Head and Neck Institute
Residency Program
Message from the Institute

We welcome your interest in the Cleveland Clinic Resident Training Program in the Head and Neck Institute. This program includes one year of general and specialty surgical rotations, four years of head and neck surgery and one year of research. Each member of the institute is strongly committed to providing the best possible graduate otolaryngology training.

Because of our large staff, we are able to offer an abundance of clinical experience in areas including auditory, balance, speech and swallowing disorders. We are equally committed to basic research and provide exceptional opportunities for research residents in this area, both through the institute’s laboratory and in conjunction with Cleveland Clinic’s Lerner Research Institute. Our collegial atmosphere enables residents to receive broad clinical training and develop investigative skills, yet still have time for family and personal interests outside the hospital.

Otolaryngology is a dynamic specialty, and Cleveland Clinic’s Head and Neck Institute is a leader (among the top 10 in the nation, according to U.S. News & World Report) with strong programs in all subspecialty areas. We believe our residency program is at the forefront of the field and will provide you with the necessary skills to become one of the otolaryngology leaders of tomorrow.

Marshall Strome, M.D.
Chairman
Head and Neck Institute

Peter Weber, M.D.
Director
Residency Training Program
A National Referral Center,
An International Health Resource

Cleveland Clinic is dedicated to providing patients with excellence in all aspects of their care. As one of the world’s first group practices, Cleveland Clinic was formed in 1921 when four Cleveland physicians came together and set forth their professional standards: “Better care of the sick, investigation of their problems, and further education of those who serve.”

The second-largest medical group practice in the world and the largest hospital in Ohio, Cleveland Clinic includes the 12-story, state-of-the-art Crile Building, more than 1,000 staffed beds, the Cleveland Clinic Educational Foundation and the Lerner Research Institute. This integration of clinical and hospital care with research and education in a private, not-for-profit group practice distinguishes Cleveland Clinic in American medicine. Last year, Cleveland Clinic recorded more than 2.8 million visits and 69,077 surgical cases. Among them are patients from all 50 states and 80 countries. More than 1,700 physicians and scientists and 850 residents/fellows provide patient care in 120 specialties and subspecialties. The Lerner Research Institute oversees more than 2,000 clinical and basic research activities. Total annual research expenditures exceed $150 million from federal agencies, non-federal societies and associations, and endowment funds – a dynamic endorsement by others of the quality of Cleveland Clinic research.

The founding fathers’ dedication to training future generations of physicians continues today. The first class of the Cleveland Clinic Lerner College of Medicine began in July 2004 with a prestigious faculty that includes members of the Head and Neck Institute staff. This initiative will have a significant impact on medicine, research and education. A five-year program, it is designed to prepare physician-scientists for the future.

This brochure offers the prospective Cleveland Clinic resident an overview of the Head and Neck Institute.
Resident Training Program Schedule

The program’s mission is to produce superbly trained academic head and neck surgeons. Those graduates who wish to pursue fellowship training will be highly competitive. Three applicants are accepted into residency training each academic year.

Resident Rotations

The program consists of six years of training. At any level of training, an individual resident may be permitted to undertake more advanced procedures if he or she demonstrates appropriate skills and capability to the satisfaction of the attending surgeon.

Graduate Level I

- 3 months general surgery
- 1 month surgical intensive care unit
- 1 month emergency services
- 1 month plastic and reconstructive surgery
- 1 month neurosurgery
- 1 month thoracic surgery
- 3 months otolaryngology
- 3 weeks vacation

Graduate Level II

- 4 months general otolaryngology
- 4 months pediatric otolaryngology
- 4 months adult otolaryngology

During the otolaryngology rotations, the resident will learn how to perform a complete head and neck examination, including nasopharyngoscopy, indirect laryngoscopy, microscopic examination of the ear, flexible fiberoptic laryngoscopy, rigid endoscopy of the nose and paranasal sinuses, myringotomy with and without placement of PE tube, tonsillectomy, adenoidectomy, excision of head and neck cysts, simple wound closure, tracheotomy, and panendoscopy.

Graduate Level III

- 4 months general otolaryngology
- 4 months otology-neurotology
- 2 months plastic and reconstructive surgery
- 2 months trauma

The third-year resident will learn external ethmoidectomy, simple surgery of the osteomeatal complex via transnasal telescopes, laser surgery of the upper aerodigestive tract, excision of simple branchial cleft remnants, lymph node biopsy, excision of thyroglossal duct cyst, simple flap rotation, submandibular gland excision, true vocal cord injection, foreign-body removal from aerodigestive tract, flap tracheostomy, incision and drainage of deep neck abscesses, uvulopalatopharyngoplasty, septoplasty, placement of eyelid springs, maxillary antrostomy, myringoplasty, tympanoplasty, mastoidectomy, meatoplasty, endolymphatic sac decompression, labyrintheotomy, and all aspects of facial aesthetic surgery.

Residents are required to spend time in audiology, speech and language pathology and the vestibular laboratory to become familiar with subspecialties.
Graduate Level IV
The fourth year is devoted to research. During this year, each resident is required to prepare, have approved and carry out a prospective study of appropriate depth and design. A faculty member from the institute is assigned to the project and becomes a co-investigator. It is expected that a NIH Quality Grant will be submitted for the academic research award. A Master of Science degree may also be obtained through Cleveland State University if the resident desires.

The Head and Neck Institute has dedicated laboratory space and internal funding. Residents have access to the Center for Surgery Research as well as Cleveland Clinic’s Lerner Research Institute. Suyu Shu, Ph.D., who is the pioneer of adoptive immunotherapy, heads the Center for Surgery Research. The research institute has a staff of 125 in six departments to support any and all other research interests. Completion of a clinical research project is also expected. The clinical faculty provides mentoring.

Graduate Level V

1 year otolaryngology
The GL-V resident will learn to perform endoscopic and traditional sinus surgery, revision septoplasty, transsphehnoideal approach to pituitary gland, lateral rhinoplasty/medical maxillectomy, rhinoplasty, superficial parotidectomy, radical neck dissection, total laryngectomy, pectoralis major flap, excision of oral cavity neoplasm, thyroidectomy and parathyroidectomy, dacrocystorhinostomy, excision of meningoencephaloceles, transplatal approach to choanal atresia, excision of juvenile nasopharyngeal angio-fibroma, repair of laryngotracheal stenosis, foreign-body endoscopy, and reduction mandibular and maxillofacial fractures.

Graduate Level VI

8 months general otolaryngology
4 months otology-neurotology
The GL-VI chief resident learns to perform tympanoplasty with mastoidectomy, modified radical mastoidectomy, ossicular reconstruction/middle ear surgery, stapedectomy, placement of endo-lymphatic shunt, subtotal temporal bone resection, peripheral facial nerve decompression and grafting, revision sinus surgery, transantral ethmoidectomy, revision rhinoplasty, laryngeal framework surgery and re-innervation, partial laryngectomy, composite resection with plate reconstruction, laryngotraceal reconstruction, total maxillectomy, facial reanimation, blepharoplasty and major head and neck flaps.

The GL-VI chief resident participates in all aspects of patient care, including the most sophisticated surgical techniques, and supervises junior residents.

The resident assigned to otology-neurotology is the Chief Adminstrating Resident for that four-month rotation. With appropriate input from the Program Director, other faculty and other residents, the Chief Adminstrating Resident coordinates the night call, vacation and conference schedules, and acts as a liaison between staff and residents.

Teaching Conferences

Monday
6:45-8:00 a.m.
Clinical and Basic Science

Wednesday
7:00-8:30 a.m.
Clinical and Basic Science,
Quality Assurance Home Study Course,
SIPAC, Grand Rounds

7:00-8:00 p.m.
Monthly Journal Club

Friday
7:00-8:00 a.m.
Tumor Board

Basic science and clinical material are presented by Cleveland Clinic faculty and residents, visiting professors and guest lecturers.
About the Resident Training Program

The Head and Neck Institute is divided into seven sections: Communicative Disorders, Head and Neck Surgery, Laryngotracheal Reconstruction, Nasal and Sinus Disorders, Otology and Neurotology, Pediatric Otolaryngology, Vestibular and Balance Disorders, Aesthetic and Reconstructive Surgery and Laryngology.

During training, residents rotate among all sections while completing their board requirements. This curriculum provides a balanced exposure to all specialty areas of otolaryngology, ensuring graduates the ability to perform general otolaryngology with skill, knowledge and confidence. For more than a decade, all graduates have passed the American Board of Otolaryngology Examination, and 90 percent have been accepted to the fellowship of their choice.

The residents work closely with staff physicians. We feel this provides the best opportunity to study disease processes and their surgical management. This arrangement also provides optimal continuity of patient care in the outpatient and hospital settings. Most services see patients in the outpatient clinic at least twice weekly and perform surgery twice weekly.

Resident Evaluations

The faculty reviews each resident’s performance twice yearly. The mid-year evaluation determines whether surgical skills (including the ability to constructively observe surgery), patient care responsibilities and interpersonal relationships are maturing satisfactorily. The year-end evaluation assesses the results of the Annual Otolaryngology Examination, clinical skills, surgical cases (primary/assistant) and interpersonal relationships.

Clinic and Hospital Services

The Head and Neck Institute is one of the busiest departments at Cleveland Clinic. In a typical 12-month period, the department has more than 32,000 clinic visits, more than 2,000 surgical cases and more than 600 hospital admissions. During training, residents perform an average of 2,000 surgical cases as primary surgeon and another 400 as assistant surgeon.
Communicative Disorders

The Section of Communicative Disorders addresses speech, language and hearing disorders in a patient population that ranges from neonatal to geriatric. Residents rotate through the section and observe all facets of speech-language pathology and audiology in an integrated, allied health/medical team approach. Residents are exposed to state-of-the-art instrumental techniques, including acoustic and aerodynamic assessment of the vocal tract, videostroboscopy, basic audiometry, tympanometry, otoacoustic emissions, evoked potentials, cochlear implants, real ear measurements, hearing aids and assistive listening devices. Research in communicative disorders is welcome.

Head and Neck Surgery

The Section of Head and Neck Surgery is committed to excellence in patient care while providing the resident outstanding training in both the breadth and depth of head and neck surgery, oncology and reconstruction. Approximately 500-600 new patients with a variety of head and neck neoplasms and malignancies are seen each year. In addition to patients with head and neck squamous cell cancers, a substantial volume of patients with thyroid, parathyroid and salivary gland neoplasms and other unusual neoplasms of the head and neck are treated.

Under the close guidance and tutelage of experienced head and neck surgeons, residents are expected to develop appropriate surgical skills and a framework for decision-making in the preoperative evaluation of patients, intra-operative judgment, and postoperative care and long-term management of patients with head and neck tumors. Residents are expected to learn the fundamental principles and decision-making in head and neck reconstruction, and are exposed to a variety of reconstructive options, including local flaps, regional flaps and microvascular reconstruction. Residents also learn how to interact with and manage patients in a multidisciplinary setting through a weekly Tumor Board, where patients are treated in conjunction with medical oncology, radiation oncology and nursing and, when needed, speech pathology and dentistry.

Scope of Otolaryngology Services

In addition to providing general adult and pediatric otolaryngology services, the institute provides several highly specialized tertiary care services through its various sections.
Nasal and Sinus Disorders

During the residency experience, physicians will be exposed to the breadth of nasal and sinus surgery through their rotations with staff members. This experience is aimed at preparing physicians to evaluate, diagnose and treat all disorders affecting the nose and sinuses. This includes the allergic individual and the patient with malignancy of the nasal passageways and skull base. A formalized clinical and didactic program in anatomy, pathophysiology, patient care and endoscopic sinonasal surgery is most comprehensively addressed during each of three rotations. Surgical training in endoscopic sinus and skull-base surgery is refined through progressive skill-building during outpatient examinations, cadaver dissections and operating room experience.

Procedures performed include septoplasty, turbinate surgery and functional rhinoplasty, as well as endoscopic sinus procedures for rhinosinusitis, repair of cerebrospinal fistula/encephaloceles and resection of other skull-base lesions. Traditional sinus procedures, including osteoplastic frontal sinus surgery, frontal sinus trephination, Caledwell-Luc procedures and maxillectomy are also taught with their proper indications. Endoscopic diagnosis is stressed along with the importance of appropriate medical therapy, allergy management and postoperative care for patients with chronic sinonasal disease. Residents are taught interpretation of CT and MRI studies. This section is also committed to managing obstructed breathing during sleep (snoring and apnea). Treatment options include cryotherapy, laser-assisted surgery and radiofrequency probe technology. The breadth of the residency experience is so complete that we are also able to offer one of only six rhinology fellowships in the country.

The formal didactic program is offered through a two-year lecture series given by faculty on a regular basis. A videotape library that highlights endoscopic sinus surgery and rhinoplasty supplements this. Three teaching conferences have been instituted since the inception of this nasal and sinus service. The first is weekly Radiology Teaching Rounds and the second is a monthly interdisciplinary conference named Upper Airway Inflammation. Allergy and Immunology, Infectious Disease, Microbiology, Otolaryngology, Pathology and Pulmonary Medicine attend the latter. A third monthly conference entitled “Skull Base Conference” is attended by Neurosurgery, Otolaryngology, Plastic Surgery and Radiology.

Current areas of clinical research within the section include computer-aided surgery, endoscopic management of neoplasia, inflammation and inverted papilloma, head position and the administration of topical intranasal medications, radiographic analysis of human sinus anatomy, gastroesophageal reflux and nasal symptoms and endoscopic orbital decompression for Grave’s disease. An opportunity for basic science research of eosinophils and rhinosinusitis exists. Plans are under way for research in inflammatory mediators/chemotaxis in chronic rhinosinusitis as well as clinical research opportunities in assessment of outcomes of rhinosinusitis.
Pediatric Otolaryngology

The Section of Pediatric Otolaryngology is fully integrated into the Head and Neck Institute. It is also an important part of the pediatric services provided by Cleveland Clinic Children’s Hospital, including its 17-bed, Level III Neonatal Intensive Care Unit.

The section has seen a dramatic growth in the demand for patient care in recent years. The spectrum of clinical problems is diverse. About one-third of the children seen are healthy and have typical ear, nose and throat diseases. Another third have similar common pathologies, but these are chronically ill or syndromic children who have more complex management issues. The final third are children who have surgically challenging illnesses.

Clinic pediatric otolaryngologic researchers are looking at the indications for tracheotomy in critically ill children in the ICU setting to see how long a child can be intubated without suffering airway complications. The findings demonstrate that children respond like neonates to careful airway management with an endotracheal tube and only require tracheotomy for specific airway lesions, which are generally unrelated to the need for or the duration of intubation.

Several years ago, there was a burst of enthusiasm for laser ablation for chronic cryptic tonsillitis, which resulted in very little postoperative pain and no problems with bleeding. This suggested that partial tonsillectomy may be a less-painful alternative to traditional total tonsillectomy for children suffering from obstructive sleep-disordered breathing.

Cleveland Clinic physicians have done more than 150 of these minimally invasive procedures using an endoscopic shaver and have found that the children have less postoperative pain, recover faster and have fewer postoperative hemorrhages. The tonsillar capsule is left intact and acts as a biological barrier to exposure and injury of the pharyngeal muscles. The decreased postoperative bleeding is mostly likely due to the way the tonsil is resected, from the airway out toward the capsule, thus staying within the arborization of the tonsillar feeding vessels.

Researchers have received an NIH grant to develop and clinically test a small, thin ultrasound probe that potentially could differentiate the variable consistencies of middle-ear fluid.

Vestibular And Balance Disorders

The Section of Vestibular and Balance Disorders provides laboratory diagnosis, medical neurotology and vestibular rehabilitation of patients with dizziness, disequilibrium and imbalance. An outpatient clinic manages self-referred patients and those referred from Otolaryngology, Neurology, Internal Medicine and other departments. Residents rotate through the Section of Vestibular and Balance Disorders to learn about test administration and interpretation.

The section has state-of-the-art, computer-based electroneystagmography and rotational chair and posturography, with the world’s largest database of laboratory test results. As Northeast Ohio’s only comprehensive laboratory, the section offers regional referral laboratory services for physicians outside Cleveland Clinic.

Clinical and basic science research is ongoing, particularly in the areas of vestibular-evoked potentials, outcome of home-based vestibular rehabilitation and genetics of motion sickness.
Cleveland—A Great Place to Call Home

Located on the shores of Lake Erie, Cleveland truly lives up to its image as “the New American City.” A vibrant and versatile metropolitan area, Cleveland is a five-time winner of the National Civic League’s “All-America City” award.

Arts And Entertainment

Cleveland Clinic’s campus is very close to University Circle, Cleveland’s cultural center. University Circle has one of the greatest concentrations of museums, cultural activities and churches in the country. The Cleveland Museum of Art houses one of the country’s most highly acclaimed art collections. The Cleveland Orchestra, one of the finest in the world, performs at the recently restored, elegant Severance Hall. The Cleveland Botanical Garden glasshouse replicates the ecosystems of Costa Rica and Madagascar, and the Cleveland Museum of Natural History’s multimillion-dollar planetarium offers state-of-the-art sky shows.

Cleveland boasts a number of other distinguished performance venues. Blossom Music Center, Quicken Loans Arena, Wolstein Center and Cleveland Browns Stadium attract big-name pop, rock, country and jazz performers. The Cleveland Playhouse is one of America’s foremost professional regional theaters. Playhouse Square offers touring Broadway shows, the Great Lakes Theater Festival (a professional classical theater company), the Ohio Ballet and the Cleveland Opera. The Rock and Roll Hall of Fame and Museum and the Great Lakes Science Center are popular spots for tourists and residents on Cleveland’s waterfront.
Recreation And Sports

The Cleveland Metroparks Zoo, with its world-class Rain Forest and Australian Adventure, and Geauga Lake Family Amusement Park are both within a short drive. Cedar Point Amusement Park, home to many of the world’s largest roller coasters, is just an hour-and-a-half away. When it comes to professional sports, Cleveland has something for everyone: Major League Baseball’s Cleveland Indians, the National Football League’s Cleveland Browns, the National Basketball Association’s Cleveland Cavaliers and two farm teams for the Indians (Akron Aeros and Lake County Captains). And every summer, Indy car racing fans welcome the Cleveland Grand Prix.

As the Great Lakes city on America’s “North Coast,” Cleveland offers abundant lakeshore for sailing enthusiasts, boaters, swimmers and fishermen to enjoy. Outdoor enthusiasts of all ages also enjoy the “Emerald Necklace,” Cleveland’s Metroparks system that encircles the city. The Metroparks offer picnicking, hiking, boating on inland lakes, swimming, golf, tennis, horseback riding and cross-country skiing, as well as an impressive year-round schedule of nature programs for the entire family.

Residential Areas

Cleveland has nearly 80 residential communities and a score of other suburbs located just beyond the metropolitan area. Affordable housing is one of the attractive aspects of Cleveland. Whatever your housing preference – Tudor, contemporary, colonial, or high-rise – you will find the apartment, home or condominium of your choice here. Fine residential areas are located within minutes of Cleveland Clinic, some of which have a national reputation for their elegance and beauty. Excellent private as well as public schools characterize Cleveland’s family-oriented suburbs. And hundreds of places of worship for various faiths dot the Greater Cleveland area.

A More Affordable Lifestyle

Cost of living is an important consideration when deciding on an area in which to live. In Cleveland, you have the best of both worlds: major city amenities and a better quality of life.
The Cleveland Clinic Foundation is an independent, not-for-profit, multispecialty academic medical center. It is dedicated to providing quality specialized care and includes an outpatient clinic, a hospital with more than 1,000 available beds, an education division and a research institute.

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