

Now Hear This...

Volume 4, No. 1

Spring 2001



Mark Your Calendar

**Michigan Speech and Hearing
Association (MSHA)
Work-Related Noise Induced
Hearing Loss Seminar**

**Hyatt Regency Hotel
Dearborn, Michigan
Friday, March 23, 2001
8:30 - 11:30 AM**

Kenneth D. Rosenman, M.D. and Mary Jo Reilly, M.S., Department of Medicine, Michigan State University will moderate.

Presenters: Lee D. Hager, Executive Vice President at James, Anderson & Associates, a major consultant to companies on hearing conservation; Lisa Murray-Johnson, Doctoral Student, Department of Communication, Michigan State University; and Mark R. Stephenson, Ph.D., Research Audiologist in the Bioacoustics and Occupational Vibration Section at the National Institute for Occupational Safety & Health (NIOSH).

Lee Hager will discuss the issues related to controlling noise at work including the components of an effective Hearing Conservation Program; Lisa Murray-Johnson will discuss ways to motivate noise-exposed workers to become actively involved in preserving their hearing; and Dr. Stephenson will discuss the key elements of the new NIOSH document entitled *Criteria for a Recommended Standard*.

New and Improved Ways to Report Known or Suspected Occupational NIHL

As technology abounds, we have been striving to take advantage of the internet connection thereby making occupational disease reporting easier for Michigan health care providers. We have been successful in creating a *secure* web site to accept on-line reporting and have established a new e-mail address strictly dedicated to the reporting of all occupational disease. If you want to report on-line, go to our web site and click on 'Submit Occupational Disease Report'.

Please see box below for various ways to report Known or Suspected Occupational NIHL. If you have any questions about Michigan's reporting law or the routes of reporting, please call 1-800-446-7805 or e-mail ODREPORT@ht.msu.edu

Michigan Law Requires the Reporting of Known or Suspected Occupational NIHL

Reporting can be done by:

FAX (517) 432-3606

Telephone 1-800-446-7805

E-Mail ODREPORT@ht.msu.edu

Web www.chm.msu.edu/oem/index.htm

Mail MDCIS Occ. Health Division

PO Box 30649

Lansing, MI 48909-8149

New NIOSH Initiative on Identifying Effective Hearing Loss Prevention Strategies

The National Institute for Occupational Safety and Health (NIOSH) has proposed a new initiative on work-related hearing research/activity. The initiative includes six projects:

(1) Development of software for tracking noise exposure and audiometry data.

The proposed project will develop methods to collect both noise and hearing data, including interview and audiometric data. The software will be used in the planned NIOSH National Hazards Survey and other NIOSH surveys and studies. Additionally, private companies with hearing conservation programs will be encouraged to use the new software. The use of a single software that includes both relevant noise and hearing data will allow comparisons across industries and studies to evaluate the occurrence of noise induced hearing loss.

(2) Assessment of state of the art of noise controls measures for the construction and mining industry.

This project will record the circumstances and effectiveness of noise control technologies in common use and areas where there are gaps in noise control either because available engineering noise control is not being used or future development of controls is needed. Where gaps are noted, barriers to the use of effective noise-control technologies will be identified.

(3) Dissemination on noise control to small construction and mining businesses.

Web-based, small business oriented material will be developed for both noise control and hearing loss prevention guidelines. This web-based material will be developed after assessing the needs of the small business community and using the information generated in the preceding state of the art noise control project.

(4) Development and evaluation of interventions for individuals with hearing impairment who work in noise exposed areas.

This project will assess the impact of ongoing noise exposure on workers' ability to safely perform their job among workers who already have hearing loss. Specifically, it will evaluate communication needs, ability to process signals in noise, hearing protection requirements and the need for other accommodations among hearing impaired workers in noisy jobs. Guidelines will be developed for use by employers and governmental agencies to allow hearing-impaired workers to continue to perform their jobs safely without additional hearing loss.

(5) Evaluation of the exposure-response relationship between different noise measurements and hearing loss.

Existing noise exposure measurements may not adequately measure the true risk of hearing loss. To address this potential problem, this project will incorporate measures for impulse noise into measures of continuous noise. Also to evaluate measurement errors in daily time weight averages, this project will conduct side by side evaluations of personal dosimetry and task-based sampling, as well as repeated noise sampling on individual workers to measure the imprecision of sampling on just one shift.

(6) Assessment of the relationship between noise exposure and high blood pressure.

In addition to hearing loss, there have been repeated studies performed on the non-auditory effects of noise. This project will further elucidate the previously reported association between noise exposure and high blood pressure. Using ambulatory blood pressure monitoring the project will assess the association between noise and markers of stress (cortisol levels) and determine the relative importance of impulse versus continuous noise on blood pressure changes.

The above projects are a combination of applied research and educational efforts to reduce the occurrence of work-related noise associated disease. They represent important issues that need to be addressed in relation to work-related noise exposure. A number of the projects are planned to be conducted in Michigan and involve Michigan practitioners. A final decision on whether these proposed projects will be initiated will be determined later this year.

New Developments

We are developing a one-page fact sheet to hand out to patients where you think that exposure to noise at work has been a significant contributor to the patient's hearing loss.

The fact sheet will discuss potential treatment/management options and the State's interest in receiving a report on patients where work-related noise is a significant contributor to hearing loss.

If you would be interested in having such a fact sheet to hand out to your patients with work-related noise induced hearing loss, please call us at 1-800-446-7805 or email us at Rosenman@msu.edu

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comments are welcome.

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Suggested Criteria for Reporting Occupational NIHL

1. A history of significant exposure to
noise at work; AND
2. A STS of 10dB or more in either ear
at an average of 2000, 3000 & 4000 Hz.
OR
3. A fixed loss.*

*Suggested definitions: a 25dB or
greater loss in either ear at an average
of: 500, 1000 & 2000 Hz; or 1000,
2000 & 3000 Hz; or 3000, 4000 &
6000 Hz; or a 15dB or greater loss in
either ear at an average of 3000 & 4000
Hz.

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**In this issue: New NIOSH Initiatives on Identifying
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