



FEP Medical Policy Manual

FEP 8.03.13 Sensory Integration Therapy and Auditory Integration Therapy

Annual Effective Policy Date: July 1, 2024

Original Policy Date: June 2012

Related Policies:

8.03.10 - Cognitive Rehabilitation

Sensory Integration Therapy and Auditory Integration Therapy

Description

Description

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

OBJECTIVE

The objective of this evidence review is to determine whether sensory integration therapy or auditory integration therapy improves the net health outcome for individuals with developmental disorders.

POLICY STATEMENT

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

POLICY GUIDELINES

None

BENEFIT APPLICATION

Experimental or investigational procedures, treatments, drugs, or devices are not covered (See General Exclusion Section of brochure).

Services related to education may be health plan contract exclusions.

FDA REGULATORY STATUS

Sensory integration therapy is a procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration. No devices designed to provide auditory integration therapy have been cleared for marketing by the FDA.

RATIONALE

Summary of Evidence

For individuals who have developmental disorders who receive sensory integration therapy, the evidence includes systematic reviews of randomized controlled trials (RCTs) and case series. 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 RCTs. 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 that the technology results in an improvement in the net health outcome.

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 autism spectrum disorder. 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.

SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Academy of Pediatrics

A 2012 policy statement by the American Academy of Pediatrics on sensory integration therapy 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."¹² The American Academy of Pediatrics indicated that these limitations should be discussed with parents, along with instructions on how to evaluate the effectiveness of a trial period of sensory integration therapy.

American Occupational Therapy Association

The 2015 American Occupational Therapy Association (AOTA) 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 a sensory integration approach is appropriate."¹³

In 2011, the American Occupational Therapy Association (AOTA) published evidence-based occupational therapy practice guidelines for children and adolescents with challenges in sensory processing and sensory integration.¹⁴ The 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 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 evidence to recommend sensory integration therapy for academic and psychoeducational performance (eg, 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.¹⁵

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

There is no national coverage determination. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers.

REFERENCES

1. 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
2. Schaaf RC, Burke JP, Cohn E, et al. State of measurement in occupational therapy using sensory integration. *Am J Occup Ther*. 2014; 68(5): e149-53. PMID 25184475
3. 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. PMID 17436848
4. Parham LD, Cohn ES, Spitzer S, et al. Fidelity in sensory integration intervention research. *Am J Occup Ther*. 2007; 61(2): 216-27. PMID 17436844
5. Weitlauf AS, Sathe N, McPheeters ML, et al. Interventions Targeting Sensory Challenges in Autism Spectrum Disorder: A Systematic Review. *Pediatrics*. Jun 2017; 139(6). PMID 28562287
6. 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): 133-48. PMID 24477447
7. 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. PMID 20608272
8. 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. PMID 35766242
9. Corbett BA, Shickman K, Ferrer E. Brief report: the effects of Tomatis sound therapy on language in children with autism. *J Autism Dev Disord*. Mar 2008; 38(3): 562-6. PMID 17610057
10. Mudford OC, Cross BA, Breen S, et al. Auditory integration training for children with autism: no behavioral benefits detected. *Am J Ment Retard*. Mar 2000; 105(2): 118-29. PMID 10755175
11. Porges SW, Bazhenova OV, Bal E, et al. Reducing auditory hypersensitivities in autistic spectrum disorder: preliminary findings evaluating the listening project protocol. *Front Pediatr*. 2014; 2: 80. PMID 25136545

12. Zimmer M, Desch L, Rosen LD, et al. Sensory integration therapies for children with developmental and behavioral disorders. *Pediatrics*. Jun 2012; 129(6): 1186-9. PMID 22641765
13. Occupational Therapy for Children and Youth Using Sensory Integration Theory and Methods in School-Based Practice. *Am J Occup Ther*. 2015; 69 Suppl 3: 6913410040p1-6913410040p20. PMID 26713950
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.
15. American Speech-Language-Hearing Association, Working Group in AIT. Auditory Integration Training [Technical Report:]. 2004; <https://www.asha.org/policy/ps2004-00218/>. Accessed February 26, 2024.

POLICY HISTORY - THIS POLICY WAS APPROVED BY THE FEP® PHARMACY AND MEDICAL POLICY COMMITTEE ACCORDING TO THE HISTORY BELOW:

Date	Action	Description
June 2012	New policy	Sensory integration therapy and auditory integration therapy is considered investigational.
December 2013	Replace policy	Policy updated with literature review, new references added, policy statement unchanged.
March 2015	Replace policy	Policy updated with literature review through September 23, 2014. References 1-2, 9-10, 14, and 20-21 added. Policy statement expanded to include investigational statement for auditory integration therapy. Title changed to reflect inclusion of auditory integration therapy.
June 2018	Replace policy	Policy updated with literature review through January 8, 2018; references 7-8 added. Policy statement unchanged.
June 2019	Replace policy	Policy updated with literature review through January 6, 2019; no references added. Policy statement unchanged.
June 2020	Replace policy	Policy updated with literature review through January 13, 2020; reference added; Policy statement unchanged.
June 2021	Replace policy	Policy updated with literature review through January 28, 2021; references added; removed some outdated references. Policy statement unchanged.
June 2022	Replace policy	Policy updated with literature review through January 19, 2022; no references added. Policy statement unchanged.
June 2023	Replace policy	Policy updated with literature review through January 23, 2023; reference added. Policy statement unchanged.
June 2024	Replace policy	Policy updated with literature review through February 22, 2024; no references added. Policy statement unchanged.

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