MASSACHUSETTS

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Medical Policy

Surgical Deactivation of Headache Trigger Sites

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Policy Number: 801

BCBSA Reference Number: 7.01.135 (For Plan internal use only)
NCD/LCD: N/A

Related Policies

- Biofeedback for the Treatment of Headache, #152
- Botulinum Toxin Injections, #006
- Occipital Nerve Stimulation, #237

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Surgical deactivation of trigger sites is considered **INVESTIGATIONAL** for the treatment of migraine and non-migraine headache.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	This is **not** a covered service.
Commercial PPO and Indemnity	This is **not** a covered service.
Medicare HMO Blue℠	This is **not** a covered service.
Medicare PPO Blue℠	This is **not** a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

There is no specific CPT code for this service.

Description

MIGRAINE HEADACHE

Migraine is a common headache disorder with a prevalence in the United States of approximately 18% in women and 6% in men.[1,] According to the International Headache Society (2018), migraine headache is a recurrent disorder with attacks lasting 4 to 72 hours.[2,] Typical features of migraine headaches include unilateral location, pulsating quality, moderate or severe intensity, and associated symptoms such as nausea, photophobia, and/or phonophobia.

Treatment

A variety of medications are used to treat acute migraine episodes. These include medications taken at the onset of an attack to abort the attack (eg, triptans, ergotamines, and certain calcitonin gene-related peptide [CGRP] receptor antagonists), and medications to treat the pain and other symptoms of migraines once they are established (eg, non-opioid analgesics, antiemetics). Prophylactic medication therapy (eg, certain antidepressants, beta-blockers, and anti-seizure medications) may be appropriate for people with migraines that occur more than 2 days per week. Onabotulinumtoxin A and several CGRP receptor antagonists have also been approved by the U.S. Food and Drug Administration (FDA) as prophylactic treatments for episodic and/or chronic migraines. In addition to medication, behavioral treatments such as relaxation and cognitive therapy are used to manage migraine headache.

Surgical Deactivation

Surgical deactivation of trigger sites is another proposed treatment of migraine headache. The procedure was developed by a plastic surgeon (Bahman Guyuron, MD), following observations that some patients who had cosmetic forehead lifts reported improvement or elimination of migraine symptoms postsurgery.[3,4,] The procedure is based on the theory that migraine headaches arise due to inflammation of trigeminal nerve branches in the head and neck caused by irritation of the surrounding musculature, bony foramen, and perhaps fascia bands. Accordingly, surgical treatment of migraines involves removing the relevant nerve sections, muscles, fascia, and/or vessels. The treatment is also based on the theory there are specific migraine trigger sites and that these sites can be located in individual patients. In studies conducted by Guyuron's research group, clinical evaluation and diagnostic injections of botulinum toxin have been used to locate trigger sites. The specific surgical procedure varies according to the patient's migraine trigger site. The surgical procedures are performed under general anesthesia in an ambulatory care setting and take an average of 1 hour.

Surgical procedures have been developed at 4 trigger sites: frontal, temporal, rhinogenic, and occipital. Frontal headaches are believed to be activated by irritation of the supratrochlear and suborbital nerves by glabellar muscles or vessels. The surgical procedure involves the removal of the glabellar muscles encasing these nerves. Fat from the upper eyelid is used to fill the defect in the muscles and shield the nerve. Temporal headaches may be activated by inflammation of the zygomatico-temporal branch of the trigeminal nerve by the temporalis muscles or vessels adjacent to the nerve. To treat migraines located at this trigger site, a segment (»2.5 cm) of the zygomatico-temporal branch of the trigeminal nerve is removed endoscopically. Rhinogenic headaches may involve intranasal abnormalities (eg, deviated septum), which may irritate the end branches of the trigeminal nerve. Surgical treatment includes septoplasty and turbinectomy. Finally, occipital headaches may be triggered by irritation of the occipital nerve caused by the semispinalis capitis muscle or the occipital artery. Surgery consists of removal of a segment of the semispinalis capitis muscle medial to the greater occipital nerve approximately 1 cm wide

and 2.5 cm long, followed by insertion of a subcutaneous flap between the nerve and the muscle to avoid nerve impingement.

Non-Migraine Headache
It has been proposed that other types of headaches (eg, tension headaches) may also be triggered by irritation of the trigeminal nerve.

Treatment
Although the mechanism of action is less well established for headaches other than migraine, it is possible that surgical treatment of trigger sites may also be beneficial for some non-migraine headaches.

Summary

Migraine is a common headache disorder that is treated using various medications, which can be taken at the onset of an attack and/or for migraine prophylaxis. Other treatments include behavioral treatments and botulinum toxin injections. Surgical deactivation of trigger sites is another proposed treatment. Surgical deactivation is based on the theory that migraine headaches arise due to inflammation of the trigeminal nerve branches in the head and neck and that specific trigger sites can be identified in individual patients. Surgical deactivation has also been proposed for other types of headaches (eg, tension headaches).

For individuals who have migraine headaches who receive surgical deactivation of headache trigger sites, the evidence includes randomized controlled trials (RCTs). Relevant outcomes are symptoms, change in disease status, quality of life (QOL) , and treatment-related morbidity. Three RCTs have been published; only 1 used a sham control and blinded patients to the treatment group. All 3 reported statistically significantly better outcomes at 12 months in patients who received decompression surgery for migraine headache than the control intervention. However, the trials were subject to methodologic limitations (eg, unclear and variable patient selection processes, variability in surgical procedures depending on trigger site). In addition, findings from 2 trials with no blinding or sham-controls were subject to the placebo effect. Additional sham-controlled randomized studies are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have non-migraine headaches who receive surgical deactivation of headache trigger sites, the evidence includes no published studies. Relevant outcomes are symptoms, change in disease status, QOL , and treatment-related morbidity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Policy History

Date	Action
4/2025	Annual policy review. References updated. Policy statements unchanged.
4/2024	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
4/2023	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
3/2022	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
4/2021	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
4/2020	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
4/2019	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
11/2015	Annual policy review. New references added.
10/2014	Annual policy review. New references added.
10/2013	Annual policy review. Policy statement clarified.

2/2013	New medical policy describing investigational indications.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References

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