

Singers' genre may play role in voice injuries

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A singer's primary genre can impact the likelihood of developing vocal fold injury and may even influence the specific type of injury that occurs, a recent study by UT Southwestern researchers suggests.

The two-part study, led by Lesley Childs, M.D., Associate Professor of

Otolaryngology-Head and Neck Surgery and Medical Director of the Voice Center at UT Southwestern, involved the detailed review of more than 1,000 patient records. The findings, published in *The Laryngoscope*, yield new insights into the possible mechanisms of vocal injuries in singers, which could help facilitate preventive measures and earlier recognition and treatment.

Phonotraumatic lesions that develop on the [vocal folds](#) include benign nodules, pseudocysts, and hemorrhagic polyps, all of which can lead to hoarseness. These injuries are typically caused by overuse or straining of the [voice](#).

The study found that while nodules were nearly equally distributed across all singing genres, opera singers presented with a significantly higher proportion of pseudocysts, and praise/worship singers were noted to have significantly more hemorrhagic polyps.

"These findings, combined with clinical observations, suggest that nodules may be related more to the speaking voice than the [singing voice](#) since they were more or less equally distributed across genres," said Dr. Childs.

"At the same time, the style of singing, acoustic environment, and vocal demands unique to each genre clearly impact both the frequency and type of injuries that develop, with opera singers presenting with more chronic injury patterns and praise/worship singers presenting with more acute injuries."

The first part of the study looked at the medical records of 712 singers who presented with dysphonia from June 2017 to December 2019. Of those patients, 191 (26.8%) were diagnosed with a phonotraumatic lesion.

The second part involved the review of 443 singer patients diagnosed with vocal fold lesions from July 2011 to March 2020, referenced against their primary genre of singing. This investigation enabled researchers to identify which genres had higher rates of injuries than others.

"Understanding the likelihood and potential causes of both chronic and acute injuries to the vocal folds is extremely beneficial for both singers and voice instructors," said Dr. Childs. "By considering their singing genre's unique vocal load, acoustic environment, and the vocal technique employed, they can work to modify behaviors and possibly prevent vocal fold injury."

The new study complements earlier findings by UTSW Voice Center researchers on the causes and treatments of vocal injuries. In May, the Voice Center released a [comprehensive study](#) of more than 400 patients that identified the most common vocal injuries sustained by singers, both professional and amateur.

Raquel Lindemann Nguyen, 43, is a folk [singer](#)/songwriter who also works as an elementary school music and art teacher. She began losing her voice and was referred to Dr. Childs, who diagnosed her with muscle tension dysphonia.

"I couldn't sing or teach," Ms. Lindemann Nguyen said. "It was impossible to pursue my passion, and I was resigned that I would never sing again. Dr. Childs gave me my life back and more. She treated me with such compassion and kindness."

Dr. Childs referred Ms. Lindemann Nguyen for voice therapy with Amy Harris, M.A., CCC-SLP, a speech-language pathologist at UT Southwestern.

Working with Ms. Harris once a week at first, and later twice a month, made all the difference. Ms. Harris focused on improving Ms. Lindemann Nguyen's airflow, rebalancing the vocal subsystems, and teaching her to relax her throat muscles to sing more efficiently and reduce the strain that led to her overuse [injury](#).

"It's still a challenge, but I know I can always count on the UT Southwestern Voice Center for support," she said.

The Voice Center, one of the largest in the South, employs a collaborative, multidisciplinary team of passionate voice care specialists to diagnose and treat injured singers. Several members of the Voice Center are singers including Dr. Childs, who is a classically trained soprano with experience singing in professional chamber ensembles and with Walt Disney Records.

Other UTSW researchers who contributed to this study include Ted Mau, Alexandra D'Oto, Dylan R. Beams, and Linda Hynan.

More information: Lesley F. Childs et al, Association of Genre of Singing and Phonotraumatic Vocal Fold Lesions in Singers, *The Laryngoscope* (2022). [DOI: 10.1002/lary.30414](https://doi.org/10.1002/lary.30414)

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