



Subject: Neural Therapy
Document #: MED.00097
Status: Reviewed

Publish Date: 01/03/2024 Last Review Date: 11/09/2023

Description/Scope

This document addresses neural therapy, a treatment approach based on the concept that energy flows freely through the body of a healthy person. Proponents claim that injury, disease, malnutrition, stress and even scar tissue disrupt this flow creating energy imbalances called interference fields. Neural therapy purports to manage chronic disease and disorders by considering four components: the structural component, the electromagnetic component, the biochemical component and the psychological component. Treatments include anesthetic injections, including those to areas distant from the site of the pain, medication and nutritional support, electromagnetic stimulation and psychological intervention.

Note: Please see the following document for additional information on related topics:

• CG-ANC-03 Acupuncture

Position Statement

Investigational and Not Medically Necessary:

Neural therapy is considered investigational and not medically necessary for all indications.

Rationale

Neural therapy (NT) is based on electrical disturbance and restricted lymph system theories. It is based on the belief that a distortion in the connective tissue of the body, interference in structure, lymph flow or electrical conduction can cause illness. The goal of NT is to correct the interference and heal the illness or symptoms. However, even those who practice NT acknowledge that the process is not well understood.

Published evidence from a nonrandomized, comparative trial (n=60) compared the short-term effects of NT with physical therapy for the treatment of chronic low back pain (LBP) (Atalay, 2013). NT consisted of anesthetic injections into scars, trigger points, and acupuncture points, and physical therapy, which consisted of various exercises, use of superficial and deep heating and analgesic stimulation using transcutaneous electrical nerve stimulation (TENS). Outcome measures included pain (visual analogue scale [VAS]); function (Roland Morris Disability Questionnaire [RMDQ]); quality of life (QOL), Nottingham Health Profile (NHP); and anxiety and depression (Hospital Anxiety and Depression Scale [HADS]). When differences of the pre- and post-treatment scores between two treatment groups were compared, subjects in the NT group demonstrated significantly better improvement relative to the physical therapy group for RMDQ (p=0.021), NHP-pain (p=0.027), NHP-physical activity (p=0.004), and NHP-social isolation (p=0.045). Other comparisons between the two groups were not significant. Preliminary findings of this study suggested that NT may be effective for pain management in individuals with LBP. However, the study was characterized by several methodological limitations, including lack of placebo controls, lack of follow-up assessment, and varying degrees of disease severity among all subjects at baseline. As a result, no definitive conclusions could be made regarding the safety and effectiveness of NT for this particular indication.

In 2021, Yilmaz reported the results of a randomized trial to determine the effectiveness of NT in individuals with chronic LBP who were resistant to medical and physical therapies. A total of 50 individuals were randomly divided into 2 groups: Group 1, having a single trigger point injection into the lumbar region or gluteal muscle and Group 2, NT. NT consisted of local-segmental treatment (intradermal injections) from T10 to S4 on the lumbosacral region, 5 M injection (intradermal injections of the projections of the pelvic organs on the suprapubic region), deep pelvic plexus injection, and intravenous injection for 5 sessions in a week. Injections into the umbilicus for all subjects and injections into scars resulting from vaccination and surgical operations such as cesarean section, if any, were also applied at only the first session. Scores were recorded using a visual analogue scale (VAS) of pain intensity and the Roland Morris Disability Questionnaire (RMDQ) at baseline and 1, 3, and 6 months post-injection. The VAS and RMDQ scores at 3 and 6 months were significantly lower in Group 2 versus Group 1 (p < 0.05) meaning less pain and disability in the NT group. However, this study had significant design weaknesses including absence of a placebo control group, lack of blinding, and lack of long-term follow-up that make it difficult to interpret the validity of this work.

Bölük Şenlikci and colleagues (2021) published results of a prospective, randomized controlled study on the effects of NT on pain and hand function in individuals with De Quervain tenosynovitis, a common cause of lateral wrist pain. A total of 36 individuals were randomly assigned to either NT or control groups. Treatment with a thumb splint and rest was assigned to both groups. NT sessions occurred twice a week for 2 weeks and consisted of local injection of procaine anesthetic in the wrist, paraspinal intradermal injections at C5-T8, injection of the trigger points of the forearm muscles and stellate ganglion injections. Subjects were evaluated with the VAS for current pain and the Duruöz Hand Index (DHI) of hand function at the beginning of the study, then at 1 and 12 months after the end of NT. Both VAS and DHI are self-reported scales. In both the NT and control groups, VAS and DHI scores were significantly lower (meaning decreased pain and increased function, respectively) at 1 and 12 months of follow-up compared to baseline. VAS scores at both follow-up times were lower in the NT group than those of the control group. DHI scores at 1 month follow-up were lower in the NT group than in the control group, but by the 12 month follow-up DHI scores were the same in NT and control. The authors concluded that NT is a safe and effective method for the treatment of De Quervain tenosynovitis. Nevertheless, there are some important limitations to this study including lack of blinding, lack of placebo controls and self-reported results. The DHI hand function results were no better than control at 1 year which calls into question the value of NT versus standard of care.

Overall, there is insufficient published literature that demonstrates the clinical utility and effectiveness of this treatment modality for any indication (Atalay, 2013; Hui, 2012; Lorentzen, 2012).

Background/Overview

NT is promoted mainly to relieve chronic pain, reduce disability, and improve QOL. It is also thought to help individuals with allergies, hay fever, headaches, arthritis, asthma, hormone imbalances, sports or muscle injuries, gallbladder, heart, liver disease, dizziness,

depression, menstrual cramps, skin and circulation problems. NT originated in Germany in the late 1800s with the idea that the nervous system influences all bodily functions. Later, in the 1940s, practitioners believed that injecting local anesthetics could affect distant, unrelated parts of the body. This theory was based on a clinical anecdote describing the relief of shoulder pain in an individual following the injection of an anesthetic drug into an existing scar on the leg. From this experience arose the notion of interference fields and the development of NT.

NT is not to be confused with nerve blocks, local anesthesia injections, or acupuncture. Nerve blocks involve injections of medication to relieve pain caused by stimulation of a peripheral nerve. Local anesthesia is the injection of an anesthetic agent at a local site to relieve localized pain. Acupuncture, a form of traditional Chinese medicine, stimulates certain points on the body associated with energy channels (referred to as "meridians") with the insertion and manipulation of fine needles. Proponents of NT propose that local injections of anesthetic agents into areas of the body, such as scars, that are unrelated to the site of pain, may interfere with the electrical activity of the nervous system and relieve pain.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services are Investigational and Not Medically Necessary:

When the code describes a procedure indicated in the Position Statement section as investigational and not medically necessary.

CPT

99199 Unlisted special service, procedure or report [when specified as 'neural therapy']

Note: if specific components are coded separately, these services are considered to be

investigational and not medically necessary

ICD-10 Diagnosis

All diagnoses

References

Peer Reviewed Publications:

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- Bölük Şenlikci H, Odabaşı ÖS, Ural Nazlıkul FG, Nazlıkul H. Effects of local anaesthetics (neural therapy) on pain and hand functions in patients with De Quervain tenosynovitis: a prospective randomised controlled study. Int J Clin Pract. 2021; 75(10):e14581.
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- Yılmaz E. The determination of the efficacy of neural therapy in conservative treatment-resistant patients with chronic low back pain. Spine (Phila Pa 1976). 2021; 46(14):E752-E759.

Government Agency, Medical Society and Other Authoritative Publications:

- Learman LA, McHugh KW. Chronic Pelvic Pain: American College of Obstetricians and Gynecologists (ACOG). Practice Bulletin, Number 218. Obstet Gynecol. 2020; 135(3):e98-e109.
- Yadav V, Bever C, Bowen J, et al. Summary of evidence-based guideline: complementary and alternative medicine in multiple sclerosis: Report of the guideline development subcommittee of the American Academy of Neurology. Neurology. 2014; 82(12):1083-1092.

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The use of specific product names is illustrative only. It is not intended to be a recommendation of one product over another, and is not intended to represent a complete listing of all products available.

Document History

Status Date Action

Reviewed	11/09/2023	Medical Policy & Technology Assessment Committee (MPTAC) review. Updated References section.
Reviewed	11/10/2022	MPTAC review. Updated Rationale, Background/Overview and References sections.
Reviewed	11/11/2021	MPTAC review. References were updated.
Reviewed	11/05/2020	MPTAC review. References were updated.
Reviewed	11/07/2019	MPTAC review. References were updated.
Reviewed	01/24/2019	MPTAC review. References were updated.
Reviewed	01/25/2018	MPTAC review. The document header wording was updated from "Current Effective
		Date" to "Publish Date." References were updated.
Reviewed	02/02/2017	MPTAC review. References were updated.
Reviewed	02/04/2016	MPTAC review. References were updated. Removed ICD-9 codes from Coding
		section.
Reviewed	02/05/2015	MPTAC review. Rationale and References sections were updated.
Reviewed	02/13/2014	MPTAC review. Rationale and references were updated.
Reviewed	02/14/2013	MPTAC review. References were updated.
Reviewed	02/16/2012	MPTAC review. References updated.
Reviewed	02/17/2011	MPTAC review. References updated.
Reviewed	02/25/2010	MPTAC review. References updated.
Reviewed	02/26/2009	MPTAC review. References updated.
New	02/21/2008	MPTAC review. Initial document development.

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