COVID-19 nasal swab test may not be best for those who've had sinus surgery

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People who have had major sinus surgery should consult their ENT doctor before undergoing COVID-19 swab testing, new research indicates.

Likewise, those performing swab testing should ask whether the patient has had extensive sinus or skull base surgery, said Philip G. Chen, MD, study senior author from The University of Texas Health Science Center at San Antonio (UT Health San Antonio).

"If so, other modes of testing such as at the back of the throat should be performed," said Dr. Chen, associate professor of otolaryngology-head and neck surgery in the university's Joe R. and Teresa Lozano Long School of Medicine.

JAMA Otolaryngology-Head & Neck Surgery published the study March 4.

Online information about COVID nasopharyngeal swabs lacks information warning those with prior extensive sinus or skull base surgery, Dr. Chen said.

"Not one site of the 200 we searched online had information cautioning against blind nasopharyngeal swab testing in those with a history of sinus or skull base surgery," he said.

Asked how often swabbing is done incorrectly, Dr. Chen said, "We really don't know that. But in a review of videos online by Higgins, et al., the authors found that about half of the videos on how to perform COVID-19 nasopharyngeal swabs were incorrect."

Issues include incorrect angling of the swab and inappropriate depth of insertion. If the swab angle is too high, a puncture may occur. The sinuses can protect the skull base to a degree, Dr. Chen said.

Injury from incorrect nasopharyngeal swab technique, while rare, may include cerebrospinal fluid leakage or severe bleeding.

Polymerase chain reaction via nasopharyngeal swabs is a test frequently used to detect SARS-CoV-2 infection.

Dr. Chen is a board-certified, fellowship-trained rhinologist—the only fellowship-trained physician of this rare specialization in San Antonio. Rhinologists are ear, nose and throat (ENT) subspecialists who have unique interest and expertise in medical and surgical treatment of nasal and sinus disorders.


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