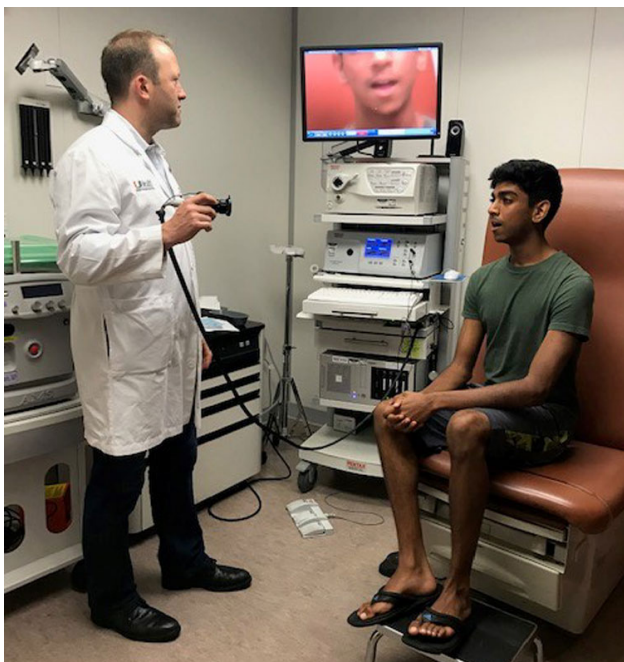




# Research Finds Vocal Performance Students in Certain Genres Have Higher Prevalence of Vocal Fold Pathologies

Contemporary commercial music and musical theater first-year students were found to have more vocal fold pathologies compared with classical students in a study led by researchers at the University of Miami Miller School of Medicine.



Dr. David Rosow with student Yashwanth Ramanujam.

“Some anecdotal evidence suggests that contemporary commercial music and theater singers are more likely to develop vocal



fold pathologies,” said David Rosow, M.D., associate professor of otolaryngology at the Miller School of Medicine. “This study takes an important first step in identifying students of these genres as being at higher risk of vocal injury, which underscores the need for preventative education and training.”

The study, in which Dr. Rosow is a senior author, titled “Prevalence of Vocal Fold Pathologies Among First-Year Singing Students Across Genres,” was **published** recently in *The Laryngoscope*.

Dr. Rosow and his team examined 57 first-year students at the University of Miami Frost School of Music during their annual vocal screening, done as a partnership between the Miller School of Medicine and the Frost School of Music. As it was a screening, most students were asymptomatic. Analysis included demographic information, history of voice use and vocal habits, stroboscopic examination of the vocal folds, subjective self-evaluation of vocal difficulty, and perceptual evaluation of the voice by a trained speech pathologist.

Researchers found that vocal fold pathologies were present in 17% of contemporary commercial music (CCM) students, 40% of musical theater students and 0% of classical singers.

“Singers use their vocal folds in a coordinated way that is very similar to the way athletes use their bodies,” said Dr. Rosow, who is also assistant professor of clinical vocal performance at the Frost School of Music. “Just as a football player uses his body differently from a runner, classical, CCM, and musical theater singing students use their vocal folds – their instruments – differently from each other. Musical theater and contemporary singers may use styles including ‘belting,’ heavy chest voice, or use of growling,



raspy, throaty sounds that can put a considerable amount of stress on the vocal folds.”

Dr. Rosow also noted that there has not been much research examining the differences between training and education of singing students in each genre. Contemporary singers often arrive at college with a classical training, which suggests that inadequate training or education is contributing to an increased likelihood of vocal fold injury.

“This study is really just the first step in better understanding why these students are at higher risk and what we can do to prevent injury to the vocal folds in the first place,” Dr. Rosow said. “Ultimately, we’ll expand this study to look at these students over their entire four-year career in college to see how the prevalence of vocal fold pathology changes over time.

“Do injuries to vocal folds decrease with focused training on genre? Or does it increase with continued stress and strain?” he asked. “We must understand these differences so that we can help keep singers – whatever their genre – healthy enough to perform. Injuries to the vocal folds can lead to missed auditions, gigs and income, not to mention emotional, mental and physical stress.”

The first author of the study is Adam T. Lloyd, M.M., M.A., CCC-SLP, voice pathologist and singing health specialist in the University of Miami Department of Otolaryngology. Other authors include Julia Gerhard, D.M.A., CCC-SLP; Paul Baker; Donna S. Lundy, Ph.D., CCC-SLP; Jennylee Diaz, M.S., CCC-SLP; Michelle M. Bretl, M.S., CCC-SLP; Mario A. Landera, SLP.D, CCC-SLP; Mursalin Anis, M.D., Ph.D.; and Judy Marchman, D.M.A.

