

RESHOLD LEVEL  
20  
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# The THRESHOLD

A T K GROUP PUBLICATION DEVOTED TO OCCUPATIONAL HEARING LOSS PREVENTION AND PROGRAM MANAGEMENT

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## Single Day Exposure To 85 dB 8 Hr. TWA Requires Inclusion To The HLPP

T K Group is often asked if “office” workers who have only occasional exposure to workplace noise at or above 85 dB (8 hour TWA) require inclusion to the Hearing Loss Prevention Program (HLPP).

In a 2004 Interpretation, OSHA affirmed that workers with even one exposure to 85 dB (8 hour TWA) in a year’s time fall under the noise regulation and thus must be included in the HLPP. If a worker goes an entire year without one single 85 dB exposure, that worker may be removed from the HLPP.

If such “occasionally exposed” workers sustain a 10 dB Standard Threshold Shift (STS), they must still receive all necessary and mandated follow-up actions associated with CFR 1910.95 (i.e. 21-day written notification of the shift event, supplemental Hearing Loss Prevention training, hearing protector check/refit, and mandatory use of hearing protection). Similarly, workers in this noise exposure classification require determination of

work relatedness if the 10 dB STS reaches a potentially Recordable level of loss as defined by CFR 1904.

While cost concerns confront all corporations these days, inclusion of all employees to a HLPP is beneficial on many levels.

Annual testing to non-noise exposed employees may identify non-noise related pathologies. Additionally, HLPP inclusion of non-noise exposed employees helps to reinforce the significance of the HLPP in the minds of those that are noise exposed.

Lastly, many non-noise exposed persons participate in noisy activities off the job and annual Hearing Loss Prevention Training certainly may prevent non-work related noise induced hearing loss.

## Organic Solvents and Hearing Loss

It has long been suspected that chronic exposure to industrial organic solvents likely induces hearing loss. Besides solvents, numerous studies suggest that other types of chemical pesticides, metals, and asphxiants also induce hearing loss.

A recent study entitled *Peripheral and Central Auditory Dysfunction Induced by Occupational Exposure to Organic Solvents* (Fuente, Slade, Taylor, Morata, Keith, Sparer, and Rabinowitz) seems to reinforce the theory that solvents damage certain locations of the auditory system.

The authors of this study report that solvent induced hearing loss (SIHL) is thought to affect mid to high frequency regions of the cochlea. Additionally, the authors suggest that higher level central auditory sites may also be damaged by solvents leading to Central Auditory Dysfunction.

Not only may these chemicals induce hearing loss, but they may also add to the severity of noise induced hearing loss in a synergistic manner.

## Study: Prevalence Of NIHL Greater In Men; Race and Marital Status Linked

At a recent 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation conference, physicians reported a study to suggest that men are nearly three times as likely to sustain noise induced hearing loss than women.

The study looked at just over 5000 audiograms on persons between 20 and 69 years of age. Interestingly, the analysis of this data found that 13% of audiograms demonstrated noise induced characteristics. The 13% figure corresponds to previously published estimates to suggest that 24 million Americans suffer from noise induced hearing loss.

Perhaps even more compelling is the suggestion that caucasian and married men pose greater risk of noise induced hearing loss.

To the best of our knowledge, the study does not attempt to suggest exactly why caucasian and married men indicate higher prevalence of noise induced hearing loss. Additionally, we do not know if this database was evenly distributed across geographic areas, if these persons worked in noise exposed jobs. or if off the job noise exposure activity was considered.

The suggested correlation to marriage offers much room for speculation. Do white married men have greater participation in off the job noisy hobbies? Maybe. Are white married men exposed to higher levels of occupational noise over that of African Americans and Hispanics? Doubtful. Is there a socioeconomic correlation to both occupationally and non-occupationally related noise exposures? Possibly.

Confused? We are too.

## Best Practice: Don't Let Months Go By Before Addressing And Logging OSHA Recordable Shift Events

CFR 1904 (Recording Occupational Illnesses and Injuries) requires that you post OSHA Recordable hearing loss events to the OSHA 300 Log no later than 7 calendar days after receiving official notification of that shift event. You are not, however, required to post that event to the OSHA log if a retest will be attempted within 30 days of the initial shift event.

While OSHA's official stance is that the 7 calendar day posting window begins on the date of the confirming retest, companies that rely on a vendor for analysis do not have immediate analysis on the day of the retest and must wait a short period of time to receive a report (whether on paper, disk, or internet-based reporting) notifying them of a persistent shift event; as such, it is not unreasonable for applicable companies to consider the 7 calendar day period to initiate upon official notification of shift persistency. If, for example, you utilize our web-based reporting portal MYTK Group, the 7 day reporting window initiates once you read the

email notifying you that data is posted to the portal for your review.

While you may request a Work Relatedness Determination anytime after the shift event, it is best practice to submit an Extended Questionnaire (EQ) to T K Group immediately after official notification of shift persistency.

If you opt not to obtain a retest or for whatever reason a scheduled retest was not obtained, it is best practice to submit an EQ no later than a month after the initial shift event; in such cases, be sure that you entered the event to the OSHA 300 Log within 37 days of the date of the initial shift event. If the shift event is later deemed non-occupationally related by determination, you may then line that event off the log.

What you do not want to do, however, is fail to post a potentially Recordable event to the log and/or request a determination of the event months and months later.

If you are new to T K Group, or if you are simply interested in receiving email notification of new newsletter postings, please email [robertwilliams@tkontheweb.com](mailto:robertwilliams@tkontheweb.com) and type "Add to Newsletter" in the subject line.

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The Threshold is written by Robert Williams, A.u.D.

# T K Group Responds To GINA

On May 21, 2008, President George W. Bush signed into the law the Genetic Information and Nondiscrimination Act (GINA) of 2008. GINA, which took effect November 21, 2009, prohibits health insurance coverage discrimination and job discrimination based on genetic information.

GINA sets out to prevent health insurers and/or health plan administrators from requesting or requiring an individual's genetic information or that of a family member for use in determining coverage, rates, or preexisting conditions. *GINA also prohibits employers from requesting genetic information for use in hiring, firing, promotion, demotion, or specific job placement.*

Prior to GINA, the T K Group test form used for annual hearing testing contained the question "Family Hearing Loss". As of November of 2009, that question was removed from all T K Group forms and questionnaires in response to GINA.

All T K Group test forms are located on our website for download at <http://www.tkontheweb.com/tkforms.htm>



President George W. Bush signs H.R. 493, the Genetic Information Nondiscrimination Act of 2008, Wednesday, May 21, 2008, in the Oval Office. White House photo by Eric Draper.

Photo courtesy of genome.gov

(Check one) <input type="checkbox"/> Baseline <input type="checkbox"/> Annual <input type="checkbox"/> STS Retest <input type="checkbox"/> Other _____		COMPANY _____	DIVISION _____
TECHNICIANS USE ONLY STATION _____		LOCATION _____	
		PLANT _____	
SS # OR EMPL ID # _____		*NAME _____	
(Use Company Authorized Identifier)		LAST _____	FIRST _____
		INITIAL _____	
SEX _____		DATE OF BIRTH _____	DATE OF HIRE _____
		DEPT. _____	
		*JOB _____	
		SHIFT _____	*NOISE LEVEL _____
		HP REQUIRED? _____	
Update Otologic History CIRCLE ALL THAT APPLY. ALSO PLEASE INDICATE NEXT TO THE APPROPRIATE ITEM, ONE OF THE FOLLOWING: R = RIGHT, L = LEFT B = BOTH, U = UNKNOWN		IMPORTANT FOR COMPANY: Please fill out all information above heavy black lines in advance of mobile unit arrival. Hold this form for distribution to employees immediately prior to test. For test done in house or at local clinic, keep original for your files and make photocopy to send to T K Group for processing.	
In the last twelve months:		* THIS INFORMATION IS REQUIRED BY OSHA.	
In your lifetime:		COMMENTS:	
Miscellaneous:		_____	
10 EAR PAIN	20 SEEN MD FOR EARS	31 ALLERGIES	_____
11 DRAINING EAR	21 EAR SURGERY	33 HIGH NOISE PRIOR TO HEARING TEST	_____
12 DIZZINESS/IMBALANCE	22 UNCONSCIOUSNESS	34 NO HEARING PROTECTION PRIOR TO HEARING TEST	_____
13 SEVERE RINGING IN EARS	23 WEARS HEARING AID	35 HEAD COLD TODAY	_____
14 SUDDEN HEARING LOSS	24 MUMPS	36 MILITARY SERVICE	_____
15 FLUCTUATING LOSS	25 SCARLET FEVER	37 NOISY HOBBIES	_____
16 FULLNESS/DISCOMFORT	26 MEASLES	38 LOUD MUSIC/HEADPHONES	_____
17 HEARING PROTECTION DEVICE PROBLEMS	27 MENINGITIS	39 FIREARMS/GUNS	_____
18 PRESCRIPTION DRUGS	28 DIABETES		_____
19 HIGH BLOOD PRESSURE	29 KIDNEY DISEASE		_____
WHEN WORKING IN HIGH NOISE AREA, DO YOU WEAR HEARING PROTECTION? YES <input type="checkbox"/> NO <input type="checkbox"/>		Employee Signature _____ Date _____	
(EXPLAIN CIRCLED ITEMS UNDER "COMMENTS")		T K GROUP, INC. HEARING CONSERVATION DIVISION 1781 S. BELL SCHOOL ROAD CHERRY VALLEY, IL 61016 815-332-3460 (Phone) 815-332-5175 (Fax)	