

Now Hear This...

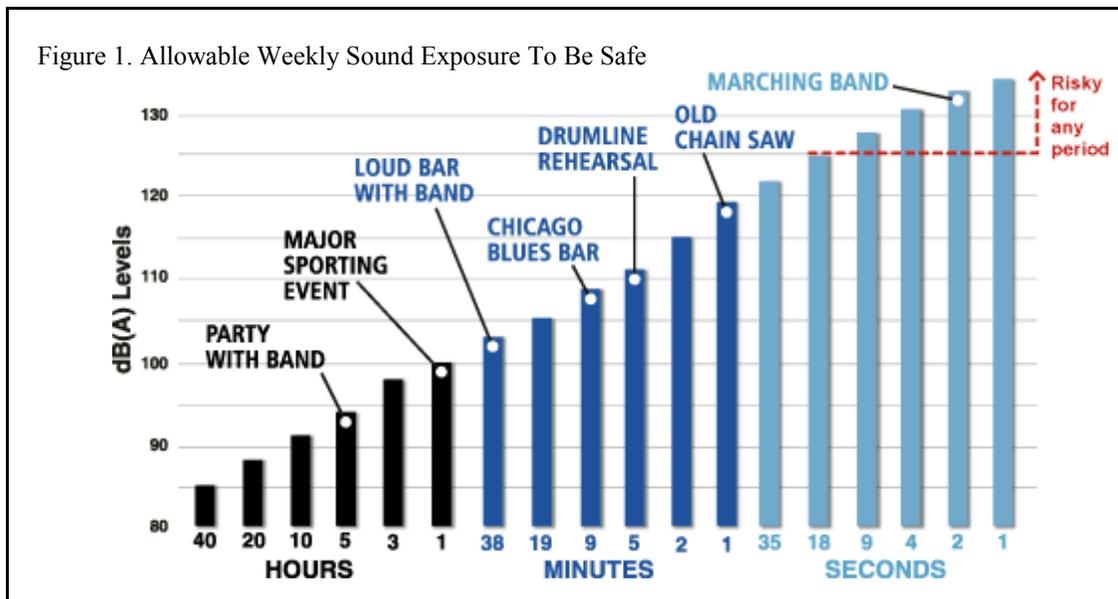


Volume 8, No. 1

Spring 2005

Hearing Loss Among DJs and Other Entertainment Workers

We recently heard from an audiologist who was concerned about the noise level from the music at a party and whether we were receiving reports on workers employed in this industry, such as DJs, musicians, and workers at entertainment establishments. Despite the literature on the hazardous noise levels workers in the entertainment field are exposed to, it is not a group whose employer is likely to have a hearing conservation program, which is providing audiometric testing nor is it a group likely to see an audiologist. An alternative explanation is that audiologists are forgetting to report musicians or



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workers in the entertainment industry because they are not traditional industrial workers exposed to noise.

There are four studies that have documented both high noise levels and both temporary and permanent hearing loss to DJs and other music workers.

Disc Jockeys, 23 tested – England

Noise levels – Average 96 dB(A) – Max 108 dBA

Hearing loss – 70% Temporary Thresholds Shifts

13% permanent hearing loss

Bray A, Szymanski M, Mills R. Noise Induced Hearing Loss in Dance Music Disc Jockeys and an Examination of Sound Levels in Nightclubs. *Journal Laryngology and Otology* 2004; 118:123-128.

Music Bars/Discotheques- 28 Student employees tested -England

Noise levels – 90 dB(A) – 124 dB(A)

Hearing loss – 29% > 30 dB

Sadhra S, Jackson CA, Ryder T, Brown MJ. Noise Exposure and Hearing Loss Among Student Employees Working in University Entertainment Venues. *Annals Occupational Hygiene* 2002; 46:455-463.

Discotheques – 46 Disc Jockeys, bartenders, waiters and security officers tested from five discotheques – Singapore

Noise levels – All > 89 dB(A) averaged over shift

Hearing loss – 42% “early sensorineural hearing loss”

Lee LT. A Study of the Noise Hazard to Employees in Local Discotheques. *Singapore Medical Journal* 1999; 40:571-574.

Music Club Employees – 8 music clubs - New York City

Noise levels – 94-106.7 dB(A) during performance

91.9-99.8 dB(A) overall average

Only 16% of 31 employees wore hearing protection, no audiometric testing performed.

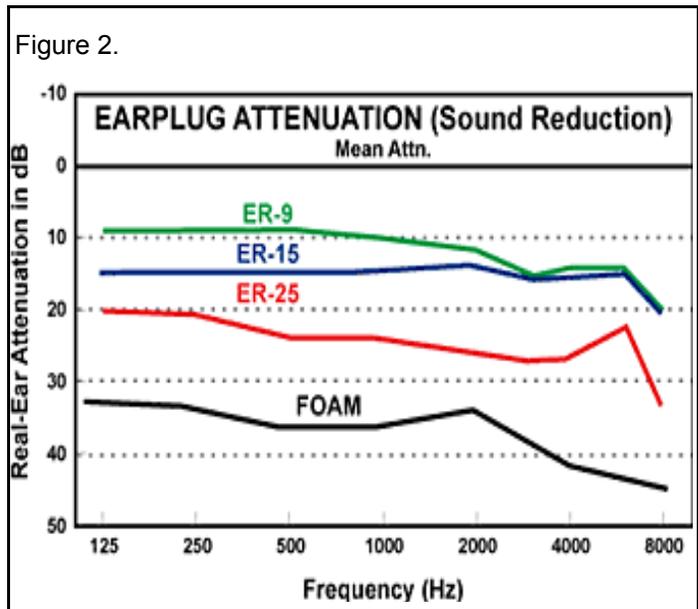
Gunderson E, Moline J, Catalano P. Risks of Developing Noise-Induced Hearing Loss in Employees of Urban Music Clubs. *American Journal Industrial Medicine* 1997; 31:75-79.

Patrons of these establishments would be at risk of hearing loss but generally patron exposure would be less frequent and prolonged. There is an additional literature on hearing loss in classical musicians. (Teie PU. Noise-induced hearing loss and symphony orchestra musicians: risk factors, effects and management. *Maryland Medical Journal* 1998; 47:13-18)

Hearing protection has been developed specifically for musicians. Musicians and those in the music/entertainment business are concerned about being able to hear the music and are resistant to wearing hearing protection that might compromise the quality of the music. One company is repeatedly cited as producing the best hearing protection for musicians. The company’s literature states that their hearing protection allows “the same quality as the original, only quieter. The result is that speech and music are clear – you still hear the blend clearly, feel the bass, and distinguish each tone.” Their website address is: <http://www.etymotic.com>

In comparison to foam earplugs, they state the attenuation of their products are equal across all

frequencies and not greater in the high frequencies as with foam (see Figure 2). Their hearing protection devices are more expensive than other devices. Their ready-fit earplugs cost \$12 a pair and has a 12 dB noise reduction rating, although the manufacturer claims that when properly inserted it provides 20 dB attenuation. Their custom fit devices have either a 9, 15 or 25 dB attenuation and cost \$174 a pair with replacement buttons at \$80/pair. They have an educational brochure for patients which can be downloaded off of their website. A graph from their educational brochure showing noise levels and maximum number of hours per week of safe exposure for different forms of music is shown in Figure 1.



We encourage compliance with Michigan's law that requires the reporting of work-related hearing loss from all sectors of the work environment. We are interested in knowing if you have seen professional musicians, DJs and others in the music industry with hearing loss. Please see ways to contact us on the back page.

****Important News****

www.michigan.gov

Release Date: June 11, 2004

Last Update: November 01, 2004 Agency: Community Health

Audiologists Licensing Update

Public Act 97 of 2004 was officially filed with the Secretary of State's office on May 7, 2004. This amends the Public Health Code to provide for the licensure of audiologists.

On October 25, 2004, the Governor appointed eight of the nine board members. We will be scheduling an orientation meeting with the Board members to familiarize them with the duties and responsibilities of the Board. We will then establish regular meetings with the Board. In order to issue licenses, the Department and Board will work together to create rules which establish the basic standards for the issuance of licenses. The rule-making process can take up to 12 months to complete.

As soon as we are able to begin accepting applications for licensure, we will be mailing interested parties the application and information about applying for licensure. We have requested a mailing list from the state association and we are creating lists of interested parties from email and phone requests.

Check the web site periodically for updates on our progress. If you are interested in receiving an application packet when available, you can email us at bhpinfo@michigan.gov or you can call our main line and leave your name and address in the applications mailbox (517) 335-0918.

Thank you for your patience.

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**Check out our newly
designed web site at:
www.chm.msu.edu/oem**

Now Hear This...

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Address service requested.

In this issue:

Hearing Loss Among DJs and
Other Entertainment Workers

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Michigan Law Requires the

Reporting of Known or Suspected

Occupational NHL

Reporting can be done by:

Internet

www.chm.msu.edu/ocm

E-Mail

ODREPORT@ht.msu.edu

FAX

517-432-3606

Telephone

1-800-446-7805

Mail

MIOSHA-MTS Division

P.O. Box 30649

Lansing, MI 48909-8149

**Suggested Criteria for Reporting
Occupational NHL**

1. A history of significant exposure to noise

at work; AND

2. A STS of 10 dB or more in either ear at an

average of 2000, 3000 & 4000 Hz. And

the employee's total hearing level is 25 dB

or more at the same three frequencies. OR

3. A fixed loss.*

*Suggested definitions: a 25 dB 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 15 dB or greater loss in either ear

at an average of 3000 & 4000 Hz.

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Now Hear This is published quarterly by Michi-
gan State University-College of Human Medicine
with funding from the Michigan Occupational
Safety & Health Administration (MIOSHA) and
is available at no cost. Suggestions and com-
ments are welcome.

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