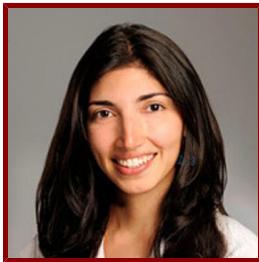


# Stanford

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## Zara Patel, MD

Professor of Otolaryngology - Head & Neck Surgery (OHNS)  
Otolaryngology (Head and Neck Surgery)

### **CLINICAL OFFICE (PRIMARY)**

- **Stanford Dept of Otolaryngology, Head and Neck Surgery**

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### **Bio**

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#### **BIO**

Dr. Zara M. Patel is Director of Endoscopic Skull Base Surgery and a Professor of Otolaryngology and, by courtesy, of Neurosurgery at Stanford. She was born and raised in St. Louis, completed her MD at the Oregon Health and Sciences University in Portland, Oregon and completed her residency training in otolaryngology at Mount Sinai Medical Center in New York, NY. After pursuing fellowship training in rhinology and endoscopic skull base surgery at Stanford University, she was recruited to join the Emory University faculty in Atlanta in 2011. After four years, the rhinology division recruited her back to the West coast to rejoin the department here at Stanford University in 2015.

Dr. Patel is an expert in advanced endoscopic sinus and skull base surgery. She treats patients with a wide variety of rhinologic complaints, including chronic sinus infection or inflammation, sinus disease that has failed medical therapy, sinus disease that has failed prior surgical therapy, cerebrospinal fluid leaks, benign and malignant sinus and skull base tumors, as well as olfactory disorders.

She has served as Chair of the Education Committee and Member of the Board of Directors for the American Rhinologic Society, is current Chair of the Rhinology and Allergy Education Committee for the American Academy of Otolaryngology - Head and Neck Surgery, and has developed a multitude of educational materials for both physicians and patients to help them better understand rhinologic disorders. She is passionate about educating patients to allow them to make the best decisions about their own care, leading to better outcomes.

Dr. Patel has published widely in topics such as avoiding complications in endoscopic sinus surgery, chronic rhinosinusitis in the immunosuppressed patient population, new devices and techniques for endoscopic skull base surgery, and olfactory dysfunction. She continues to perform research in these areas, and is currently collaborating with neuroscientists and engineers to develop technology that she hopes will eventually help cure patients with smell loss, and potentially even help those with neurodegenerative disorders, such as Alzheimer's and Parkinson's disease.

#### **CLINICAL FOCUS**

- Endoscopic Sinus and Skull Base Surgery

- Chronic Rhinosinusitis
- Benign and Malignant Sinus and Skull Base Tumors
- Olfaction and Olfactory Disorders
- Cerebrospinal Fluid Leaks
- Sinusitis
- Nasal Obstruction
- Epiphora, Orbital Tumors, Orbital decompression
- Pituitary Surgery
- Rhinology
- Otolaryngology

## ACADEMIC APPOINTMENTS

- Professor - University Medical Line, Otolaryngology (Head and Neck Surgery)
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

## ADMINISTRATIVE APPOINTMENTS

- Director of Endoscopic Skull Base Surgery, Department of Otolaryngology - Head and Neck Surgery, (2017- present)
- Director Neurorhinology - Advanced Sinus and Skull Base Surgery Fellowship, Department of Otolaryngology-Head and Neck Surgery, Stanford University, (2015- present)

## HONORS AND AWARDS

- Presidential Citation for Service, American Rhinologic Society (2018, 2021, 2022)
- Fellow, American Rhinologic Society (2016)
- Woodruff Teaching Award, Emory University (2014)
- Mount Sinai Resident Teaching Award, Mount Sinai Medical School (2010)
- First Place, New York City Otolaryngology Resident Research Day (2008)
- Leadership Grant, American Academy of Otolaryngology (2007, 2008)
- Campbell Scholarship, Oregon Health and Sciences University (2004)
- Inductee, National Medical Honors Society, Alpha Omega Alpha (2004)
- OHSU Rose Award, Oregon Health and Sciences University (2003)
- Miller Memorial Fund Scholarship, University of Missouri (2001-2003)
- Hughes Academic Achievement Award, State of Missouri (2000)
- Inductee, National Honor Society, Phi Beta Kappa (2000)
- Inductee, National Honor Society, Phi Eta Sigma (1998)
- Bright Flight Scholarship, University of Missouri (1997-2001)
- National Merit Finalist, National Merit Scholarship Corporation (1997)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Rhinology and Allergy Education Committee, American Academy of Otolaryngology and Head and Neck Surgery (2021 - present)
- Member, Board of Directors, American Rhinologic Society (2018 - 2021)
- Member, Scientific Program Committee, American Academy of Otolaryngology (2016 - 2021)

- Chair, Education Committee, American Rhinologic Society (2014 - 2017)
- Member, Adult Sinusitis Guideline Committee, American Academy of Otolaryngology (2014 - 2015)
- Member, Rhinology and Allergy Education Committee, American Academy of Otolaryngology (2013 - 2021)
- Member, Program Committee, American Rhinologic Society (2012 - 2016)
- Member, Legislative Representatives Committee, Board of Governors, American Academy of Otolaryngology (2012 - 2016)

## PROFESSIONAL EDUCATION

- Residency: Icahn School of Medicine at Mount Sinai (2010) NY
- Internship: Icahn School of Medicine at Mount Sinai (2006) NY
- Board Certification: Otolaryngology, American Board of Otolaryngology (2011)
- Fellowship: Stanford School of Medicine (2011) CA
- Medical Education: Oregon Health Science University (2005) OR

## LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>
- Donate to support Dr. Patel's Research (Please specify Dr. Zara Patel on form): <https://med.stanford.edu/ohns/contact/gift.html>

## Research & Scholarship

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### CLINICAL TRIALS

- Effect of Tranexamic Acid on Postoperative Bleeding Following Sinus and Nasal Surgery, Not Recruiting
- Intranasal Injection of PRP Versus Saline for Treatment of Olfactory Dysfunction, Not Recruiting

## Publications

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### PUBLICATIONS

- **Impact of dupilumab prescribing on utilization of medical and surgical therapies for chronic rhinosinusitis with nasal polyps.** *International forum of allergy & rhinology*  
Low, C. M., Wang, A. R., Yong, M., Nayak, J., Patel, Z., Hwang, P. H.  
2024
- **Efficacy of EDS-FLU for Chronic Rhinosinusitis: Two Randomized Controlled Trials (ReOpen1 and ReOpen2).** *The journal of allergy and clinical immunology. In practice*  
Palmer, J. N., Adappa, N. D., Chandra, R. K., Davis, G. E., Mahdavinia, M., Messina, J., Ow, R. A., Patel, Z. M., Peters, A. T., Sacks, H., Schlosser, R. J., Sindwani, R., Soler, et al  
2024
- **Determining the minimal clinically important difference for the questionnaire of olfactory disorders in people with cystic fibrosis and factors associated with improvement after highly effective modulator therapy.** *International forum of allergy & rhinology*  
Miller, J. E., Taylor-Cousar, J. L., Overdevest, J. B., Khatiwada, A., Mace, J. C., Alt, J. A., Bodner, T. E., Chowdhury, N. I., DiMango, E. A., Eshaghian, P. H., Getz, A. E., Gudis, D. A., Han, et al  
2023
- **Surgical Correction of Nasal Obstruction and Its Effect on Eustachian Tube Dysfunction Symptoms.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*  
Daum, R., Grimm, D., Castro Silva, B. R., Huang, A. E., Lee, J. Y., Nayak, J. V., Patel, Z. M., Hwang, P. H., Chang, M. T.  
2023
- **Factors that predict pursuing sinus surgery in the era of highly effective modulator therapy.** *International forum of allergy & rhinology*  
Beswick, D. M., Han, E. J., Mace, J. C., Markarian, K., Alt, J. A., Bodner, T. E., Chowdhury, N. I., Eshaghian, P. H., Getz, A. E., Hwang, P. H., Khanwalkar, A., Kimple, A. J., Lee, et al  
2023

- **Eustachian tube dysfunction symptoms after endonasal skull base surgery.** *International forum of allergy & rhinology*  
Grimm, D., Daum, R., Castro Silva, B. R., Lee, C. K., Fernandez-Miranda, J. C., Nayak, J. V., Patel, Z. M., Hwang, P. H., Chang, M. T.  
2023
- **Olfactory System: Basic Anatomy and Physiology for General Otorhinolaryngologists.** *Clinical and experimental otorhinolaryngology*  
Han, S. A., Kim, J. K., Cho, D., Patel, Z. M., Rhee, C.  
2023
- **International consensus statement on allergy and rhinology: Sinonasal tumors.** *International forum of allergy & rhinology*  
Kuan, E. C., Wang, E. W., Adappa, N. D., Beswick, D. M., London, N. R., Su, S. Y., Wang, M. B., Abuzeid, W. M., Alexiev, B., Alt, J. A., Antognoni, P., Alonso-Basanta, M., Batra, et al  
2023
- **Predictive factors for decreased baseline quality of life in patients with sinonasal malignancies.** *International forum of allergy & rhinology*  
Fleseriu, C. M., Beswick, D. M., Maoz, S. L., Hwang, P. H., Chobay, G., Kuan, E. C., Chan, E. P., Adappa, N. D., Geltzeiler, M., Getz, A. E., Humphries, I. M., Le, C. H., Abuzeid, et al  
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- **A Consistent Endoscopic Landmark to Identify the Anterior Ethmoidal Artery.** *The Laryngoscope*  
Mundy, D. C., Yan, C. H., Tyler, M. A., Patel, Z. M.  
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- **Multicenter Survival Analysis and Application of an Olfactory Neuroblastoma Staging Modification Incorporating Hyams Grade.** *JAMA otolaryngology--head & neck surgery*  
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- **International Multicenter Study of Clinical Outcomes of Sinonasal Melanoma Shows Survival Benefit for Patients Treated with Immune Checkpoint Inhibitors and Potential Improvements to the Current TNM Staging System.** *Journal of neurological surgery. Part B, Skull base*  
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- **Incidence of hypocortisolism with long-term budesonide irrigations for chronic rhinosinusitis.** *International forum of allergy & rhinology*  
Silva, B. R., Tyler, M. A., Ma, Y., Wang, J., Nayak, J. V., Patel, Z. M., Hwang, P. H.  
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- **Long-term quality of life after treatment in sinonasal malignancy: A prospective, multi-center study.** *International forum of allergy & rhinology*  
Maoz, S. L., Wang, E. W., Hwang, P. H., Chobay, G., Kuan, E. C., Fleseriu, C. M., Chan, E. P., Adappa, N. D., Geltzeiler, M., Getz, A. E., Humphreys, I. M., Le, C. H., Abuzeid, et al  
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- **Disparities in Access to Healthcare in Adults with Sinusitis in the United States.** *International forum of allergy & rhinology*  
Shah, J. P., Youn, G. M., Wei, E. X., Patel, Z. M.  
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- **The Utility of a "Second-Look" Debridement Following Endonasal Skull Base Surgery in the Pediatric Population JOURNAL OF NEUROLOGICAL SURGERY PART B-SKULL BASE**  
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- **Nasal disease with polyps: need for clarity.** *International forum of allergy & rhinology*  
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- **Radiographic predictors of occult intracranial involvement in olfactory neuroblastoma patients.** *International forum of allergy & rhinology*  
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● **Myalgic Encephalomyelitis/Chronic Fatigue Syndrome is common in post-acute sequelae of SARS-CoV-2 infection (PASC): Results from a post-COVID-19 multidisciplinary clinic.** *Frontiers in neurology*

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● **Social Media Utilization in Otolaryngology: A Scoping Review.** *The Laryngoscope*

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● **Avoiding bias in artificial intelligence.** *International forum of allergy & rhinology*

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● **High prevalence of persistent smell loss and qualitative smell dysfunction during the COVID-19 pandemic in the United States: urgent need for clinical trials.** *International forum of allergy & rhinology*

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● **Effect of dupilumab on Eustachian tube dysfunction in patients with chronic rhinosinusitis with nasal polyposis.** *International forum of allergy & rhinology*

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● **Novel Therapies in Olfactory Disorders** *CURRENT OTORHINOLARYNGOLOGY REPORTS*

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● **The Omicron Variant of SARS-CoV-2 and its Effect on the Olfactory System.** *International forum of allergy & rhinology*

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● **Prospective intraoperative and histologic evaluation of cavernous sinus medial wall invasion by pituitary adenomas and its implications for acromegaly remission outcomes.** *Scientific reports*

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● **International consensus statement on allergy and rhinology: Olfaction.** *International forum of allergy & rhinology*

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● **Anatomic Considerations in Endoscopic Pituitary Surgery.** *Otolaryngologic clinics of North America*

Low, C. M., Vigo, V., Nunez, M., Fernandez-Miranda, J. C., Patel, Z. M.

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- **Association of Race, Ethnicity, and Socioeconomic Status With Esthesioneuroblastoma Presentation, Treatment, and Survival.** *OTO open*  
Sharma, R. K., Irace, A. L., Overdevest, J. B., Turner, J. H., Patel, Z. M., Gudis, D. A.  
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1800
- **Venous thromboembolism rates and risk factors following endoscopic skull base surgery.** *International forum of allergy & rhinology*  
Chang, M. T., Jitaroon, K., Song, S., Roozdar, P., Wangworat, Y., Ibrahim, N., Ma, Y., Rao, V. K., Chang, S. D., Fernandez-Miranda, J. C., Patel, Z. M., Dodd, R. L., Hwang, et al  
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- **Comparison of endoscopic sinus surgery timing in lung transplant patients with cystic fibrosis.** *International forum of allergy & rhinology*  
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- **Inflammatory molecular endotypes of nasal polyps derived from Caucasian and Japanese populations.** *The Journal of allergy and clinical immunology*  
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- **The Effect of Povidone-Iodine Nasal Spray on COVID-19 Nasopharyngeal Viral Load in Patients: A Randomized Control Trial.** *The Laryngoscope*  
Zarabanda, D., Vukkadal, N., Phillips, K. M., Qian, Z. J., Mfuh, K. O., Hatter, M., Lee, I. T., Rao, V. K., Hwang, P. H., Domb, G., Patel, Z. M., Pinsky, B. A., Nayak, et al  
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- **Determinants of SARS-CoV-2 entry and replication in airway mucosal tissue and susceptibility in smokers.** *Cell reports. Medicine*  
Nakayama, T., Lee, I. T., Jiang, S., Matter, M. S., Yan, C. H., Overdevest, J. B., Wu, C., Goltsev, Y., Shih, L., Liao, C., Zhu, B., Bai, Y., Lidsky, et al  
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- **Emerging concepts in endoscopic skull base surgery training.** *International forum of allergy & rhinology*  
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- **Assessment of Opioid Use and Analgesic Requirements After Endoscopic Sinus Surgery: A Randomized Clinical Trial.** *JAMA otolaryngology-- head & neck surgery*  
Ayoub, N. F., Choby, G., Turner, J. H., Abuzeid, W. M., Raviv, J. R., Thamboo, A., Ma, Y., Chandra, R. K., Chowdhury, N. I., Stokken, J. K., O'Brien, E. K., Shah, S., Akbar, et al  
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- **Olfactory Loss and Olfactory Training.** *JAMA otolaryngology-- head & neck surgery*  
Patel, Z. M.  
2021
- **Surgical approach is associated with complication rate in sinonasal malignancy: A multicenter study.** *International forum of allergy & rhinology*  
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2021
- **Oral Corticosteroids Following Endoscopic Sinus Surgery for Chronic Rhinosinusitis Without Nasal Polypsis: A Randomized Clinical Trial.** *JAMA otolaryngology-- head & neck surgery*

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2020

- **Regarding Use of Topical Steroids in Patients With COVID-19-Associated Olfactory Loss.** *JAMA otolaryngology-- head & neck surgery*  
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- **Outcomes in Treatment of Rhinosinusitis in the Setting of Medication Induced Immunosuppression.** *American journal of rhinology & allergy*  
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- **In Response to COVID-19 and the Otolaryngologist: Preliminary Evidence-Based Review.** *The Laryngoscope*  
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2020
- **The use of platelet-rich plasma in treatment of olfactory dysfunction: A pilot study.** *Laryngoscope investigative otolaryngology*  
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