

# Innovation Award



## The Hearing Conservation Workshop

March 14, 2014



# HearTomorrow and The Hearing Conservation Workshop



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Associate Chair, Dept. of Audio Arts & Acoustics  
Director, Audio Design & Production Program

- Founder, HearTomorrow.Org and creator of The Hearing Conservation Workshop
- Teaching “Studies in Hearing” since 2001.
- Professional Memberships:
  - Audio Engineering Society
  - National Hearing Conservation Association
  - Performing Arts Medicine Association

# A Personal Journey to HearTomorrow



## 1970s

- Partner and house sound engineer in the Chicago music club, [Amazingrace](#).
- Pat Metheny's first front-of-house mix engineer in 1978.

## 1980s

- Partner and chief managing engineer of [Studiomedia Recording Company](#).
- Adjunct professor at Northwestern University, teaching audio engineering in the schools of music and communication.

## 1990s to today

- Joined faculty of the Audio Arts & Acoustics Department of Columbia College Chicago
- Developed a unique course for Columbia College audio majors entitled "Studies in Hearing", addressing hearing physiology, disorders and conservation. This course became the framework for the Hearing Conservation Workshop.



# HearTomorrow and The Hearing Conservation Workshop

- Teaching hearing awareness and conservation to students and professionals in the audio, music and hearing science industries since 2008.



# Hear Tomorrow:



With Support from:



by Honeywell

And on Behalf of:



**AES Technical Committee**  
Hearing and Hearing Loss Prevention

# The Hearing Conservation Workshop: Content



- Teaching physiology, hearing disorders and hearing conservation to audio and music people who are *predisposed* to care about their hearing.

- Presented in the language of audio and music, so they easily understand and appreciate both the importance and delicacy of their hearing.

# The Hearing Conservation Workshop Evolves



- In 2009, following a recommendation from NHCA colleagues, developed a webinar for [audiologyonline.com](http://www.audiologyonline.com)
  - <http://www.audiologyonline.com/audiology-ceus/course/teaching-hearing-conservation-and-awareness-14479>
- A new version of the workshop was developing, directed toward hearing health professionals.
  - Recognizing music and audio professionals as a special patient cohort that desperately needs regular hearing health care
  - Encouraging hearing health professionals to present concepts in the context of sound and music, to better reach and treat *all* patients.

# The Hearing Conservation Workshop Evolves

## Reactions from subscribers to the webinar:

*-This course has taught me new, more meaningful ways to educate my patients about noise damage and the importance of hearing protection – thank you!*

*-Wow, this presentation made me really question my current “counseling” about the audiogram and hearing in general, and provided great ideas to make it more effective.*



# The Hearing Conservation Workshop Today



Over 60 two-hour seminars delivered through 2013 at:

- 32 audio and/or music programs in colleges and universities
- 2 US Army division bands
- 5 audiology and health services schools
- 14 audiology/health services conferences/meetings
- 9 audio engineering conferences

**~2250 attendees**

# The Hearing Conservation Workshop

## Today



- Learning Outcomes
  - Appreciate how important our sense of hearing is
  - Understand how hearing works
  - Understand how hearing can be damaged and early warning signs of damage
  - Know how to protect our hearing

# The Hearing Conservation Workshop: Messages



- Recognize the Problem
  - We live in a culture that is so visually oriented that we are unaware of the sensitivity and delicacy of our hearing.
    - We are quick to protect our eyes from bright light, but never behave the same to loud sound, whether pleasing or not.
  - We are very tolerant of poor fidelity and excessive volume
  - Few persons, other than those already suffering from hearing loss, realize what a debilitating disorder hearing loss is.
- “If I could have one of my two senses back, it would be hearing.”
  - “Blindness separates us from things, but deafness separates us from people.” - Helen Keller



# The Hearing Conservation Workshop: Messages



- Recognizing many hearing hazards, not just live music . . .

Sound Hazard	Sound Level	Allowable Exposure Time
ATVs, Snowmobiles, Jet Skis	110 to 105 dBA (full throttle)	7.5 to 15 minutes
Baseball game	94 dBA	1 hour
Hockey game	103 dBA	7.5 minutes
Football game	97 dBA (125 to 137 dB peak SPL during 2013 season)	30 minutes
Nascar races	105 dBA	4 minutes
Dance clubs	93-103 dBA	1.25 hour to 7.5 min.

# The Hearing Conservation Workshop: Messages

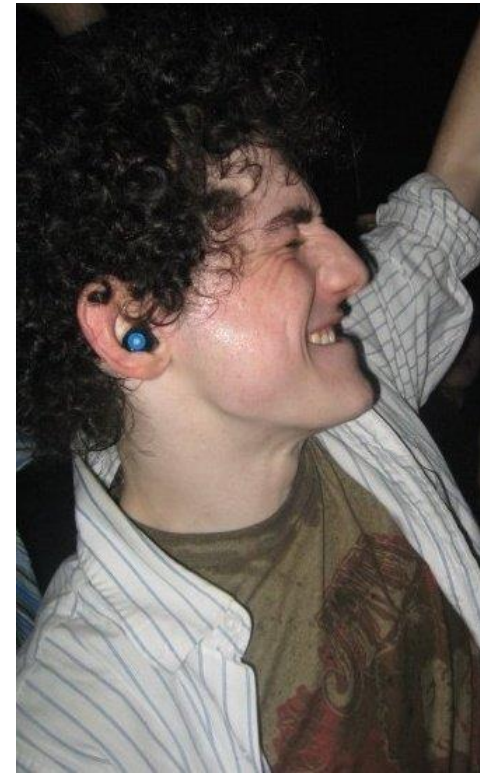


- Understand how hearing works
  - Teach the physiology in terms that are easy to grasp
  - Use our shared value for music and entertainment as a way to show how healthy hearing is key to quality of life.
  - When they have a sense of how the ear works, they can grasp how it breaks
- Develop a sense of “loudness” and the need to protect
  - We should know dBA like we know our colors
  - Professionals should invest in a sound level meter
  - A good benchmark is, 100 dBA is safe for 15 minutes

# The Hearing Conservation Workshop: Messages



- Learn conservation strategies and tools
  - Move away from hazardous sound sources or limit exposure time
  - Use “flat attenuation” musician’s earplugs
  - In-Ear Monitor Systems for exposure monitoring by performing musicians
  
- No need to sacrifice the joy of music



# The HearTomorrow: Approach

- Promote a sense of *ownership* of one's hearing.
  - Then they will *want to know more and take care of their hearing.*
- Teach in the audience's language and from their own perspective.
- Giving hearing health practitioners strategies to learn and adopt preventive care.
  - Seeing sound and music professionals as an important patient cohort is the catalyst to seeing the value of promoting hearing health.

# Hear Tomorrow ... Tomorrow

- More Workshops
- Publishing
- Outreach through other health organizations
- Approach the general public







# HearTomorrow ... Tomorrow

- “Who’s Watching Out for Your Hearing?”
  - A hearing awareness video (already in progress) targeting teens and young adults
  - Featuring well-known artists who are “compassionate advocates” for the cause of hearing conservation.
- Publishing
  - A text on physiology, disorders & conservation for schools of music and audio engineering.
  - Industry magazines (Audiology Now, Mix, Live Sound International, Sound & Communications)

# Safe-in-Sound and Hear Tomorrow

- Honored to be recognized for an effort that has been a “solo passion”.
- This nationally recognized award will give The Hearing Conservation Workshop greater credibility when soliciting new host institutions and sponsorships thereby extending its reach.





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