

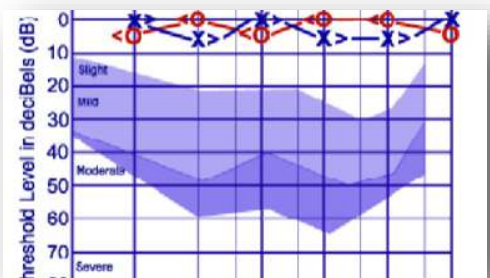
# Safe Audiograms

## Why and What They Do

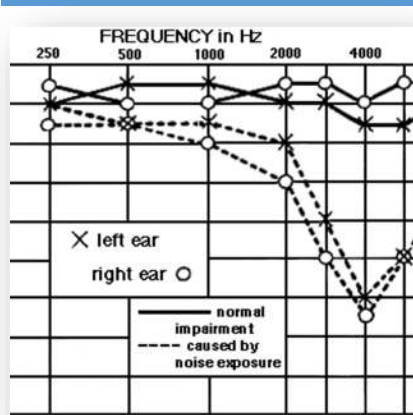
Audiometric testing monitors an employee's hearing over time. It also provides an opportunity to educate employees about their hearing and the need to protect it. The important elements of a hearing conservation program are baseline audiograms, annual audiograms, training, and follow-up procedures. Employers must make audiometric testing available at no cost to all employees who are exposed to a noise action level of 85 decibels (dB) or greater, measured as an 8-hour time-weighted average (TWA). The audiometric testing program should indicate whether the employer's hearing conservation program is preventing hearing loss. A licensed or certified audiologist, otolaryngologist, or other physician is responsible for the program.

### WHAT IS A BASELINE AUDIOGRAM?

The baseline audiogram is a reference against which future audiograms are compared. Employers must provide baseline audiograms within 6 months of an employee's first exposure at or above an 8-hour TWA of 85 dB. Employees are tested for their ability to hear a pure tone sound at 500, 1,000, 2,000, 3,000, 4,000 and 6,000 Hertz. The audiogram to the right illustrates healthy ears with little loss of hearing. (Left ear — blue; Right ear—red). The shaded section shows areas of hearing loss.



### WHAT ARE ANNUAL AUDIOGRAMS?



Employers must provide annual audiograms within 1 year of the baseline. It is important to test hearing annually to identify deterioration in hearing ability as early as possible. This enables employers to initiate protective measures before hearing loss progresses. Employers must compare annual audiograms to baseline audiograms to determine whether the audiogram is valid and whether the employee has lost hearing ability or experienced a standard threshold shift (STS). An STS is an average shift in either ear of 10 dB or more at 2,000, 3,000, and 4,000 hertz. The audiogram to the right illustrates typical noise induced hearing loss. The black line is the baseline and the dashed line is the annual audiogram, showing substantial loss in both ears.

### WHAT IS THE EMPLOYER REQUIRED TO DO?

The employer must fit or refit any employee showing an STS with adequate hearing protectors, show the employee how to use them, and require the employee to wear them. The employer may substitute an annual audiogram for the original baseline audiogram if the professional supervising the audiometric program determines that the employee's STS is persistent. The employer must retain the original baseline audiogram, however, for the length of the employee's employment. This substitution will ensure that the same shift is not repeatedly identified.