



Clinical Indicators: Acoustic Neuroma Surgery

<u>Approach Procedure</u>	CPT	Days¹
Infratemporal post-auricular approach to middle cranial fossa	61591	90
Transtemporal approach to posterior cranial fossa	61595	90
Transcochlear approach to posterior cranial fossa	61596	90
Transpetrosal approach to posterior cranial fossa	61598	90
Craniectomy for cerebellopontine angle tumor	61520	90
Craniectomy, transtemporal for excision of cerebellopontine angle tumor	61526	90
Combined with middle/posterior fossa craniotomy/ craniectomy	61530	90
<u>Definitive Procedure</u>	CPT	Days
Resection of neoplasm, petrous apex, intradural, including dural repair	61606	90
Resection of neoplasm, posterior cranial fossa, intradural, including repair	61616	90
Microdissection, intracranial	61712	90
Stereotactic radiosurgery	61793	90
Decompression internal auditory canal	69960	90
Removal of tumor, temporal bone middle fossa approach	69970	90
<u>Repair Procedure</u>	CPT	Days
Secondary repair of dura for CSF leak, posterior fossa, by free tissue graft	61618	90
Secondary repair of dura for CSF leak, by local or regional flap or myocutaneous flap	61619	90
Decompression facial nerve, intratemporal; lateral to geniculate ganglion	69720	90
Total facial nerve decompression and/or repair (may include graft)	69955	90
Abdominal fat graft	20926	90
Fascia lata graft; by stripper	20920	90
Fascia lata graft; by incision and area exposure, complex or sheet	20922	90
<u>Intraoperative Nerve Monitoring Procedure</u>	CPT	Days
Auditory nerve monitoring, setup	92585	90

¹ RBRVS Global Days



**AMERICAN ACADEMY OF
OTOLARYNGOLOGY–
HEAD AND NECK SURGERY**

Intraoperative neurophysiology testing, hourly	95920	90
Facial nerve monitoring, setup	95925	90

Indications

1. History

- a) Auditory complaints
 - hearing loss
 - fullness
 - distorted sound perception
- b) Tinnitus
 - ringing
 - humming
 - hissing
 - crickets
- c) Disequilibrium
 - unsteadiness
 - dizziness
 - imbalance
 - vertigo
- d) Headache
- e) Fifth and seventh cranial nerve symptoms
 - facial pain
 - facial tingling, numbness
 - tics
 - weakness
- f) Family history of neurofibromatosis type II
- g) Diplopia
- h) Dysarthria, dysphasia, aspiration, hoarseness

2. Physical Examination

- a) Complete head and neck examination
- b) Cranial nerve examination, in particular:
 - tuning fork lateralization
 - nystagmus
 - facial hypesthesia
 - ear canal hypesthesia
 - corneal reflex
 - facial nerve function
 - extraocular movements
 - papilledema
- c) Cerebellar examination
 - Romberg



**AMERICAN ACADEMY OF
OTOLARYNGOLOGY—
HEAD AND NECK SURGERY**

- gait
- tandem gait

3. Preoperative Tests

- Imaging (one is required demonstrating tumor)
 - MRI with gadolinium
 - CT scan, contrast-enhanced
- Audiologic
 - audiogram (pure-tone and speech discrimination)
 - ABR (auditory brainstem response)
- Vestibular
 - ENG (electronystagmography)
- Facial Nerve
 - EEMG (evoked electromyography)

Postoperative Observations

- Neurological and/or mental status changes suggestive of cerebral edema.
- Cerebrospinal fluid leaks—pressure dressings, bed rest, elevated head-of-bed, lumbar catheter (monitor output).
- Hematoma (cerebellopontine angle, epidural)—drainage, pressure dressings, neurological checks.
- Headache, nuchal rigidity, or fever—suggestive of meningitis.
- Tuning fork test to evaluate hearing.
- Facial paresis—protect cornea.
- Monitor intake and output to detect inappropriate antidiuretic hormone syndrome.
- Bleeding at wound sites—reinforce dressings.

Outcome Review

1. One Week

- dizziness and unsteadiness
- hearing level—audiogram when able
- facial function—House-Brackmann Grade
- wound healing
- donor site, if appropriate

2. Beyond One Month

- headache



**AMERICAN ACADEMY OF
OTOLARYNGOLOGY–
HEAD AND NECK SURGERY**

- b) hearing level—audiometric documentation
- c) facial function—House-Brackmann Grade
- d) MRI for residual tumor
- e) Follow up MRI after subtotal resection, as indicated

Associated ICD-9 Diagnostic Codes (Representative, but not all inclusive codes)

- 225.1 Benign neoplasm of cranial nerve
- 237.72 Neurofibromatosis, type 2
- 379.50 Nystagmus, unspecified
- 386 Vertiginous syndrome and other disorders of the vestibular system
- 386.10 Other unspecified peripheral vertigo
- 388.31 Subjective tinnitus
- 388.41 Diplacusis
- 388.42 Hypercusis
- 388.43 Impairment of auditory discrimination
- 388.44 Recruitment
- 388.7 Otagia
- 389.12 Neural hearing loss
- 350.1 Trigeminal neuralgia
- 351.0 Facial paresis/paralysis
- 368.2 Diplopia
- 780.4 Dizziness and giddiness
- 781.3 Lack of coordination
- 784.0 Headache
- 784.49 Hoarseness
- 784.5 Dysarthria, dysphasia
- 787.2 Dysphagia

Additional Information

Co-Surgeon -- Neurosurgeon as needed
Assistant Surgeon -- Varies by procedure
Supply Charges -- N
Anesthesia Code(s)--00120, 00210



Patient Information

Acoustic neuroma is a benign tumor involving the hearing and balance nerve at the base of the brain. Its incidence is about 1 per 100,000 people per year. Acoustic neuromas do not spread throughout the body, but can cause significant disability, even death, by local growth into nearby important brain structures.

Early symptoms of an acoustic neuroma include hearing loss, distorted sound perception, tinnitus, dizziness, and disequilibrium. Later symptoms include headache, unsteadiness, facial pain, tingling, or numbness, facial tics or weakness, double vision, and difficulty in swallowing or talking. There are a number of tests that can be utilized to diagnose acoustic neuromas, the utility of which should be based upon a complete history and physical by an experienced physician. The definitive diagnostic test is an MRI with gadolinium enhancement. However, this is a very expensive examination that should not be used as a screening test, bypassing appropriate clinical evaluation, hearing, and balance testing.

Treatment options include observation with serial MRIs, partial or total surgical removal, and radiation therapy. The treatment depends upon the patient's symptoms, hearing level, health status, age, and the growth rate of the tumor.

Surgery is the treatment of choice for the majority of acoustic neuromas requiring intervention. There are three basic approaches: (1) through the temple, (2) through the ear, and (3) through the back of the head. The approach used depends upon the size and location of the tumor, the status of the preoperative hearing, and the experience and preference of the surgeon. The optimal treatment goal is removal of the tumor while maintaining existing hearing and facial function. In many cases, hearing in the affected ear cannot be preserved. Since acoustic neuromas are usually slow growing, partial tumor removal may be elected by the surgeon to reduce surgical time and preserve facial function. For those patients unable or unwilling to undergo surgery, radiation therapy or observation with yearly MRI scans may be alternatives.

Possible complications that may require further medical and/or surgical rehabilitation include: hearing loss, dizziness, facial weakness or paralysis, prolonged headaches, fluid leak from around the brain, and tumor recurrence.

Important Disclaimer Notice (Updated 8/7/14)

Clinical indicators for otolaryngology serve as a checklist for practitioners and a quality care review tool for clinical departments. The American Academy of Otolaryngology—Head and Neck Surgery, Inc. and Foundation (AAO-HNS/F) Clinical Indicators are intended as ***suggestions, not rules***, and should be modified by users when deemed medically necessary. In no sense do they represent a standard of care. The applicability of an indicator for a procedure must be determined by the responsible physician in light of all the circumstances presented by the individual patient. Adherence to these clinical indicators will not ensure successful treatment in every situation. The AAO-HNS/F emphasizes that these clinical indicators should not be deemed inclusive of all proper treatment decisions or methods of care, nor exclusive of other treatment decisions or methods



**AMERICAN ACADEMY OF
OTOLARYNGOLOGY–
HEAD AND NECK SURGERY**

of care reasonably directed to obtaining the same results. The AAO-HNS/F is not responsible for treatment decisions or care provided by individual physicians. Clinical indicators are not intended to and should not be treated as legal, medical, or business advice.

CPT five-digit codes, nomenclature and other data are copyright 2009 American Medical Association. All Rights Reserved. No fee schedules, basic units, relative values or related listings are included in CPT. The AMA assumes no liability for the data contained herein.

© 2010 American Academy of Otolaryngology-Head and Neck Surgery. 1650 Diagonal Road, Alexandria, VA 22314.