In this edition of the MUSC Department of Otolaryngology (ENT) Newsletter, we highlight a number of areas in which our clinicians excel. Our physicians are fellowship trained and have focused their practices on specific areas or subspecialties within the field of ENT (e.g., sinus, ear, head and neck tumors, facial cosmetics, and pediatric ENT). Their extra training and depth of experience in their area of specialty provides unparalleled expertise.

As several of the articles detail, our physicians utilize the very latest technologies, such as robotics, and have access to a number of clinical trials. Whether your problem is routine or complex, you can be assured of receiving exceptional care in one of our 4 offices.

We are proud to be listed within the top 40 ENT Departments – Hospitals in the United States, and even more pleased that our patient satisfaction scores average above the 90th percentile by national standards (Press Ganey). We look forward to the opportunity of serving you in the near future.

Paul R. Lambert, M.D., Professor and Chair
Department of Otolaryngology – Head & Neck Surgery
Robotic Thyroid Surgery

Dr. Joshua Hornig and Terry Day have begun to offer transaxillary robotic thyroidectomy, which is the latest innovation in the management of thyroid and parathyroid disease. This allows patients to have their thyroid and parathyroid removed without a neck scar. The psychological and physical benefits are immediately apparent in patients after their surgery.

The surgical robot is already widely used in other surgical specialties with great success. The advantages of using this technology are readily apparent: true high definition 3D visualization, four robotic arms that can be fitted with any type of wristed instrumentation, magnified visualization and scaled movements. These advantages are remarkably valuable when working on delicate and sensitive structures.

Thyroid and parathyroid surgery has traditionally been performed through a neck incision just above the collar bone. While there have been many refinements to thyroid surgery, patients continue to be unsatisfied with having a neck scar. From a surgical standpoint, safely performing these procedures depends on clear visualization of important nearby nerves and glands. For the past century, this involved the creation of a large incision.

By approaching the thyroid or parathyroid through an incision in the axillary fold (underarm) and using the DaVinci surgical system, we are able to eliminate the neck scar and reduce post-surgical numbness of the front of the neck. The recovery time for patients is similar to traditional surgical techniques.

The DaVinci system, which is being used widely for prostate surgery, hysterectomy, and other procedures, offers superior visualization compared to traditional open thyroid surgery. DaVinci enables surgeons to perform even the most complex and delicate procedures with unmatched precision. Your surgeon’s hand guides the DaVinci instrument. Unlike standard surgical instruments, these are much smaller. Some of the tools are shorter in length than your fingernail and about as thin as the edge of a half dollar. This allows for very small and precise movements. The DaVinci surgery system cannot be programmed or make decisions on its own. It requires every maneuver to be performed with direct input from your surgeon.

Currently, we limit the surgery to non-obese patients with unilateral thyroid disease who have not had previous surgery or radiation to the neck.

Your primary healthcare physician can refer you for an appointment by calling 843-792-2998. We are excited to continue to offer the latest advances in thyroid surgery, and look forward to managing your thyroid and parathyroid disorders. Please visit our website for more information, www.muscENT.org.

Endoscopic Thyroid Surgery

For patients with thyroid or parathyroid disorders who do not qualify for the robotic thyroid surgery, endoscopic surgery may be a good option.

Traditional surgery involves making a large incision in the neck. The MUSC Department of Otolaryngology has two surgeons, Joshua D. Hornig, MD, FRCS(C), and Eric J. Lentsch, MD who can offer a much less invasive approach. They have some of the largest combined expertise in the country. With this endoscopic procedure, a very small incision about a half an inch in length is made, and special instrumentation and cameras are used to do all the work underneath the skin.

“I think uniformly my patients have chosen to have the endoscopic approach when it’s feasible. I think they like the idea of a smaller incision, and they like other advantages which is less post-operative pain, earlier discharge home, sometimes the same day”, says Dr. Lentsch.

To learn more about Drs. Hornig and Lentsch, and the clinical services they offer, please visit our website www.muscENT.org.
**Why do I Have Sinus Congestion?**

Sinus congestion frequently brings patients in to see an Ear, Nose and Throat doctor. Symptoms that are attributable to the nasal cavity can sometimes be difficult to differentiate from those that originate in the sinuses.

**Nasal Cavity Problems** If nasal obstruction or trouble breathing is the primary issue, the causes are typically divided into mucosal vs structural problems. Mucosal problems are those conditions, such as viral infections, allergies or at times, bacterial infections, that cause the lining inside the nasal cavity to swell. If your nasal obstruction comes and goes or responds to over the counter medications like Neosynephrine (Afrin), then it is probably due to a mucosal cause. Long term treatment for mucosal conditions consists of topical nasal steroids, nasal or oral antihistamines and possibly allergy treatments. If your nasal obstruction is constant or one-sided and does not improve with nasal sprays, then a structural problem, such as a deviated septum, is the most likely cause.

Structural problems that do not respond to medications may need surgery. Evaluation by an ENT doctor will make sure that unusual causes of nasal obstruction, such as tumors, are not playing a role.

**Sinus Conditions** If your sinus congestion is more localized to the areas around the eyes or face, but breathing through your nose is not a problem then you may have sinusitis. True sinusitis is often associated with thick, yellow-green drainage. Oftentimes physicians need to obtain a CAT scan in order to determine if congestion or pressure around the eyes is truly related to sinus infections. If sinus infections or nasal polyps are present, medical therapy is the first line approach with surgery saved for the most severe cases. If your CAT scan does not show signs of inflammation, then causes other than sinusitis should be investigated, as antibiotics, steroids and surgery are typically not effective.

The Bottom Line At times it can be difficult for patients and health care providers to separate nasal conditions from sinus conditions, but it is critical to make this distinction in order to ensure that the proper diagnosis and treatments are instituted. In cases where it is not clear, a CAT scan can be useful in determining if sinus inflammation is present.

**Indications for getting a sinus CT**

- In preparation for surgery when medical therapy has not improved symptoms
- Concern for infection spreading to brain or eye
- Symptoms without identifiable cause, such as persistent nose bleeds or headache
- To look for unusual anatomy that may contribute to one of the above conditions

**The MUSC Nose & Sinus Center is a National Center of EXCELLENCE**

MUSC’s Nose and Sinus Center has been designated as a “National Center of Excellence” as a model of the best in nose and sinus health care. The Center’s mission is to serve as a leader in promoting the highest standards of medical care for patients with diseases of the sinuses through patient care, teaching and the discovery of new knowledge.

**Services Offered**

- Minimally invasive surgery with computerized guidance, balloon sinuplasty and the latest powered instrumentation.
- Endoscopic resection of sinonasal/skull base tumors using a multi-disciplinary approach with the only fellowship trained sinus team in South Carolina.
- Cutting edge topical therapies for allergic and non-allergic rhinosinusitis.

**Clinical Areas**

In addition to the evaluation and treatment of adult and pediatric sinusitis, The Nose & Sinus Center of MUSC treats patients with a variety of other disorders including:

- Cerebrospinal fluid leaks and encephalocleses
- Congenital nasal disorders
- Cystic fibrosis
- Nasal obstruction
- Nasal polyposis
- Pituitary tumors
- Sinonasal tumors
- Skull base tumors (such as inverted papilloma)
- Sarcoïd
- Septal deviation and turbinate hypertrophy
- Smell and taste disorders
- Some eye disorders (Graves exophthalmos, tear duct obstruction)
- Inhalant allergies

Visit our website to view related videos, listen to our podcasts, read about our doctors, and learn more about what the MUSC Nose & Sinus Center has to offer.
Chronic Ear Disease

Chronic ear diseases encompasses 2 primary problems: eardrum perforations and cholesteatoma. These conditions can cause a variety of ear symptoms, but the most common are ear drainage and loss of hearing. Ear pain is uncommon and usually means an acute otitis media (the typical ear infection of young children) or otitis externa (“swimmers ear”).

Both an eardrum perforation and a cholesteatoma (skin cells that have grown behind the eardrum and, often, into the mastoid bone behind the ear) almost always require surgery. A perforation is less urgent and, in fact, we may delay surgery in a very young child if he or she is otherwise asymptomatic. In general, children of early school age typically have higher success rates of closure of the perforation than do children less than age 5. Overall, we anticipate a 90% chance of success.

A cholesteatoma usually forms in a weak area of the eardrum, which then forms a depression, called a “retraction pocket” (see figure). This pocket collects skin cells that can migrate into the middle ear and damage the ear bones resulting in hearing loss. The skin cells also form a favorable environment in which bacteria can multiply, resulting in frequent ear drainage. The underlying problem in retraction pocket formation appears to be a dysfunction of the eustachian tube.

In almost all cases of a cholesteatoma, surgery (tymanoplasty with or without mastoidectomy) is needed. The aims of the surgery are to remove all the cholesteatoma, rebuild the eardrum, and repair or replace damaged ear bones. Titanium is the material of choice for artificial ear bones, with excellent hearing outcomes. We recently published our results with titanium middle ear prostheses. This experience represents one of the largest published in the United States; it can be read at the following website www.doi.wiley.com/10.1097/MLG.0b013e3181bd807.

Drs. Paul Lambert and Ted Meyer are fellowship trained surgeons who limit their practice just to the treatment of ear problems, including eardrum perforations and cholesteatoma. Between them they have over 38 years of experience, and have performed more than 1,000 surgeries for chronic ear disease.

To learn more about chronic ear disease, Drs. Lambert and Meyer, and the clinical services they provide, please visit our website www.muscENT.org.
What is a Pediatric Otolaryngologist?

If your child needs surgical or complex medical treatment for illnesses or problems affecting the ear, nose, or throat, a Pediatric Otolaryngologist has the experience and qualifications to treat your child. Many general otolaryngologists provide surgical care for children. However, in many areas of the country, more specialized otolaryngology care is available for children.

What kind of training do pediatric otolaryngologists have?

Pediatric otolaryngologists are medical doctors who have had
• Five years of residency training in otolaryngology and head and neck surgery
• They then complete an additional 1 or 2 years of fellowship training in programs at a large children’s medical center

Pediatric otolaryngologists treat children from the newborn period through the teenage years. They choose to make pediatric care the core of their medical practice, and the unique nature of medical and surgical care of children is learned from advanced training and experience in practice.

What types of treatments do pediatric otolaryngologists provide?

Pediatric otolaryngologists are primarily concerned with medical and surgical treatment of ear, nose, and throat diseases in children. Pediatric otolaryngologists generally provide the following services:
• Diagnosis, medical and surgical treatment of ear, nose, and throat disorders, and head and neck diseases
• Consultation with other doctors when ear, nose, or throat diseases are detected

Where can I find a pediatric otolaryngologist?

Pediatric otolaryngologists practice in a variety of medical institutions including children's hospitals, university medical centers, and large community hospitals.

Pediatric otolaryngologists — the best care for children

Children are not just small adults. They cannot always say what is bothering them. They cannot always answer medical questions, and are not always able to be patient and cooperative during a medical examination. Pediatric otolaryngologists know how to examine and treat children in a way that makes them relaxed and cooperative. In addition, pediatric otolaryngologists use equipment specially designed for children.

If your pediatrician suggests that your child see a specialist for a problem with his ears, nose, or throat, a pediatric otolaryngologist has the widest range of treatment options, the most extensive and comprehensive training, and the greatest expertise in dealing with children and in treating children’s ear, nose, and throat disorders.

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DEDICATED TO THE HEALTH OF ALL CHILDREN®

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2125 Charlie Hall Blvd., Charleston, SC | Call 792-3531

Charleston’s only complete Pediatric ENT care.
www.muscENT.org

Multidisciplinary Pediatric Support
• Anesthesiology
• Audiology
• Cardiothoracic surgery
• Gastroenterology
• Pulmonology
• Speech/language pathology

Multidisciplinary Pediatric ENT Clinics
• Craniofacial Clinic
• Down Syndrome Clinic
• Evelyn Trammell Institute for Voice and Swallowing
• MUSC Airway and Aspiration Center for Children
• Velopharyngeal Insufficiency Clinic

Our uniquely-trained Pediatric Ear, Nose and Throat specialists offer comprehensive care for:
• Airway disorders
• Chronic ear infections
• Cleft lip and palate
• Hearing problems
• Hoarseness and vocal disorders
• Masses of the neck and face
• Sinus and nasal disorders
• Sleep apnea and sleep disordered breathing
• Speech disorders
• Swallowing disorders
• Tonsil and adenoid evaluation
The Medical University of South Carolina has been named as one of America’s Best Hospitals for Ear, Nose & Throat care by U.S. News & World Report. Recent satisfaction surveys reveal that our ENT doctors consistently provide the professional quality health care that patients come to expect.

Our ENT physicians have been fellowship trained through some of the very best programs in the country and limit their individual practices to:

- Facial Plastic Surgery
- Oncology (Tumors of the head and neck)
- Otology (Ear disorders)
- Pediatric ENT
- Rhinology (Sinus and allergy disorders)

Our fellows are trained in:

- Facial Plastic Surgery
- Reconstructive Facial Surgery
- Functional Rhinoplasty
- Botox / Injectables
- many other procedures available

Botox Clinics

Fridays in Mt. Pleasant: Sep 10, Oct 8, Nov 12, Dec 3
1:00pm - 3:40pm
MUSC ENT Associates • 1280 Johnnie Dodds Blvd.

Saturday in North Charleston: Sep 11, Dec 4
8:00am - 2:00pm
MUSC Specialty Care North • 8992 University Place, 2nd Floor
Beside Charleston Southern University, behind Waffle House

--- Appointment Scheduling ---

Otolaryngology
Head & Neck Surgery

Downtown Charleston Office
135 Rutledge Avenue, MSC 550
2nd floor • Rutledge Tower
Charleston, SC 29425-0550

Hollings Cancer Center
86 Jonathan Lucas Street
3rd Floor, Cooper Pavilion
Charleston, SC 29425

MUSC ENT Associates • East Cooper
1280 Johnnie Dodds Blvd., Suite 205
Mt. Pleasant, SC 29464

MUSC Specialty Care • North
8992 University Place • 2nd floor
North Charleston, SC 29406

MUSC Pediatric ENT • West Ashley
2125 Charlie Hall Blvd.
Charleston, SC 29414

Call 843-792-3531 for an appointment
Downtown | Mt. Pleasant | North Charleston

www.muscENT.org