

# DuPage County Environmental, Safety, Health & Property Loss Control Program

## Hearing Conservation

---

**Purpose:** To ensure that DuPage County employees are protected from exposure to noise in excess of established limits. Explain the requirements for use of hearing protection equipment, base line audiograms, training, noise dosimetry, and periodic sound level measurements.

**Policy:** The requirements of this procedure will be applied to prevent the unsafe exposure of employees to excessive noise levels. Requirements to wear hearing protection in high noise areas will be strictly enforced. Requests by employees for hearing protection in areas not designated as excessive noise areas will be accommodated.

**Definitions:** Time Weighted Average (TWA): The average exposure to a contaminant or condition (such as noise) to which workers may be exposed without adverse effect over a period such as in an 8-hour day.

Decibels: The intensity of sound is measured in a unit called the decibel (dB), which describes the relative intensity of a sound based on an algorithmic decibel scale containing values ranging from 0 to 194.

### What can cause hearing loss?

Job related hearing loss can occur because of overexposure to consistent high noise levels at work. Noise is measured in units called “decibels” (db). The higher the decibels, the louder the noise. Some examples of various noise levels:

- 20 db Whispers or rustling leaves
- 40 db Library
- 60 db Typical office conversation
- 80 db Garbage disposal or dishwasher
- 90 db Food blender or busy street
- 100 db Jackhammer, lawn mower or outboard motor
- 120 db Live rock music or a chainsaw
- 140 db Jet engine

### Monitoring:

At any time operations change substantially enough to increase the level of noise in work areas, monitoring shall be conducted to determine if the exposure exceeds an 8-hour time weighted average (TWA) of 85 decibels.

### Employee Notification:

DuPage County shall notify each employee in writing if exposed at or above the 8-hour (TWA) of 85 decibels of the results of the monitoring.

DuPage County shall also allow any employee to observe any noise measurements conducted in an area where they may be affected.

## **DuPage County Environmental, Safety, Health & Property Loss Control Program Hearing Conservation**

---

### **Audiometric Testing Program:**

DuPage County will establish and maintain an audiometric testing program for all employees whose exposures equal or exceed the 8-hour (TWA) of 85 decibels.

All audiometric testing shall be performed by a licensed or certified audiologist, otolaryngologist, physician, or technician trained in conducting audiometric testing.

### **Baseline Audiograms:**

Baseline audiograms shall be conducted within 6 months of an employee's first exposure at or above the 8-hour action level of 85 decibels.

- All testing to establish a baseline audiogram shall be after at least 14 hours without work place noise.
- Audiograms should be scheduled for any day following a day off, if at all possible.
- If such scheduling is not possible, hearing protectors may be used as a substitute for the 14 hour avoidance of work place noise.

### **Annual Audiograms:**

Each employee exposed at or above the 8-hour (TWA) action level of 85 decibels shall receive an annual audiogram.

Audio grams must be conducted by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used. A technician who operates microprocessor audiometers does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

If the annual audiogram indicates a standard threshold has occurred, DuPage County shall take the following actions:

- Notify the affected employee in writing within 21 days of the determination that a standard threshold shift has occurred.
- Employees not currently using hearing protectors shall be provided with, and trained in the use of hearing protectors; and required to use them.
- Employees already using hearing protectors shall be retrained in the use of hearing protectors.

## DuPage County Environmental, Safety, Health & Property Loss Control Program Hearing Conservation

---

### **Hearing Protectors:**

Hearing protection will be provided to all DuPage County personnel at no cost to the employee, including optional hearing protectors requested by an employee.

Use of hearing protectors shall be either optional or mandatory as defined below:

### **Optional Protection:**

Hearing protectors will be made available to all DuPage County employees exposed to an 8-hour (TWA) of more than 85 decibels but less than 90 decibels, and is optional.

Hearing protectors will be made available to any DuPage County employee that requests them, irrespective of the (TWA).

### **Mandatory Protection:**

- Hearing protection **MUST** be worn by any DuPage County employee exposed to an 8-hour (TWA) of 90 decibels or greater.
- Hearing protection **MUST** be worn by any employee who is exposed to an 8-hour (TWA) of 85 decibels or greater and who has experienced a standard threshold shift in hearing.
- Hearing protection **MUST** be worn by any employee who is exposed to an 8-hour (TWA) of 85 decibels or greater and who has not yet received a baseline audiogram.
- Hearing protection **MUST** be worn by any employee using a “leaf blower”, chain saw or table saw.
- Hearing protection **MUST** be worn by any employee working near a wood shredder / chipper.

### **Training:**

DuPage County will provide training to all of its employees that are exposed to noise levels at or above an 8-hour time weighted average (TWA) of 85 decibels.

The training shall include the following information:

- Disadvantages of hearing protectors
- Attenuation of different types
- Selection of hearing protectors
- Fitting of hearing protectors
- Use & care of hearing protectors
- Explanation & Purpose Of Audiometric Testing
- The Existence and Location of the OSHA Standard,
- "Occupationnel Noise Exposure" 29 CFR 1910.95

Records of training will be maintained with the employee’s audiometric test records in the employee’s Human Resources record file.

## DuPage County Environmental, Safety, Health & Property Loss Control Program Hearing Conservation

---

### **Recordkeeping:**

DuPage County will maintain accurate records and files of all employee exposure measurements and area sampling results.

DuPage County will maintain all employee audiometric test records for the duration of employment and noise exposure records for two (2) years.

All audiometric test records must contain the following information:

- Name & job classification of the employee
- Date of the audiogram
- The examiner's name
- Date of the last calibration of the audiometer
- The date of the employee's most recent noise exposure assessment.
- Measurement of background sound pressure levels in the audiometric test room.