
Subject:	Surgical and Ablative Treatments for Chronic Headaches	Publish Date:	04/07/2021
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Description/Scope

This document addresses surgical and ablative treatments for chronic headaches, such as migraine and tension type headaches, and occipital neuralgia. A variety of procedures are proposed for this purpose and include, for example, identification of nerve trigger points in the forehead and surgically removing muscle tissue from these areas, removing intranasal contact points between opposing nasal mucosal surfaces and closure of a patent foramen ovale. This document does not address sinus surgery for chronic sinus disease with associated headache when there is evidence the sinus disease is likely to be the cause of the headache.

Note: Please see the following related documents for additional information:

- SURG.00032 Patent Foramen Ovale and Left Atrial Appendage Closure Devices for Stroke Prevention
- SURG.00112 Implantation of Occipital, Supraorbital or Trigeminal Nerve Stimulation Devices (and Related Procedures)
- SURG.00144 Occipital Nerve Block Therapy for the Treatment of Headache and Occipital Neuralgia
- CG-SURG-18 Septoplasty

Position Statement

Investigational and Not Medically Necessary:

Surgical treatment for chronic headaches (including but not limited to chronic migraine headache and chronic tension type headache) is considered **investigational and not medically necessary**. This includes, but is not limited to, the following procedures:

- Resection of musculature, including but not limited to the corrugator supercilii muscle, or any soft tissue from the forehead, periorbital, occipital or other facial or scalp areas; **or**
- Manipulation or repositioning of any muscle or other soft tissue within these areas; **or**
- Resection of any portion of the trigeminal nerve or its branches; **or**
- Nasal or sinus surgery, including, but not limited to procedures involving the nasal septum, turbinates or sinuses, when performed for the treatment of chronic headache when there is no evidence of acute or chronic sinus disease; **or**
- Closure of patent foramen ovale.

Surgical and ablative treatments of occipital neuralgia are considered **investigational and not medically necessary**. This includes, but is not limited to, the following procedures for treatment of occipital neuralgia:

- Thermal neurolysis (thermal and cryodenervation);
- Neuroplasty;
- Decompression of the occipital nerves;
- Resection or partial resection of muscle or tissue.

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Rationale

Surgical and Ablative Treatments of Chronic Headache

In 2012, the American Headache Society (AHS) released a statement urging caution when using surgical interventions for the treatment of headaches, which stated that surgery is a “last-resort” option and is not appropriate for most individuals. They cite a lack of sufficient data on long-term benefit and note that surgical interventions have risks, including that of irreversible side effects.

Resection, manipulation or repositioning of musculature surgery, or nerve resection:

Several randomized controlled trials (RCTs) evaluating surgical deactivation of migraine trigger sites have been published. Guyuron and colleagues (2005) conducted an RCT in 125 individuals diagnosed with migraine headaches. Of these, 100 were randomly assigned to the treatment group and 25 served as controls. The treatment group received sequential Botox injections for identification of triggers at the “four most common sites,” beginning with the most common site and proceeding at monthly intervals according to an injection algorithm until all potential trigger points were found. Trigger points were found in 91 individuals, 65% of whom had three or four trigger sites identified. A positive response was defined as at least a 50% reduction in intensity and/or frequency of migraine headache lasting at least 4 consecutive weeks, and these individuals were considered surgical candidates. The 25 controls received 0.5 ml. of saline as a “placebo,” however no information was provided regarding their response and it is unclear which of the four common trigger points were injected in this group.

For the treatment group with frontal triggers identified, the glabellar muscle group, including the corrugator supercilii, depressor supercilii and procerus muscles, was removed to relieve compression of the supraorbital and supratrochlear nerves traversing these muscles. Those with temporal migraine underwent endoscopic removal of 3 cm of the zygomaticotemporal branch of the trigeminal nerve to prevent its compression by the temporalis muscle. For those with occipital migraine, a portion of the semispinalis capitis muscle surrounding the greater occipital nerve was removed and the nerve shielded from the muscle with a subcutaneous flap. Participants with migraines triggered from the nasal septum and turbinates underwent septoplasty and inferior and/or middle turbinectomies based on the “intranasal abnormality.”

There were 89 individuals in the treatment group who completed follow-up. Of these 89, 82 noted at least a 50% reduction in migraine headache frequency and intensity. Post-operatively, 31 reported elimination and 51 reported improvement over a follow-up period of 396 days. In comparison, 3 of the 19 in the control group who completed 1 year follow-up recorded reduction in migraine headaches and no participant observed elimination. Adverse effects from the surgery were minor and transient; however, 23% of those receiving Botox in the temporal area developed hollowing of the temples giving the face an “hour glass” appearance. It was concluded that surgical deactivation of migraine trigger sites can eliminate or significantly reduce migraine symptoms but that additional studies are necessary to clarify the mechanism of action and to determine the long-term results. Drawbacks of this study include lack of information regarding the response of the control group to placebo or sites of injection in this group, and no description of other migraine therapies or any changes in therapy received by either the control or treatment group during the study that might have influenced the outcomes.

In 2010, Guyuron and colleagues reported 5-year follow-up data on the prior study. A total of 79 of the 89 individuals in the treatment group who underwent surgery were followed for 5 years. Ten participants underwent

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deactivation of additional (different) trigger sites during the follow-up period and were not included in the 5-year analysis. The authors stated that these 10 participants did not affect statistical findings. At 5 years, 62 of the 69 participants (88%) had a positive response to the surgery. Twenty individuals (29%) reported complete elimination of migraine headaches, while 41 (59%) noticed a significant decrease and 8 (11%) had no significant change. Compared to the baseline questionnaires of the SF-36 (short form 36 health survey), MSQ (Mental Status Questionnaire), and MIDAS (Migraine Disability Assessment) testing values, all measured variables at 60 months improved significantly ($p < 0.0001$).

In 2009, Guyuron and colleagues conducted a single-center blinded randomized placebo controlled trial for surgical treatment of frequent moderate to severe migraine headaches. Headache trigger sites were identified by a positive response to botulinum toxin injections. The participants were randomly assigned to a treatment group of actual surgery ($n=49$) or sham group ($n=26$). The treatment group had muscle or nerve tissue removed from their trigger site. The sham surgery group had exposure but not resection of the muscles and nerves through a similar incision. At 12 months, the treatment group showed statistically superior outcomes compared to the sham group.

An additional small RCT by Guyuron and colleagues was published in 2015. This study compared two methods of trigger site deactivation: avulsion versus decompression of the zygomaticotemporal branch of the trigeminal nerve. A total of 19 subjects completed the study and were evaluated after a minimum 12 months of follow-up. All subjects experienced greater than 50% improvement in frequency, migraine days, severity, and duration in 34 of the 38 operative sites. There was no statistical significance reported in reduced migraine headache frequency, days, severity, and duration between the two groups. This study did not compare migraine surgery with a different intervention and, therefore, the efficacy of the procedure and a comparator intervention cannot be evaluated.

As summarized in a review by Mathew (2014), limitations of the above studies include “unclear patient selection, lack of sham group in some studies, and the omission of information regarding preventative/abortive medications utilized.” The author concluded, “future trials should address these issues, and should avoid using ambiguous and unclear primary outcomes such as number of migraines, pain intensity, duration, and migraine index which are not validated endpoints in migraine studies.”

In 2018, the American Society for Plastic Surgery (ASPS) released a position statement on peripheral nerve/trigger site/peripheral nerve surgery for chronic refractory migraine headache. The document concluded, “based on a comprehensive literature search..., peripheral nerve/trigger site surgery for refractory chronic MH [migraine headache] is safe and effective in the treatment of patients with a suspected peripherally-generated/centrally-conducted MH etiology”. The only RCT cited as support for the position was by Guyuron (2005), which is discussed above.

A 2019 meta-analysis by Vincent and colleagues pooled data from three RCTs on trigger site surgery for migraine and found significantly greater odds of elimination of migraine after 1 year in the group receiving surgery compared with a control group (Odds Ratio [OR], 21.46; 95% confidence interval [CI], 5.64 to 81.58, random effects model). There was a wide confidence interval, indicating a lack of precision in the pooled estimate; the pooled analysis has the same limitations as the individual trials, as discussed above by Mathew (2014). Another 2019 meta-analysis of studies evaluating surgery for migraine surgery (Nagori, 2019) did not conduct any pooled analyses comparing outcomes in individuals who had surgery compared with a comparison intervention.

Nasal or sinus surgery:

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In 2017, La Mantia and colleagues published an RCT comparing surgery to medical treatment in 94 subjects with chronic headache not relieved by analgesics who presented with intranasal mucosal contact points. Participants were randomized to undergo surgery (n=47) or medical treatment with fluticasone propionate aqueous nasal spray (n=47). Surgical treatment involved endoscopic removal of the mucosal contacts (lateral concha bullosa resection or endoscopic septoplasty) or endonasal septoplasty. Pain was measured by a visual analogue scale (VAS) ranging from 0=not troublesome to 10=worst thinkable troublesome. Six months after treatment, there were significantly lower VAS scores in the surgical group (mean, 1.4; SD [standard deviation], 1.1) than the medical group (mean, 3.8; SD, 1.1; $p<0.001$). Duration of headache also differed significantly between groups. Mean reported duration at 6 months was 0.4 hours (SD, 0.6) in the surgical group and 2.4 hours (SD, 0.9) in the medical group ($p<0.001$). However, the mean headache frequency, 2.9 days per month (SD, 1.4) in the surgical group and 4.7 days per month (SD, 1.6) in the medical group, did not differ significantly between groups ($p=0.031$). This study evaluated several types of surgery and only reported outcomes to 6 months.

Several observational studies have also evaluated nasal or sinus surgery for headache. Abu-Samra and colleagues (2011) conducted a prospective, controlled, single-blinded study of 42 individuals with chronic daily headaches refractory to medical treatment and CT imaging showing a nasal contact point between the septum and the lateral nasal wall as well as other nasal contact points such as between the septum and turbinates and/or the medial wall of the ethmoid sinuses. A local anesthetic test was performed on each participant at the specified contact point, however the test results were not considered criteria for surgical decision. The surgical technique was either septoplasty or submucous resection with or without endoscopic assisted partial turbinectomy for both or either turbinates based upon areas of contact. In this cohort, 22 were classified as having chronic tension type headache (CTTH) and 20 were classified as chronic migraineurs (CM). Results from the group showed 8 were totally free from headache and 26 were satisfied with the procedure as their headache severity and frequency could be managed without medication. There was no improvement in 7 and 1 participant had a 50% increase in headache severity. The local anesthetic test was positive in 12 individuals and 6 of this group were also part of the group being totally free from headaches. The authors acknowledged that the sample size was small with no control group. The authors also considered the contact point as a trigger rather than a cause of headache. The authors did not define how the intensity of headaches was measured nor the length of the postoperative observation.

Behin (2004) conducted a small (n=21) retrospective study. They found that for selected individuals with refractory headaches, demonstrable sinonasal contact points (seen on CT scan between the nasal septum and superior or middle turbinate and/or medial wall of the ethmoid sinus), and positive response after topical anesthesia, a surgical approach toward the triggering factor may be useful. Surgeries included septoplasty, middle turbinectomy, medial ethmoidectomy and, in some cases, removal or lateralization of the superior turbinate. Seventy-six percent of the participants reported at least a 50% reduction in headache frequency and severity at 6-12 months. Drawbacks of this study include the unclear number of those with a true migraine diagnosis and the fact that a validated questionnaire was not used raising the issue of interpretation of the data.

Other small studies have evaluated the feasibility and effectiveness of nasal surgery for contact points to relieve chronic headaches (Kunachak, 2002; Mohebbi, 2010; Welge-Luessen, 2003).

There has been only one RCT and it had a relatively small sample size and evaluated several types of surgery. Moreover, the postulated mechanisms constituting the rationale for the procedures require further clarification. Additionally, it is unclear how other potential “trigger point” areas were evaluated or eliminated in some studies focusing only on identifying and treating triggers in either the intranasal region or forehead.

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Closure of patent foramen ovale:

A higher prevalence of patent foramen ovale (PFO) in migraine sufferers compared to the general population has been observed. Theories include elimination of prior paradoxical microemboli to the terminal branches of the basovertebral artery and closure of a shunt previously allowing vasoactive substances triggering migraine to bypass the pulmonary filter.

The first RCT to evaluate PFO closure for treatment of migraine was the Migraine Intervention with STARFlex Technology (MIST) trial, published by Dowson and colleagues in 2008. The trial was double-blind and sham-controlled. Eligibility criteria included 18 to 60 years old, history of migraine with aura starting before age 50, at least 5 migraine days per month, at least 7 headache-free days per month and failure of at least 2 classes of migraine medication. A total of 147 individuals were included, 74 assigned to PFO closure and 73 assigned to a sham procedure. The primary efficacy endpoint was cessation of migraine headache at 3 months according to diary data. Three individuals in each group attained this endpoint and the difference between groups was not statistically significant (difference of -0.06%; 95% CI, -6.45 to 6.34; p=1.0). Secondary efficacy endpoints also did not differ significantly between groups. A total of 16 serious adverse events occurred, 8 of which were possibly or definitely related to the study device.

In 2016, Mattle and colleagues published an RCT comparing PFO closure and medical treatment in 107 individuals with migraine with aura. The trial had blinded endpoint evaluation but subjects and providers were not blinded. The trial recruited individuals with at least 3 migraine attacks or 5 migraine days per month and less than 15 migraine days per month who had failed at least 2 medications. A total of 107 participants were included, 53 in the treatment group and 54 in the medical management group. The primary efficacy endpoint was reduction in migraine days during months 9 to 12 after the intervention compared with the 3 months prior to the intervention, as recorded in a headache diary. There was not a statistically significant difference in the 2 groups on the primary endpoint (p=0.017). Moreover, most secondary endpoints did not differ significantly between the 2 groups.

A third RCT, the PREMIUM trial, was published in 2017 by Tobis and colleagues. This study was double-blind and compared PFO closure with medical management. The study included 230 individuals with 6 to 14 migraine days per month who had failed at least 3 migraine medications. The primary efficacy endpoint was a 50% reduction in migraine attacks at months 10-12 compared with a 2-month period at baseline, as measured by participant diaries. A total of 38.5% in the PFO closure group and 32% in the medical management group attained the primary endpoint. The difference between groups was not statistically significant (difference of 6.4% ; 95% CI, -6.2 to 19.0). Findings on secondary outcomes were mixed. Several secondary endpoints, decrease in the mean number of migraine days per month and complete cessation of migraine, favored the PFO closure group. However, there were no significant differences between groups on other secondary outcomes, change in the migraine disability score and the proportion of participants with at least a 75% reduction in migraine attacks.

A meta-analysis of the three RCTs described above was published by Elbadawi and colleagues in 2019. Primary outcomes varied among the trials and meta-analyses were conducted on a number of outcomes. Findings of the meta-analyses were mixed. For example, a pooled analysis found a significantly greater reduction in monthly migraine attacks with PFO closure versus a control intervention (standardized mean difference [SMD], 0.25; 95% CI, 0.06 to 0.43; p=0.01). However, another pooled analysis did not find a statistically significant difference between groups in complete resolution of migraine headache attacks (OR, 3.67; 95% CI, 0.66 to 20.41; p=0.17).

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In addition to the RCTs, a number of observational studies evaluating PFO closure for treatment of migraine have been published. A 2017 meta-analysis by Shi and colleagues included eight observational studies on the effect of PFO closure on migraine that distinguished between migraine with and without aura. Only one of the eight studies was prospective (Rigatelli, 2010). A meta-analysis of the eight studies found a significantly greater effect of PFO closure on migraine without aura compared with migraine with aura (OR, 2.5; 95% CI, 1.09 to 5.73). The meta-analysis did not compare PFO closure to other treatments for migraine so conclusions about the efficacy of PFO closure cannot be drawn from this analysis.

None of the three RCTs that studied PFO closure for migraine found a significant effect of the procedure on the study's primary outcome (reduction or cessation of migraines). All RCTs were multicenter and had blinded endpoint evaluation. In addition, most secondary outcomes did not find a significant benefit of PFO closure. Observational studies that evaluate PFO closure in individuals with migraine are limited by lack of controls and blinding, and most studies were retrospective.

Surgical and Ablative treatments of Occipital Neuralgia

Various treatments and procedures have been proposed for treatment of occipital neuralgia, however, the published literature addressing these treatments consists of small, nonrandomized studies, case reports and case series, as well as retrospective studies and reviews.

Neurolysis

In a retrospective chart review, Ducic and colleagues (2009) reported on 206 consecutive subjects undergoing neurolysis of the greater or, less commonly, excision of the greater and/or lesser occipital nerves. Preoperative and postoperative visual analogue pain scores and migraine headache indices were measured. Success was defined as a reduction in pain of 50% or greater. Minimum duration of follow-up was 12 months. Of the 206 subjects, 190 underwent greater occipital nerve neurolysis (171 bilateral), 12 subjects underwent greater and lesser occipital nerve excision and 4 underwent lesser occipital nerve excision alone. The authors found that 80.5% of the subjects experienced at least 50% pain relief and 43.4% of the subjects experienced complete relief of headache. Mean preoperative pain score was 7.9 ± 1.4 . Mean postoperative pain was 1.9 ± 1.8 . This study is limited by lack of a control group.

A much smaller case series was published by Gille and colleagues in 2004. The investigators examined surgical treatment of greater occipital neuralgia by neurolysis of the greater occipital nerve and sectioning of the inferior oblique muscle in 10 individuals. Of this group, 3 individuals had anatomic anomalies. Mean follow-up was 37 months. The results of the treatment were assessed according to three criteria: (1) degree of pain on a VAS; (2) consumption of analgesics; and (3) the degree of satisfaction at follow-up. The mean VAS score was 80/100 before surgery and 20/100 at last follow-up. Consumption of analgesics decreased in all individuals. The small size, short follow-up and lack of a control group limits the validity of the results of this study.

Decompression

In 2011, Ducic and colleagues reported on 25 individuals with documented bilateral occipital neuralgia-related chronic headaches who underwent peripheral nerve surgery with decompression of the greater occipital nerve bilaterally, including the area of its intersection with the occipital artery. All individuals were evaluated intraoperatively for evidence of arterially mediated greater occipital nerve compression and the configuration of the nerve-vessel intersection. Pathologic evaluation of the occipital artery from 15 individuals showed vasculitis. The

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purpose of the study was to show that mechanical (and not primary inflammatory) irritation of the nerve by the occipital artery is an important theoretical cause for otherwise idiopathic cases. It was not designed to evaluate the efficacy of decompression surgery. Controlled studies are needed to determine whether decompression surgery improves outcomes in individuals with neuralgia-related chronic headaches.

Pulsed Radiofrequency

Vanelderen and colleagues (2010) conducted a prospective study on 19 participants receiving pulsed radiofrequency (PRF) for the treatment of occipital neuralgia with a 6-month follow-up. Participants with clinical findings suggestive of occipital neuralgia and a positive test block of the occipital nerves with 2 ml of local anesthetic underwent a PRF procedure of the culprit nerves. Mean scores for pain, quality of life, and medication intake were measured at 1, 2, and 6 months post procedure. Mean VAS and median Medication Quantification Scale scores declined by 3.6 units ($p=0.002$) and 8 units ($p=0.006$), respectively, during 6 months. Approximately 52.6% of the participants reported a score of six (pain improved substantially) or higher on the Likert scale after 6 months. No complications were reported. Study limitations include that it had a small sample size and did not include a control group.

Huang and colleagues (2012), in a retrospective data analysis, evaluated PRF for the treatment of occipital neuralgia. A total of 102 individuals with a primary diagnosis of occipital neuralgia were treated with PRF of the greater and/or lesser occipital nerve. A positive primary outcome was predefined as 50% or greater pain relief lasting at least 3 months. The secondary outcome measure was procedural satisfaction. Fifty-two (51%) subjects experienced 50% or greater relief of pain and satisfaction with treatment lasting at least 3 months. The study was uncontrolled and did not report on treatment efficacy beyond 3 months; larger controlled trials reporting longer-term outcomes are needed.

Background/Overview

According to the International Headache Society (IHS), primary headaches are those that are not associated with any demonstrable organic disease, structural or neurologic abnormality. Two types of primary headache are tension-type headache (also known as ordinary headache, stress headache and idiopathic headache) and migraine. Chronic headache, whether migraine or non-migraine, is defined as occurring on 15 or more days per month for more than 3 months.

Tension-type headaches are very common; estimates of lifetime prevalence range from 30% to 70% of the population. Migraines are present in about 28 million people in the United States. The exact pathology of migraines is unknown, but it is felt that a family history of migraine headaches, medications (for example, birth control pills, vasodilators), fatigue, emotional stress and specific foods or alcohol are probable triggers. Migraines manifest as a recurring attack usually lasting for 4-72 hours and involving pain of moderate to severe intensity, often with nausea, sometimes vomiting, sensitivity to light, sound and other sensory stimuli. Management of headaches has consisted largely of pharmacologic treatment (IHS, 2013).

Migraines are generally treated by two approaches: abortive and preventive. The goal of abortive therapy is to prevent a migraine attack or to stop it once it starts. Medications are prescribed to stop a headache during its prodrome stage or once it has begun and may be taken as needed. Preventive treatment is considered if an individual has more than one migraine per week. The goal is to lessen the frequency and severity of the migraine attacks with daily medication.

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It has been proposed that activation of peripheral sensory nerves, including the trigeminal nerve, causes release of peptides, (for example, substance P, calcitonin gene-related peptide, neurokinins), resulting in vasodilatation and migraine headache. Also suggested is that trigger points can be identified, particularly in the region of the forehead, at which peripheral nerve activation occurs. Further, intranasal contact points between mucosal surfaces of the nasal septum and turbinates are suggested to act as triggers releasing pain mediators that are also present in the trigeminovascular system contributing to migraine headaches.

The American Academy of Neurology (AAN) does not address surgical treatment of migraines. Currently their goals of long-term migraine treatment, both pharmacologic and nonpharmacologic are as follows: (AAN, 2004)

- Reduce attack frequency, severity, and disability;
- Reduce reliance on poorly tolerated, ineffective, or unwanted acute pharmacotherapies;
- Improve quality of life;
- Avoid acute headache medication escalation;
- Educate and enable individuals to manage their disease to enhance personal control of their migraine;
- Reduce headache-related distress and psychological symptoms.

Occipital neuralgia is classified as a secondary headache by the ICHD. Secondary headaches are usually associated with any disease, structural or neurologic abnormality. In this case, accurate diagnosing is important because treatment of the underlying problem usually eliminates the headache.

Definitions

Aura: Symptoms such as disturbances in vision, smell or perception that occur prior to a migraine that serve as a warning that the headache may follow.

Etiology: The cause or origin of disease.

Neuroplasty: Surgery to repair or restore nerve tissue.

Neurolysis: The release of a nerve sheath by cutting it longitudinally; operative breaking up of neural adhesions.

Neuralgia: an intense burning or stabbing pain caused by irritation or nerve damage from systemic disease, inflammation, infection, and compression or physical irritation of a nerve.

Nociceptive: Refers to specialized nerve endings that respond to pain or other unpleasant sensations and transmits information about those sensations to the central nervous system.

Occipital: Relating to the back of the head or skull.

Prodrome: The period of time preceding a migraine headache during which a person may feel irritable, out of sorts, moody, unusually sensitive to light or noise, and may notice some fluid retention; this may go on for one or two days or just a few hours before the actual headache begins.

Trigger point: Hyperirritable spots in skeletal muscle that are associated with palpable nodules in taut bands of muscle fibers; the palpable nodules are said to be small contraction knots and a common cause of pain.

Compression of a trigger point may elicit local tenderness, referred pain, or motor dysfunction.

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Medical Policy**Surgical and Ablative Treatments for Chronic Headaches****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:

For the following procedure codes for the headache diagnoses listed, or when the code describes a procedure indicated in the Position Statement section as investigational and not medically necessary.

CPT

14040-14041	Adjacent tissue transfer or rearrangement, forehead, cheeks chin, mouth, neck, axillae, genitalia, hands and/or feet
14060-14061	Adjacent tissue transfer or rearrangement, eyelids, nose, ears and/or lips
15824	Rhytidectomy; forehead
15826	Rhytidectomy; glabellar frown lines
30130	Excision inferior turbinate, partial or complete, any method
30140	Submucous resection inferior turbinate, partial or complete, any method
30520	Septoplasty or submucous resection, with or without cartilage scoring, contouring or replacement with graft
31200	Ethmoidectomy; intranasal, anterior
31201	Ethmoidectomy; intranasal, total
31205	Ethmoidectomy, extranasal, total
31254	Nasal/sinus endoscopy, surgical with ethmoidectomy; partial (anterior)
31255	Nasal/sinus endoscopy, surgical with ethmoidectomy; total (anterior and posterior)
64640	Destruction by neurolytic agent; other peripheral nerve or branch [when specified as thermal or cryodestruction of occipital nerve]
64716	Neuroplasty and/or transposition, cranial nerve
64722	Decompression; unspecified nerve(s) [for example, occipital nerve]
64732	Transection or avulsion of; supraorbital nerve
64734	Transection or avulsion of; infraorbital nerve
64744	Transection or avulsion of; greater occipital nerve
64771	Transection or avulsion of other cranial nerve, extradural
64772	Transection or avulsion of other spinal nerve, extradural
64787	Implantation of nerve end into bone or muscle
64999	Unlisted procedure, nervous system [when specified as pulsed radiofrequency treatment]
67900	Repair of brow ptosis (supraciliary, mid-forehead or coronal approach)
93580	Percutaneous transcatheter closure of congenital interatrial communication (ie, Fontan fenestration, atrial septal defect) with implant

ICD-10 Procedure

00BK0ZZ-00BK4ZZ	Excision of trigeminal nerve [by approach; includes codes 00BK0ZZ, 00BK3ZZ, 00BK4ZZ]
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01510ZZ-01514ZZ	Destruction of cervical nerve [by approach; includes codes 01510ZZ, 01513ZZ, 01514ZZ]
01810ZZ-01814ZZ	Division of cervical nerve [by approach; includes codes 01810ZZ, 01813ZZ, 01814ZZ]
01N10ZZ-01N14ZZ	Release cervical nerve [by approach; includes codes 01N10ZZ, 01N13ZZ, 01N14ZZ]
02U53JZ-02U54JZ	Supplement atrial septum with synthetic substitute [by approach; includes codes 02U53JZ, 02U54JZ]
095U0ZZ-095V4ZZ	Destruction of ethmoid sinus [right or left, by approach; includes codes 095U0ZZ, 095U3ZZ, 095U4ZZ, 095V0ZZ, 095V3ZZ, 095V4ZZ]
09BL0ZZ-09BL8ZZ	Excision of nasal turbinate [by approach; includes codes 09BL0ZZ, 09BL3ZZ, 09BL4ZZ, 09BL7ZZ, 09BL8ZZ]
09BM0ZZ-09BM4ZZ	Excision of nasal septum [by approach; includes codes 09BM0ZZ, 09BM3ZZ, 09BM4ZZ]
09BU0ZZ-09BV4ZZ	Excision of ethmoid sinus [right or left, by approach; includes codes 09BU0ZZ, 09BU3ZZ, 09BU4ZZ, 09BV0ZZ, 09BV3ZZ, 09BV4ZZ]
09DL0ZZ-09DL8ZZ	Extraction of nasal turbinate [by approach; includes codes 09DL0ZZ, 09DL3ZZ, 09DL4ZZ, 09DL7ZZ, 09DL8ZZ]
09DU0ZZ-09DV4ZZ	Extraction of ethmoid sinus [right or left, by approach; includes codes 09DU0ZZ, 09DU3ZZ, 09DU4ZZ, 09DV0ZZ, 09DV3ZZ, 09DV4ZZ]
09TL0ZZ-09TL8ZZ	Resection of nasal turbinate [by approach; includes codes 09TL0ZZ, 09TL4ZZ, 09TL7ZZ, 09TL8ZZ]
09TU0ZZ-09TV4ZZ	Resection of ethmoid sinus [right or left, by approach; includes codes 09TU0ZZ, 09TU4ZZ, 09TV0ZZ, 09TV4ZZ]
0J010ZZ-0J013ZZ	Alteration of face subcutaneous tissue and fascia [by approach; includes codes 0J010ZZ, 0J013ZZ]
0KB00ZZ-0KB04ZZ	Excision of head muscle [by approach; includes codes 0KB00ZZ, 0KB03ZZ, 0KB04ZZ]
0KB10ZZ-0KB14ZZ	Excision of facial muscle [by approach; includes codes 0KB10ZZ, 0KB13ZZ, 0KB14ZZ]

ICD-10 Diagnosis

G43.001-G43.919	Migraine
G44.001-G44.099	Cluster headaches and other trigeminal autonomic cephalgias(TAC)
G44.201-G44.229	Tension-type headache
G50.1	Atypical facial pain
M54.81	Occipital neuralgia
R51.0-R51.9	Headache

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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	02/11/2021	Medical Policy & Technology Assessment Committee (MPTAC) review. Rationale and References sections updated.
	10/01/2020	Updated Coding section with 10/01/2020 ICD-10-CM changes; added R51.0-R51.9 replacing R51 deleted 09/30/2020.
Reviewed	02/20/2020	MPTAC review. Rationale and References sections updated. Updated Coding section; added CPT 14040, 14041, 14060, 14061, 64716, 64771, 64772, 64787; expanded diagnosis range.
Reviewed	03/21/2019	MPTAC review. Rationale and References sections updated.
Reviewed	03/22/2018	MPTAC review. The document header wording updated from “Current Effective Date” to “Publish Date.” Rationale, Background/Overview and References sections updated.
Reviewed	05/04/2017	MPTAC review. Updated the formatting in the Position Statement section. The References section was updated.
Reviewed	05/05/2016	MPTAC review. Rationale and Reference sections updated. Removed ICD-9 codes from Coding section.

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Reviewed	05/07/2015	MPTAC review. Description, Rationale and References sections updated.
Reviewed	05/15/2014	MPTAC review. Description, Rationale, Coding and References sections updated.
Reviewed	05/09/2013	MPTAC review. Rationale, References and Index sections updated.
Reviewed	05/10/2012	MPTAC review. No change to position statement. Rationale updated to address nasal contact point.
Revised	02/16/2012	MPTAC review. Title changed. Position statement revised to clarify nasal surgery criteria and the inclusion of surgical/ablative treatments of occipital neuralgia as investigational and not medically necessary. Description, Rationale, Background, Definitions, Coding and References updated.
Reviewed	02/17/2011	MPTAC review. Rationale and References updated.
Reviewed	02/25/2010	MPTAC review. Rationale and References updated.
Reviewed	02/26/2009	MPTAC review. References updated.
	10/01/2008	Updated Coding section with 10/01/2008 ICD-9 changes.
Reviewed	02/21/2008	MPTAC review. References updated. The phrase “investigational/not medically necessary” was clarified to read “investigational and not medically necessary.” This change was approved at the November 29, 2007 MPTAC meeting.
New	03/08/2007	MPTAC review. Initial document development.

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