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Clinical Paper

American Association of Oral and Maxillofacial Surgeons

Guidelines to the Evaluation of Impairment of the Oral and Maxillofacial Region

The American Association of Oral and Maxillofacial Surgeons (AAOMS) recognizes the need to establish a specific method of evaluating permanent impairments of the maxillofacial region. The AAOMS Committee on Healthcare and Advocacy has established a methodology of measuring and assigning values for permanent impairment of this area. Using the methods described in this document and the American Medical Association (AMA) *Guides to the Evaluation of Permanent Impairment*, Sixth Edition, the practitioner will be able to assign an impairment value for the patient's maxillofacial region.

Objectives

- Provide a permanent impairment rating for a patient's maxillofacial region.
- Define the various terms associated with impairments.
- Recognize the different purposes for providing an impairment rating (i.e., worker's compensation, social security benefits, personal injury litigation and medical indemnity insurance).
- Understand applicable state regulations for conducting such examinations.

Acknowledgement

The "Report of Medical Evaluation (Permanent Medical Impairment)" (Figure 3) on pages 12-14 and the combined injury ratings (Table 1) on page 5 are taken from the *Guides to the Evaluation of Permanent Impairment*, Sixth Edition.

This document does not constitute endorsement by the American Medical Association of the methods and procedures described by AAOMS in this "Guidelines to the Evaluation of Impairment of the Oral and Maxillofacial Region" clinical paper.

I. Definitions/Categories[1]

Clarification of the following terms as they relate to impairment is important:

Impairment: A significant deviation, loss, or loss of use of any body structure or body function in an individual with a health condition, disorder or disease.

Disability: Activity limitations and/or participation restrictions in an individual with a health condition, disorder or disease.

Example impairment: Loss of index finger
For a person who is a singer, this in fact would be impairment but not a disability. For an individual who is a typist, this could represent significant disability in his/her work.

Handicap: The Federal Rehabilitation Act of 1973 identifies a "handicapped" individual as one who has an impairment that substantially limits one or more life activities including work, has a record of such impairment, and this impairment can be overcome only by compensation (i.e., artificial limb).

Impairment Rating: Consensus-derived percentage estimate of loss of activity reflecting severity for a given health condition and the degree of associated limitations in terms of activities of daily living (ADL).

Aggravation: A circumstance or event that permanently worsens a preexisting or underlying condition.

Exacerbation does not equal *aggravation*. The terms *exacerbation*, *recurrence* or *flare-up* generally imply worsening of a condition temporarily, which subsequently returns to baseline.

Psychosocial: If indicated, impairment values can be assigned for behavioral or psychosocial problems that are the result of a facial deformity, but it is suggested they be rated by other examiners.

Pain: There is disagreement by experts as to the validity of a pain-related impairment (PRI) and the relationship to whole-person impairment (WPI). The fifth edition of the AMA Guides capped this at 3% WPI. In the sixth edition, the AMA Guides advises examiners to consider congruence with established conditions, consistency over time and situation, consistency with anatomy and physiology, agreement between observers and

inappropriate illness behavior. The sixth edition also recommends that the patient fill out the Pain Disability Questionnaire (PDQ) (Figure 1). The numerical total should then be related to whole-person impairment.

II. How to Perform an Impairment Examination

A generic template for this examination and classification can be found in Table 2.

1. History and review of pertinent medical records.
2. Physical exam or physical findings.
3. Clinical studies or objective test results.
4. Consider permanency of impairment. If impairment is resolving, changing, unstable or expected to change significantly within 12 months, do not give a rating. If condition is not fixed and stable, or if one is making a recommendation for curative (not palliative) treatment, do not give a rating.
5. Consider type of impairment:
    - Range of motion
    - Neurologic (criteria for rating in Tables 7 and 8)
    - Disfigurement (criteria for rating in Table 4)
    - Dietary (criteria for rating in Table 3)
    - Pain (criteria for rating in Figure 2)

III. Evaluation of the Oral and Maxillofacial Region for Permanent Impairment

A. Masticatory Dysfunction

Eating involves the function of the teeth, jaws, muscles of mastication, muscles of deglutition and temporomandibular joint. In addition, it requires the ability of a person through lip, tongue and muscle function to be able to swallow food. Loss or change in the functional relationship of any of these anatomic-physiologic components of the system will result in a functional change for the individual.

Loss of teeth and/or dentoalveolar structure (underlying osseous or soft-tissue structure) may be due to trauma, developmental condition or associated disease (e.g., extractions indicated for radiation therapy in the treatment of primary or metastatic cancers of the head and neck).

There is a distinct and measurable variation between forces generated by natural dentition versus patients with prostheses (full removable dentures). Maximal bite forces appear to be five to six times less for complete denture wearers. In addition, many prosthetic patients select foods that require reduced masticatory capability.

Patients may also develop adverse sequelae with tooth loss, including speech difficulties and associated psychosocial problems secondary to cosmetic changes.

The recommendations in Table 3 are made for determining the impairment rating of the individual loss based on the contribution of each component to the masticatory system.

Dietary Modifications: Many conditions require modifications in diet. The degree to which this is necessary varies from patient to patient, as does the degree to which patients comply with these restrictions. This will add 1-2% impairment to account for the Burden of Treatment Compliance (BOTC).

Speech should not be evaluated by an oral and maxillofacial surgeon. The patient should be referred to a speech pathologist, who will evaluate speech and/or voice impairments together and the whole-person impairment can range from 0% to 35% depending on audibility, intelligibility and functional efficiency.[1]

B. Temporomandibular Joint (TMJ)

Range of motion is used to assess impairment in the maxillofacial region involving the TMJ.

The craniomandibular articulation is composed of the temporomandibular joints bilaterally and the masticatory musculature. These two joints function as a unit.

Total loss of motion, or ankylosis, renders the patient unable to chew or speak in a normal manner.

The following steps and Table 1 are not correlated to the AMA Guides but are suggestions of the AAOMS Committee on Healthcare Policy, Coding and Reimbursement:

Summary of Steps in Evaluation of Impairment of Craniomandibular Articulation

1. Identify the area of involvement.
2. Measure the voluntary, non-painful interincisal opening between maxillary and mandibular central incisors (interincisal range of motion).

    Measure the lateral excursive distance of the mandible, using the dental midlines from maximum dental intercuspation.

3. Add the impairment values for loss of interincisal opening and lateral excursive distance to obtain the craniomandibular articulation impairment value as listed in Table 1.

Impairments secondary to other derangement such as resection, implant arthroplasty, or musculoskeletal disorders are usually rated according to the above criteria. It is left up to the individual examiner whether to consider these disorders separately. The evaluator must use judgment and avoid duplication of impairments.

Hypermobility generally does not impair function and is not ratable. If it appears to cause impairment, it should be treated as a muscle weakness.

C. Skeletal-facial Deformities and Facial Disfigurement

Skeletal-facial deformities of the maxilla and/or mandible can produce abnormal function and appearance. These deformities may arise from multiple genetic factors, environmental influences, acquired defects, neoplastic processes, degenerative disease and trauma.

Documentation of a skeletal-facial deformity should include:

- History to clearly indicate the source of the skeletal-facial deformity (i.e., congenital, developmental or acquired).
- Imaging documentation, when feasible, of the deformity (e.g., post-traumatic defects and/or lateral skull and facial bone X-rays for cephalometric analysis).
- Clinical photographs and/or moulage or dental models.

Impairment evaluation of an individual with a skeletal facial deformity should be based on a combined value score using the Combined Value Calculation Table 1 based on ratable symptoms that are deviations from normal function.

The following conditions (impairments) should be rated separately. Using the Combined Value Calculation Table 1, whole person impairment may then be calculated.

Masticatory Insufficiency: Premature loss of teeth not in functional occlusion as a result of the underlying skeletal deformity.

All teeth missing or not in functional occlusion could be assigned an impairment value of 5% of the dental system for molars and 3% of the dental system for incisors. If the whole-person impairment value based on premature loss of teeth or teeth not in functional occlusion is less than that of a total restriction to liquid diet, the greater value of a whole-person impairment assigning 20-30% loss of whole-person impairment based on a liquid diet should be used.

A person missing all teeth who wears a prosthesis is not usually on a liquid diet. Therefore, the impairment value would be 0-15% for loss of teeth with prosthesis.

Abnormal Respiratory (Airway) Problem: Abnormal respiratory problems are related to the skeletal dental deformity that results in either obstruction, snoring or sleep apnea. A referral for a laboratory sleep study is needed. Abnormal airway problems are usually rated by other examiners.

A patient with skeletal-facial deformities such as vertical maxillary excess and mandibular retrognathia may have upper airway impairment. A sequela of this deformity may be multiple episodes of breathing cessation for at least 10 seconds during periods of sleep. Some signs and symptoms of this syndrome are snoring, abnormal behavior during sleep and interrupted sleep patterns, and excessive daytime somnolence.

Facial Appearance (Disfigurement): Facial appearance is extremely important for identification and self-image. Disturbances in facial appearance or function may also have a major impact on social acceptance. Loss of structural integrity and soft-tissue changes or injury can result in disfigurements that may cause not only physical but social and functional problems as well.

In cases where skeletal-facial defects – as a result of either congenital or developmental deformities, disease, trauma or surgical intervention – result in a permanent disfigurement, the following impairments may be assigned and used with the combined values scale in determining a total value for skeletal-facial deformities.

AAOMS supports the classifications and rating impairment of whole person listed in Table 4.

Cleft Palate Deformity: Cleft palate deformity is a congenital deformity that is amenable to surgical correction and improvement from the time of birth through adolescence and adulthood. The cleft palate patient can be evaluated for impairment value based on skeletal deformity values of:

- Mastication dysfunction/malocclusion
- Articulation
- Temporomandibular joint problems

- Facial appearance
- Psychosocial and/or behavioral problems
- Sleep disorder

Trigeminal Peripheral Nerve: For Trigeminal Nerve, Trigeminal sensory or special sensory loss, impairment classifications are criteria used to rate patients with sensory loss without neuropathic pain. Table 9 describes the Clinical Neruosensory Test (NST) testing and results and interpretation. Table 10 is the Medical Research Council (MRCS) Scale for sensory recovery/loss describing testing and results and interpretation. The Direct Path Survey Sheet (Figure 5) is a patient questionnaire to determine ADL in patients with sensory or special sensory loss only.

Trigeminal Neuropathic Pain impairment classification is criteria used to rate patients with both sensory loss and neuropathic pain. The Numerical Rating Scale (Figure 6) measures the intensity, unpleasantness and ADL associated with pain as well as sensory loss.

Table 1

Combined Value Calculation

INTERINCISAL RANGE OF MOTION		% OF NORMAL WHOLE PERSON	% IMPAIRMENT WHOLE PERSON
Hypomobile	0-10 mm	20	10
Hypomobile	10-20 mm	40	8
Hypomobile	21-29 mm	50	5-7
Hypomobile	30-35 mm	70	3-4
Hypomobile	35-39 mm	95	3-5
Normal	40-50 mm	100	0

35 mm is an acceptable range of jaw opening according to the *Parameters of Care: AAOMS Clinical Practice Guidelines for Oral and Maxillofacial Surgery (AAOMS ParCare)*.[2]

LATERAL EXCURSION RANGE OF MOTION		% OF NORMAL	% IMPAIRMENT OF WHOLE PERSON
Hypomobile	0-4 mm	60	4
Hypomobile	4-7 mm	70	3
Hypomobile	8-10 mm	90	1
Normal	12 mm	100	0

Example: A patient has a noted disc derangement with an incisal opening of 25 mm and lateral excursive movements of 6 mm.

Ratable Criteria:

Interincisal opening	6% impairment
Lateral excursive movement	3% impairment

The two range of motion values are combined together: 6% + 3% = 9% impairment of whole person.

Example: A patient has an ankylosis of the temporomandibular joint with a maximum opening of 5 mm and lateral excursive movements of 2 mm. Diet is restricted to liquid foods.

Ratable Criteria:

Interincisal opening	10% impairment
Lateral excursive movement	4% impairment
Diet restriction	30% impairment

To calculate, use equation A+B (1-A) where A>B, so for this last example it would calculate as follows:

First combining the range of motion values: .10+.04 (1-.10) = .136 ≈14%

Then combine 14% with the diet restriction: .30+.14 (1-.30)=.398 ≈40%

This gives a whole-person impairment of 40% for these three combined criteria.

Table 2

TABLE 1-5 Generic Template for Impairment Classification Grids

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (%)	0	Minimal %	Moderate %	Severe %	Very Severe %
SEVERITY GRADE (%)		(ABCDE)	(ABCDE)	(ABCDE)	(ABCDE)
HISTORY OF CLINICAL PRESENTATION[a]	No current symptoms ***and/or*** intermittent symptoms that do not require treatment	Symptoms controlled with continuous treatment ***or*** intermittent, mild symptoms despite continuous treatment	Constant mild symptoms despite continuous treatment ***or*** intermittent, moderate symptoms despite continuous treatment	Constant moderate symptoms despite continuous treatment ***or*** intermittent, severe symptoms despite continuous treatment	Constant severe symptoms despite continuous treatment ***or*** intermittent extreme symptoms despite continuous treatment
PHYSICAL EXAMINATION OR PHYSICAL FINDINGS[b]	No current signs of disease	Physical findings not present with continuous treatment ***or*** intermittent, mild physical findings	Constant mild physical findings despite continuous treatment ***or*** intermittent moderate findings	Constant moderate physical findings despite continuous treatment ***or*** intermittent severe findings	Constant severe physical findings despite continuous treatment ***or*** intermittent extreme findings
CLINICAL STUDIES OR OBJECTIVE TEST RESULTS[c]	Testing currently normal	Consistently normal with continuous treatment ***or*** intermittent mild abnormalities	Persistent mild abnormalities despite continuous treatment ***or*** intermittent moderate abnormalities	Persistent moderate abnormalities despite continuous treatment ***or*** intermittent severe abnormalities	Persistent severe, abnormalities despite continuous treatment ***or*** intermittent extreme abnormalities

[a, b] Descriptors will be disease-specific; mild, moderate, severe, and extreme need to be defined.

[c] Descriptors will be disease-specific and based on the number of abnormalities found.

The following is used as a grade modifier in the musculoskeletal chapters:

FUNCTIONAL HISTORY[d]	Asymptomatic	Pain/symptoms with strenuous/ vigorous activity; Able to perform self-care activities independently	Pain/symptoms with normal activity; Able to perform self-care activities with modification but unassisted	Pain/symptoms with less than normal activity (minimal); Requires assistance to perform self-care activities	Pain/symptoms at rest; Unable to perform self-care activities

[d] Based on self-report or scores from the PDQ, *Quick*DASH, Lower Limb Outcomes Questionnaire, or other self-report tool.

The following will be added in selected chapters when compliance with treatment minimizes objective evidence of organ dysfunction but results in a significant compromise in ADLs:

BURDEN OF TREATMENT COMPLIANCE[e]	None	Will be based on factors such as number and route of medications taken or the need to regularly undergo diagnostic tests or invasive procedures if ***not*** already considered in the preliminary rating

[e] Based on information in Appendix B; depending on the score, the examiner can opt to add 1 to 3 percentage points.

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 13

Table 3

TABLE 11-7 Impairments of Mastication and Deglutition: Relationship of Dietary Restrictions to Permanent Impairment

Type of Restriction	Impairment of the Whole Person (%)
Diet is limited to semisolid or soft foods[a]	5, 10, 15
Diet is limited to liquid foods[a]	20, 25, 30
Ingestion of food requires tube feeding or gastrostomy	50

[a] The choice of these discrete numbers depends on the range of foods that can be consumed by the individual within the category.

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 269

Figure 1

Administering the Pain Disability Questionnaire (PDQ)

Follow these instructions for administering and scoring the PDQ:

1. Reproduce the PDQ (Appendix 3-1) and ask the patient to complete all items on the questionnaire.
2. If necessary, the patient may complete the form with the assistance of a translator or reader. Be certain all 15 questions are answered. If the patient is unable to complete the PDQ, no functional assessment score will be given.
3. The evaluating doctor will score the PDQ by adding together the marked integer in each question.
4. If the patient fails to mark a question, the default score for that question is 0.
5. Apply the final score to Table 3-1 and consider this in the Steps of Assessment as described in Section 3.3d.

The PDQ scores can be divided into 5 distinct categories: *no disability* (score of 0); *mild* (scores of 1 to 70); *moderate* (scores of 71 to 100); *severe* (scores of 101 to 130); and *extreme* (scores of 131 to 150).

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 44

Table 4

TABLE 11-5 Criteria for Rating Impairment due to Facial Disorders and/or Disfigurement[a]

Facial Disorder/Disfigurement

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
WHOLE PERSON IMPAIRMENT RATING (%)	0	1%–5%	6%–10%	11%–23%	25%–45%
SEVERITY GRADE (%)		1 3 5	6 7 8 9 10	11 14 17 20 23	25 30 35 40 45
HISTORY[b]	Limited cutaneous scarring with no direct physiologic effects	Facial abnormality involving only cutaneous structures with highly visible scar and/or abnormal pigmentation No activities of daily living, including breathing or eating, are affected[a]	Facial abnormality with some loss of supporting structure May have mild obstruction of the nasal passage but no shortness of breath or other clear impairment other than with social interaction	Facial abnormality involves absence of normal anatomic part or area of the face, such as loss of the eye or loss of part of the nose with resulting cosmetic deformity The patient may have some concerns regarding his or her appearance affecting the extent of social activities	Massive or total distortion of normal facial anatomy with severe disfigurement Significant interruption of social activities due to lack of social acceptance
PHYSICAL EXAM	Scar is either small or slightly larger with minimum width, maybe in obvious location, and has no physiologic defects	Significantly visible scar and/or abnormal pigmentation ***or*** mild unilateral total facial paralysis ***or*** nasal distortion that affects physical appearance	Loss of supporting structure of part of the face with or without cutaneous disorder, such as depressed cheek or nasal or frontal bones	Exam consistent with above or severe unilateral total facial paralysis or mild bilateral total facial paralysis ***or*** loss of support tissue affecting multiple facial regions	Findings of the above or severe bilateral total facial paralysis with loss of major portion of or the entire nose ***Move the impairment number up depending on the severity of the facial appearance***
DIAGNOSTIC OR OTHER OBJECTIVE FINDINGS	None	No evidence of involvement of any bony structure or cartilage	May have X rays consistent with changes as noted in history	Consistent with the above findings	Findings consistent with the noted deficit

[a] Any vision loss or losses should be rated in those chapters. Breathing and eating disorders should be rated separately in this chapter and combined. The rater must use caution not to assess the activities of daily living (ADL) impairment in more than 1 section.

[b] Key factor.

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 262

Figure 2

Appendix 3-1 Pain Disability Questionnaire

Patient Name: _____ **Date:** _____

Instructions: These questions ask for your views about how your pain now affects how you function in everyday activities. Please answer every question and mark the ONE number on EACH scale that best describes how you feel.

1. Does your pain interfere with your normal work inside and outside the home?
   Work normally — *Unable to work at all*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

2. Does your pain interfere with personal care (such as washing, dressing, etc.)?
   Take care of myself completely — *Need help with all my personal care*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

3. Does your pain interfere with your traveling?
   Travel anywhere I like — *Only travel to see doctors*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

4. Does your pain affect your ability to sit or stand?
   No problems — *Cannot sit / stand at all*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

5. Does your pain affect your ability to lift overhead, grasp objects, or reach for things?
   No problems — *Cannot do at all*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

6. Does your pain affect your ability to lift objects off the floor, bend, stoop, or squat?
   No problems — *Cannot do at all*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

7. Does your pain affect your ability to walk or run?
   No problems — *Cannot walk / run at all*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

8. Has your income declined since your pain began?
   No decline — *Lost all income*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

9. Do you have to take pain medication every day to control your pain?
   No medication needed — *On pain medication throughout the day*
   0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

10. Does your pain force you to see doctors much more often than before your pain began?
    Never see doctors — *See doctors weekly*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

11. Does your pain interfere with your ability to see the people who are important to you as much as you would like?
    No problem — *Never see them*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

12. Does your pain interfere with recreational activities and hobbies that are important to you?
    No interference — *Total interference*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

13. Do you need the help of your family and friends to complete everyday tasks (including both work outside the home and housework) because of your pain?
    Never need help — *Need help all the time*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

14. Do you now feel more depressed, tense, or anxious than before your pain began?
    No depression / tension — *Severe depression / tension*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

15. Are there emotional problems caused by your pain that interfere with your family, social, and / or work activities?
    No problems — *Severe problems*
    0 -------- 1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

_____
Examiner

Anagnostis C, Gatchel RJ, Mayer TG. The Pain Disability Questionnaire: A New Psychometrically Sound Measure for Chronic Musculoskeletal Disorders. Spine 2004; 29 (20): 2290-2302.

Table 5

Pain-Related Impairment and Whole Person Impairment Based on Pain Disability Questionnaire

Degree of Pain-Related Impairment	Pain Disability Questionnaire Score	Whole Person Impairment (%)
None	0	0
Mild	1–70	0
Moderate	71–100	1
Severe	101–130	2
Extreme	131–150	3

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 40

Table 6

Grading System for Rating Impairment due to Migraine Headache

Migraine Headache

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
History of migraine headache impairment despite optimal medical management. Headaches have reached a period of maximum medical improvement.					
MIDAS SCORE (SEE TEXT)	**0**	**1–5**	**6–10**	**11–20**	**21+**
DESCRIPTION	No migraine headaches	Minimal or infrequent disability	Mild or infrequent disability	Moderate disability	Severe disability
WHOLE PERSON IMPAIRMENT RATING (%)	**0%**	**2%**	**3%**	**4%**	**5%**

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 342

Table 7

Criteria for Rating Trigeminal or Glossopharyngeal Neuralgia

Trigeminal or Glossopharyngeal Neuralgia

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3
History of trigeminal or glossopharyngeal neuralgia with impairment despite optimal medical management. Headaches have reached a period of maximal medical improvement.				
WHOLE PERSON IMPAIRMENT RATING (%)	0%	1%–2%	3%–5%	6%–10%
DESCRIPTION	No neuralgia	Mild uncontrolled facial neuralgic pain that may interfere with ADLs or mild motor loss	Moderately severe, uncontrolled facial neuralgic pain that interferes with ADLs or moderate motor loss	Severe, uncontrolled, unilateral or bilateral facial neuralgic pain that prevents performance of ADLs or severe motor loss

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 343

Table 8

Criteria for Rating Miscellaneous Peripheral Nerves

Miscellaneous Peripheral Nerves

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3
WHOLE PERSON IMPAIRMENT RATING (%)	0%	1%	2%–3%	4%–5%
GREATER OCCIPITAL NERVE **LESSER OCCIPITAL NERVE** **GREATER AURICULAR NERVE** **INTERCOSTAL NERVE** **GENITOFEMORAL** **ILIOINGUINAL** **ILIOHYPOGASTRIC** **PUDENDAL**	No neuralgia	Sensory loss only in an anatomic distribution	Mild to moderate neurogenic pain in an anatomic distribution	Severe neurogenic pain in an anatomic distribution

Rondinelli, Robert D, ed, *Guides to the Evaluation of Permanent Impairment*, Chicago, IL, American Medical Association, 2008; 344

Figure 3

Report of Medical Evaluation Permanent Medical Impairment

To _____

Re _____

Case # _____

Date of Impairment _____

1. Past Medical History **Yes / No**

A. Medical Office Records Reviewed Enclosed

_____

B. Hospital Record Reviewed Enclosed

_____

C. From Patient

_____

D. From Other Sources (Describe)

_____

2. Clinical Evaluation **Yes / No**

A. Physical Examination Report Enclosed

B. Laboratory Tests Report Enclosed

C. Special Tests and Diagnostic Procedures Report Enclosed

D. Specialty Evaluations Report Enclosed

3. Diagnosis

A. _____

B. _____

C. _____

D. _____

4. Stability of Medical Condition

A. The clinical condition is stabilized and not likely to improve with surgical intervention or active medical treatment. Medical maintenance care is warranted.

Yes / No

B. The degree of whole-person impairment is not likely to change by more than 3% within the next year.

Yes / No

C. Employment is not likely to improve with surgical intervention or active medical treatment.

Yes / No

D. The patient is **not** likely to suffer sudden or subtle incapacitation.

Yes / No

5. Other Analyses

A. Explain briefly the impact(s) of the medical condition(s) on the patient's activities of daily living:

_____

_____

_____

_____

_____

_____

B. Is there a medical reason to believe the patient is likely to suffer injury, harm or further medical impairment by engaging in usual activities of daily living or other activities necessary to meet personal, social or occupational demands? Explain briefly.

Yes / No

_____

_____

_____

C. Is there a medical reason to believe other restrictions or accommodations are necessary to help the patient carry out usual activities of daily living or meet personal, social and occupational demands? If so, briefly explain his/her therapeutic, risk-avoidance or other kind of value.

Yes / No

6. Important Evaluations (According to AMA Guides)

Attach a complete report of findings and narrative comments for each body part or system.

Bony Part or System:

A. _____ (Report Enclosed)

B. _____ (Report Enclosed)

C. _____ (Report Enclosed)

D. _____ (Report Enclosed)

☐ **This patient has been under my care from ___/___/___ to ___/___/___**

☐ **I have not provided care for this patient. I have seen this patient ____ time(s) for the purpose of evaluating medical impairment. My evaluation occurred between ___/___/___ and ___/___/___**

Signature _____

Print Name _____

Table 9

Clinical Neurosensory Test (NST) for Trigeminal Neuropathy

	Level A Direction sensitivity <90% Static two-point discrimination <18mm	Level B Contact Detection < 2.83	Level C Heat temperature threshold<47 Heat Temperature tolerance <50 Pressure pain threshold<1.5lb Pressure pain tolerance <2.0 lb
Normal	*present	present	present
Mild	*failed	present	present
Moderate	failed	failed	present
Severe	failed	failed	*elevated
Complete	failed	failed	*absent

*present – values recorded at test and control sites exhibit comparable sensitivity within published normative range

*failed – values recorded at test site sensitivity are less than that of control sites or published normative range

*elevated – values recorded at test site sensitivity are greater than that of control sites or published normative range but below maximum of test device (i.e., 6.00 lbs)

*absent – values recorded at test site sensitivity are greater that maximum of test device (i.e., 6.00 lbs)

Table 10

Grade of sensory recovery	Clinical examination results
S_0	No sensory recovery in the autonomous zone of nerve
S_1	Recovery of deep cutaneous pain sensibility in autonomous zone of nerve
S_2	Recovery of superficial cutaneous pain sensibility
S_{2+}	Similar to S2 only with some touch sensibility
S_3	Recovery of pain and touch sensibility with disappearance of over response, two-point discrimination > 15 mm
S_{3+}	Similar to S3 only with good localization of stimulation, 7 mm <two-point discrimination < 15 mm
S_4	Complete recovery, two-point discrimination <7 mm

MRCS: Medical research council scale

Figure 5

DIRECT PATH

Instructions: Some patients may experience unusual or altered feelings or sensations on their face or mouth. These Changes may cause problems that doctors need to know about. FILL IN THE CIRCLE COMPLETELY that best describes how much of a PROBLEM each item has been for you in the PAST WEEK.

		No Problem		Somewhat of a Problem				Serious Problem
a.	Drooling (with or without knowing it)	○	○	○	○	○	○	○
b.	Food particles (crumbs) on chin or mouth without knowing it	○	○	○	○	○	○	○
c.	Leftover food in cheeks	○	○	○	○	○	○	○
d.	Unusual feeling to your face or mouth	○	○	○	○	○	○	○
e.	I can't tell how my smile (mouth) looks without looking in a mirror	○	○	○	○	○	○	○
f.	My lips feel less sensitive to touch (e.g., using straw, kissing)	○	○	○	○	○	○	○
g.	Lost or decreased ability to taste	○	○	○	○	○	○	○
h.	Numbness in facial area or around mouth	○	○	○	○	○	○	○
i.	Ability to bite into foods	○	○	○	○	○	○	○
j.	Speaking ability	○	○	○	○	○	○	○
k.	Pain in facial area	○	○	○	○	○	○	○
l.	Swelling in facial area or around mouth	○	○	○	○	○	○	○
m.	Ability to chew foods	○	○	○	○	○	○	○
n.	Pain inside mouth	○	○	○	○	○	○	○

Figure 6

NUMERICAL RATING SCALE

Directions: Please rate the intensity, unpleasantness and the interference in daily activities that pain or the sensations on your face have caused in the past week. To help you decide how these aspect of pain or the altered sensations affect you, imagine the following:

You are in a closed room listening to music. The volume of the music is the ***intensity*** of the sound. The obtrusiveness (i.e., how annoying the music is) is the ***unpleasantness*** of the music. How much the music inhibits or causes difficulty in performing everyday activities and functions is the ***interference*** caused by the music.

PAIN: Please completely fill in the circle beside the number that best describes each aspect of the WORST pain you've experienced on your face in the past week.

Pain Intensity:	No Pain ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	As intense as you can imagine ○ 10
Unpleasantness of Pain:	Not Unpleasant ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	Most unpleasant imaginable ○ 10
Interference Caused by Pain:											
In Eating:	No Trouble ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	As much trouble as you can imagine ○ 10
In Other Facial Activities (e.g., smiling, kissing, shaving):	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10
In Mood:	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10
In Relations With Other People:	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10

ALTERED SENSATION: Please completely fill in the circle beside the number that best describes each aspect of the WORST altered sensation you've experienced on your face in the past week.

Altered Sensation Intensity:	No Altered Sensation ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	As intense as you can imagine ○ 10
Unpleasantness of Altered Sensation:	Not Unpleasant ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	Most unpleasant imaginable ○ 10
Interference Caused by Pain:											
In Eating:	No Trouble ○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	As much trouble as you can imagine ○ 10
In Other Facial Activities (e.g., smiling, kissing, shaving):	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10
In Mood:	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10
In Relations With Other People:	○ 0	○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7	○ 8	○ 9	○ 10

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