceed, the patient's medical need; and
 - At least as beneficial as an existing and available medically appropriate alternative.

*Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare** for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).

POLICY:

Blue Advantage will treat sensory integration therapy (SIT) and auditory integration therapy as a non-covered benefit and as investigational.

For constraint-induced therapy, please refer to Blue Advantage medical policy #188-Constraint-Induced Movement or Language Therapy.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Sensory integration (SI) therapy has been proposed as a treatment of developmental disorders in patients with established dysfunction of sensory processing, particularly autism spectrum disorders. SI therapy may be offered by occupational and physical therapists who are certified in SI therapy. Auditory integration (AI) 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 (SIT) 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.

Auditory integration (AIT) therapy (also known as auditory integration training, auditory enhancement training, and audio-psycho-phonology) involves having individuals listen to music modified to remove frequencies to which they are hypersensitive, with the goal of gradually increasing exposure to sensitive frequencies. Although several methods have been developed, the most widely-described is the Berard method, which involves two half-hour sessions per day separated by at least three hours, over ten consecutive days, during which patients listen to recordings. Auditory integration 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.

KEY POINTS:

The most recent literature update was performed through January 23, 2023.

Summary of Evidence

For individuals who have developmental disorders who receive SIT, the evidence includes randomized controlled trials, systematic reviews of these trials, and case series. Relevant outcomes are functional outcomes and quality of life. Due to the individual approach to SI therapy and the large variation in patient's disorders, 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 randomized trials. Although some studies demonstrated some improvements on subsets of the outcomes measured, the studies are limited by small 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 that the technology results in an improvement in the net health outcomes.

For individuals who have developmental disorders who receive auditory integration therapy, the evidence includes systematic reviews of RCTs. Relevant outcomes are functional outcomes and quality of life. For auditory integration therapy, the largest body of literature relates to its use in ASD. Several systematic reviews of auditory integration therapy 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 that the technology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements American Academy of Pediatrics

A 2012 policy statement by the AAP on SIT 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." The AAP indicates that these limitations should be discussed with parents, along with instruction on how to evaluate the effectiveness of a trial period of SI therapy.

American Occupational Therapy Association

In 2015, the American Occupational Therapy Association (AOTA) guidelines stated: "AOTA recognizes SI as one of several theories and methods used by occupational therapists and occupational therapy assistants working with children in public and private ...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 SI approach is appropriate."

In 2011, the AOTA published evidence-based occupational therapy practice guidelines for children and adolescents with challenges in sensory processing and sensory integration. AOTA gave a level C recommendation for sensory integration therapy 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 harms 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 evidence to provide a recommendation on sensory integration for academic and psychoeducational performance (e.g., math, reading, written performance).

American Speech-Language-Hearing Association

In 2002, the American Speech-Language-Hearing Association Work Group on Auditory Integration Therapy concluded that auditory integration therapy has not met scientific standards for efficacy that would justify its practice by audiologists and speech-language pathologists.

U.S. Preventive Services Task Force Recommendations Not applicable.

KEY WORDS:

Sensory integration therapy (SIT), auditory integration therapy (AIT), facilitated communication (FC) therapy, Integrated Listening System Therapy, iLs

APPROVED BY GOVERNING BODIES:

Sensory integration therapy is a procedure and, as such, is not subject to regulation by the US Food and Drug Administration (FDA). There are no devices designed to provide auditory integration therapy that have clearance for marketing from FDA.

BENEFIT APPLICATION:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

CURRENT CODING:

CPT Codes:

97533

Sensory integrative technique to enhance sensory processing and promote adaptive responses to environmental demand, direct (one-on-one) patients contact by the provider, each 15 minutes

The code above may also be used for auditory integration therapy.

REFERENCES:

- 1. 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.
- 2. Case-Smith J, Weaver LL, Fristad MA. A systematic review of sensory processing interventions for children with autism spectrum disorders. Autism. Jan 29 2014.
- 3. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.
- 4. 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.
- 5. 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.
- 6. Parr J. Autism. Clin Evid (Online). 2010; 2010.
- 7. 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.
- 8. Porges SW, Bazhenova OV, Bal E, et al. Reducing auditory hypersensitivities in autistic spectrum disorder: preliminary findingsevaluating the listening project protocol. Front Pediatr. 2014; 2: 80.
- 9. Randell E, Wright M, Milosevic S, et al. Sensory integration therapy for children with autism and sensory processing difficulties: the SenITA RCT. Health Technol Assess. Jun 2022; 26(29): 1-140.
- 10. 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.
- 11. 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.
- 12. 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.
- 13. 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):6905180030p6905180031-6905180012.
- 14. 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: www.guidelines.gov/content.aspx?id=34041. Last accessed December 2013.
- 15. Weitlauf AS, Sathe N, McPheeters ML, et al. Interventions Targeting Sensory Challenges in Autism Spectrum Disorder: ASystematic Review. Pediatrics. Jun 2017; 139(6).
- 16. Zimmer M, Desch L. Sensory integration therapies for children with developmental and behavioral disorders. Pediatrics 2012; 129(6):1186-9.

POLICY HISTORY:

Adopted for Blue Advantage, December 2008

Available for comment December 1, 2008-January 14, 2009

Medical Policy Group, October 2010

Medical Policy Group, October 2011

Medical Policy Group, December 2014

Medical Policy Group, October 2015

Medical Policy Group, March 2016

Medical Policy Group, March 2017

Medical Policy Group, March 2018

Medical Policy Group, March 2019

Medical Policy Group, March 2020

Medical Policy Group, March 2021

Medical Policy Group, March 2022

Medical Policy Group, March 2023

Medical Policy Group, November 2023: Archived effective 11/1/2023.

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.