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HEARING ACUITY OF UNDERGRADUATE MUSIC STUDENTS

When students enter college or university music programs, for the first time, they are able to spend long hours practicing their music skills and applying their music knowledge. Typically, undergraduate music students spend more hours practicing their instruments than was possible in high school. Many of these hours are spent in small practice rooms, where intensity levels exceed those at which businesses would be required to implement hearing conservation programs by the Occupational Safety and Administration (OHSA) of the United States. As professional musicians and music educators, hearing health is vital to success. High intensity levels in practice rooms can cause hearing loss that may threaten both pitch and loudness perceptions. Informing students and teachers of potential hearing losses is essential, and measuring hearing thresholds are warranted.

The purpose of this study was to begin a longitudinal study of hearing acuity among undergraduate music students. The study submitted for presentation during the North Carolina Music Educators Association (NCMEA) In-service Conference includes the results of the first year of the longitudinal study. During the first year, a baseline audiogram was established, and hearing thresholds of students were compared across class levels and instrument groups. Additionally, a brief questionnaire was administered to obtain information about class level, instrument major, use of hearing protection, exposure to amplified sound, experience of tinnitus, and history of ear disorders.

The hearing thresholds of 108 undergraduate music students were assessed to determine if the accumulated exposure to intense sound levels negatively affects hearing acuity. Based on the data analysis of student audiograms, 50% of the audiograms revealed a noise notch (i.e., decreased hearing acuity) at 6000 Hertz. This finding suggested that continued exposure via music practice and performance contributes to decreased hearing acuity across music students. Based on research, the researchers concluded that the noise notch at 6000 Hertz is indicative of noise-induced

hearing loss (NIHL) occurring early in the careers of prospective professional musicians and music educators. Results of the current study suggested that hearing conservation programs should be implemented in undergraduate music programs. During the NCMEA Research Poster Session (11/15/04, 4:00 p.m.), in addition to providing first-year results of the longitudinal study, the researchers will provide information regarding how to implement hearing conservation programs in college and university music programs, and how to prevent hearing loss among students pursuing music as a career.