

Smiling from Ear to Hear: Protecting and Preserving our Hearing, Yvonne Gonzales Redman

All musicians may be in sound environments that can potentially cause irreparable change in our hearing. Even music that is pleasing to us can be damaging, although it need not be.

This session explores current hearing research in multiple musical environments and how changes may affect our perception of timbre, clarity and loudness. This session will begin by sharing the results of current research related to sound exposure in multiple vocal music environments. This will include studies exploring the measured sound levels of vocal production in practice and performance spaces, and considering the possible sound exposure to the instructors teaching in those environments.

We will discuss music induced hearing loss, the factors that contribute to accelerating hearing loss, and the choices we can make to maintain safe musical environments.

After an introduction of research, the session will cover basic hearing function and common sound levels for context. Frequencies commonly assessed in audiometric tests and what they represent in our musical soundscape will be discussed. By playing sound examples, I will show how our timbre, clarity, and loudness perception may be affected by frequency changes.

Lastly, I will share guidelines suggested by researchers who advocate for Hearing Loss Prevention Programs in music performance settings. We will discuss the elements of measuring spaces acoustically and explore the variety and cost of hearing protection. The purpose of Prevention Programs is to avoid creating a hearing loss but also to sustain the hearing that is currently present and avoid further deterioration.

Understanding our hearing system and reviewing the potential effects of the musical sound environment we learn and teach in is of great importance to the future of our personal and musical lives. Hearing can be maintained and protected if musicians are made aware of warnings, best practices, and the importance of regular hearing tests. Attendees will leave understanding changes in perception due to hearing reduction provided by videos and sound recordings. All will leave aware of current research and recommended guidelines to consider and apply toward protecting hearing in their

musical environments. I want the topics of this session to ensure that all musicians can Smile from Ear to Hear throughout their musical lifetime

Yvonne Gonzales Redman, joined the faculty at Illinois School of Music in Fall 2008, and teaches a variety of students majoring in music education and performance. She is dedicated to staying current in pedagogy and related science in all genres of music. She has presented on connecting vocal genres at the 2017 Stockholm, Sweden ICVT, and recently at the 2018 Florida MEAC on performance anxiety. Prior to Illinois, she enjoyed an 18-year career as a main stage soprano at the Metropolitan Opera as a principal soloist, including 26 live radio and television broadcasts.

Her experience performing and teaching in multiple acoustic spaces inspired her interest in understanding the impact music work environments have on voicing and hearing. She is collaborating on an interdisciplinary research study with her Department of Speech and Hearing Science, collecting data on the changes in the communicative systems of voice teachers in their workplace.