

## HEARING LOSS PROTOCOL

### I. INTRODUCTION

Hearing loss related to injury sustained in the workplace is of two general types:

- 1) Acuity hearing loss related to a single event – usually trauma (ex: in association with a basal skull fracture) or by other mechanism.
- 2) Occupational hearing disorder, generally related to chronic exposure to excessive noise in the workplace, resulting in nerve(s) injury. This condition is usually bilateral and is almost always less than total. Occupational hearing loss is generally a loss in the 4,000-6,000 Hz range; however, it can, at times, affect the lower frequencies.

### II. DETERMINATION OF THE EXTENT OF AND THE CAUSE(S) OF HEARING LOSS FOR THE PURPOSE OF COMPENSATION FOR THE INJURY(IES) SUSTAINED

- 1) The patient will be examined by a Board Certified Otolaryngologist to determine the cause(s) of the hearing loss and the extent of that loss. The physician will determine if hearing loss has occurred as well as the extent of the loss in each ear. The physician will determine the relationship of the hearing loss to the workplace injury and will determine, if possible, the coexistence of other processes that may have antedated the injury(ies) in the workplace.
- 2) An Audiometric Study will be performed after maximum rehabilitation has been achieved and when the impairment is judged to be stable (neither improvement nor progression). Audiometric Testing for the purpose of determining the degree of hearing impairment will not be performed before 4 to 6 weeks following acoustic injury.
- 3) Testing will be performed without the use of prosthetic devices (Hearing Aids).
- 4) Audiometric Testing will be performed by a Certified Audiologist or Board Certified Otolaryngologist. Decibels of hearing loss will be determined (for each ear) as frequencies (measured in cycles/sec-Hz) of 500, 1,000, 2,000, 3,000, 4,000, and 6,000 Hz.

### III. HEARING LOSS AT A LEVEL 3,000 Hz. OR LESS

- a) Evaluation of Monaural Hearing Impairment: If the average of the hearing levels at 500, 1,000, 2,000 and 3,000 Hz. is 25 decibels or less, according to ANSI Standards, no impairment is considered to exist in the ability to hear everyday sounds under everyday listening conditions (See Table I).

At the other extreme, if the average of the hearing levels at 500, 1,000, 2,000 and 3,000 Hz is over 91.7 decibels, the impairment of hearing everyday speech is considered to be “total” – that is 100%. Variable degrees of monaural hearing loss will be determined by computation (see Table I – in JAMA – “Guides to the Evaluation of Permanent Impairment”). \*\*

b) Evaluation of Binaural Hearing Impairment: The evaluation of Binaural Hearing Impairment in adults is also derived from the pure tone audiogram and is always based on the function of both ears.

Binaural impairment is determined by the following formula (See “Guides”). Percent of hearing impairment equals five times the percent of hearing impairment in the better ear “+” percent of hearing impairment in the poorer ear divided by six (See Table 2 of the “Guides”). To convert binaural hearing impairment to impairment of the whole person, one would utilize Table 3 of the “Guides”.

#### IV. HEARING LOSS AT A LEVEL GREATER THAN 3,000 Hz

Hearing loss at a level greater than 3,000 Hz generally does not affect the workers’ ability to function in the workplace (speech, telephone, etc.). Therefore, hearing loss at this level is not addressed in the AMA Guides to the Evaluation of Permanent Impairment. These losses should be classified by a Board Certified Otolaryngologist or Certified Audiologist as mild, moderate, severe or profound.

\*\* Information concerning the mechanism of determination of extent of hearing loss in relationship to workplace injury has been derived from information provided by the JAMA Guides to the Evaluation of Permanent Impairment of Hearing (Pages 922-925 in section labeled Ear, Nose, and Throat and related structures).

#### PROTOCOL HISTORY:

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