



**Kansas City**

An Independent Licensee of the Blue Cross and Blue Shield Association

## Neural Therapy

**Policy Number:** 2.01.85

**Last Review:** 2/2014

**Origination:** 2/2012

**Next Review:** 2/1015

### **Policy**

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Blue Cross and Blue Shield of Kansas City (Blue KC) will not provide coverage for neural therapy. This is considered investigational.

Please note: The following services performed with neural therapy will be denied per the benefit exclusion as related to the non-covered investigational procedure. These services include, but are not limited to: ultrasound imaging, nerve conduction studies, ultrasound guidance for the injection, vasopneumatic compression and neuromuscular rehabilitation.

### **When Policy Topic is covered**

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Not Applicable

### **When Policy Topic is not covered**

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Neural therapy is considered **investigational** for all indications.

### **Considerations**

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Neural therapy should be distinguished from the use of peripherally injected anesthetic agents for nerve blocks or local anesthesia. The site of the injection for neural therapy may be located far from the source of the pain or injury. The length of treatment can vary from one session to a series of sessions over a period of weeks or months.

### **Description of Procedure or Service**

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Neural therapy involves the injection of a local anesthetic such as procaine or lidocaine into scars, trigger points, acupuncture points, tendon and ligament insertions, peripheral nerves, autonomic ganglia, the epidural space, and other tissues to treat chronic pain and illness. When the anesthetic agent is injected into traditional acupuncture points, this treatment may be called neural acupuncture.

### **Background**

The practice of neural therapy is based on the belief that energy flows freely through the body. It is proposed that injury, disease, malnutrition, stress, and scar tissue disrupt this flow, creating disturbances in the electrochemical function of tissues and energy imbalances called "interference fields." Injection of a local anesthetic is believed to reestablish the normal resting potential of nerves and flow of energy. Alternative theories include fascial continuity, the ground (matrix) system, and the lymphatic system. (1)

There is a strong focus on treatment of the autonomic nervous system, and injections may be given at a location other than the source of the pain or location of an injury. Neural therapy is promoted mainly to relieve chronic pain. It has also been proposed to be helpful for allergies, hay fever, headaches, arthritis, asthma, hormone imbalances, libido, infertility, tinnitus, chronic bowel problems, sports or muscle injuries, gallbladder, heart, kidney, or liver disease, dizziness, depression, menstrual cramps, and skin and circulation problems.

## **Rationale**

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This policy was created in 2011 and updated periodically using the MEDLINE database. The most recent literature update was performed through November 4, 2013.

Neural therapy is an alternative medicine modality that was developed in Germany and is most commonly reported in Europe. Most of the literature on neural therapy consists of non-English language publications.

In 2012, Hui and colleagues reported a non-blinded randomized controlled trial of complementary and alternative medicine (CAM) for chronic herpes zoster-related pain. (2) The 59 patients included in the trial had a confirmed diagnosis of herpes zoster of at least 30 days in duration (median of 4.8 months, range, 1 month to 15 years) and with at least moderate postherpetic neuralgia pain (>4 on a 10-point Likert scale). The therapy included 3 weeks of neural therapy (injection of 1% procaine at up to 6 points along the affected dermatome) along with other therapies from traditional Chinese medicine (i.e., acupuncture, cupping and bleeding, and Chinese herbs) and meditation. A wait-list control group received the same treatment beginning 3 weeks after randomization. Intent-to-treat analysis of pain scores at 3 weeks showed significant improvement in the CAM group (baseline: 7.5, post-treatment: 2.3), with little change in the waitlist control group (baseline: 7.8; 3 weeks: 7.2). A reduction in pain of at least 50% was observed in 66.7% of patients in the treatment group compared with 8.7% in the control group. In the 56% of patients who responded to a questionnaire after 1-2 years, 78.8% reported continued relief of pain. Interpretation of the results is limited by the multiple interventions provided and the possibility of a placebo effect in this non-blinded study.

One English language report from 1999 describes a small double-blind, randomized placebo-controlled cross-over trial in 21 patients with multiple sclerosis. (3) Anesthetic or saline was injected at acupuncture points in the ankle and at 14 or 15 points around the circumference of the head. Patients received 2 injections of anesthetic or saline in the first week; in the second week all patients received anesthetic injections. At the end of the first week, 8 of 11 patients in the active treatment group and 1 of 10 in the placebo group had improved in one or more functions on the Kurtzke scale. Therapy was continued as needed for up to 3.5 years, with long-term improvements being reported in over 50% of patients. At the time of publication, the authors reported having treated more than 300 patients with multiple sclerosis with this approach.

A 2013 non-randomized comparative study from Turkey compared neural therapy (n=33) versus physical therapy (n=27) for the treatment of chronic low back pain. (4) The average duration of symptoms before treatment was 13.78 months. Patients who had not previously been treated with physical therapy were assigned to the physical therapy group and patients who had previously failed physical therapy were assigned to the neural therapy group. Physical therapy consisted of exercises, hot pack, ultrasound and TENS over 15 sessions. Neural therapy consisted of anesthetic injection into scars, trigger points, and acupuncture points over 5 sessions. Outcome measurements included the visual analog score (VAS) for pain, the Roland Morris Disability Questionnaire (RMDQ) for disability, the Nottingham-Health-Profile (NHP) for quality-of-life, and the Hospital Anxiety-Depression Scale (HADS) for depression, anxiety and quality of life. The neural therapy group exhibited greater disability and worse quality of life at baseline. Both groups improved over time, and there was greater improvement in the neural therapy group on some of the outcome measures. Interpretation of this study is limited due to the nonrandomized treatment assignment, lack of comparability between groups at baseline, and lack of a placebo control.

In a case series from 1990, Arnér and colleagues reported prolonged relief of neuralgia after regional anesthetic blocks in 25 of 38 patients. (5) All patients had neuralgia due to nerve injury (endogenous entrapment or surgical or accidental trauma) with a mean pain duration of 3.8 years (range, 6 months to 12 years). All patients had a demonstrable sensory deficit or sensory hyperfunction within the cutaneous territory supplied by the injured nerve measured by quantitative sensory testing (QST). None of the patients had the classical type of complex regional pain syndrome (previously called reflex sympathetic dystrophy). Each patient received a series of 2-23 blocks (median 5.2 blocks) of

bupivacaine. Sixteen patients experienced subjective improvement for weeks to months after the series of blocks, but a second series of blocks was effective in only 7 of these patients. Four of the 7 reported sustained improvement after 1-4 years. Thirty of the 38 patients did not experience long-lasting pain relief and were subsequently treated with transcutaneous electrical nerve stimulation (TENS). The report concluded that nerve blocks with local anesthetics rarely provide long-term, complete relief of neuralgia.

In 2011, Schmittinger and colleagues reported a case of brainstem hemorrhage following neural therapy for decreased libido. (6)

### **Summary**

Neural therapy is an alternative medicine modality that involves the injection of a local anesthetic into various tissues to treat chronic pain and illness. There are few English language reports, and the available studies have methodologic limitations that preclude conclusions on efficacy. Therefore, the evidence is insufficient to permit conclusions concerning the health benefit of this procedure, and neural therapy is considered investigational.

### **Medicare National Coverage**

There is no national coverage determination.

### **References**

1. Frank BL. Neural therapy. *Phys Med Rehabil Clin N Am* 1999; 10(3):573-82, viii.
2. Hui F, Boyle E, Vayda E et al. A randomized controlled trial of a multifaceted integrated complementary-alternative therapy for chronic herpes zoster-related pain. *Altern Med Rev* 2012; 17(1):57-68.
3. Gibson RG, Gibson SL. Neural therapy in the treatment of multiple sclerosis. *J Altern Complement Med* 1999; 5(6):543-52.
4. Atalay NS, Sahin F, Atalay A et al. Comparison of efficacy of neural therapy and physical therapy in chronic low back pain. *Afr J Tradit Complement Altern Med* 2013; 10(3):431-5.
5. Arner S, Lindblom U, Meyerson BA et al. Prolonged relief of neuralgia after regional anesthetic blocks. A call for further experimental and systematic clinical studies. *Pain* 1990; 43(3):287-97.
6. Schmittinger CA, Schar R, Fung C et al. Brainstem hemorrhage after neural therapy for decreased libido in a 31-year-old woman. *J Neurol* 2011; 258(7):1354-5.

### **Billing Coding/Physician Documentation Information**

There are no specific HCPCS codes for these local anesthetics when injected in this fashion (there is a code for IV lidocaine). The procedure would be reported using CPT codes for therapeutic injection such as:

20550: Injection(s); single tendon sheath, or ligament, aponeurosis

20551: Injection(s); single tendon origin/insertion

20552- 20553: Code range for injection(s); single or multiple trigger point(s)

64400-64450: Code range for injection, anesthetic agent into nerves

64479-64484: Code range for injection, anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance by spinal region

64505-64530: Code range for injection, anesthetic agent into autonomic nerves/ganglia

96372: Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular

### **Additional Policy Key Words**

N/A

### **Policy Implementation/Update Information**

2/1/12 New policy; considered investigational.

2/1/12 Policy clarified regarding other services performed in conjunction with neural therapy.

2/1/13 Policy statement unchanged.

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