Coordinated Care  
*The Team Approach*

Last month a patient sent us this note:

> “I have recently embraced MUSC for my wife’s care in several areas because it affords a care team for her who have all her medical records in one place..... it helps ensure a comprehensive diagnosis and prognosis that cannot be found [elsewhere].”

> “Please let others know of this ‘Coordinated Care’ concept as I believe they will enjoy the peace of mine it brings where their health and the health of their loved ones is concerned.”

This husband could not have described any better our coordinated efforts and team approach within the ENT Department and within MUSC as a whole. Importantly, we all have immediate access to our patients’ medical history, current medications, diagnostic test results, etc. through the electronic medical record. This helps assure accuracy, avoid duplication, and provide the quality and value our patients expect.

Within our Department we also have immediate access to fellowship trained individuals with particular expertise in each of the areas of the specialty – pediatric ENT; ears, hearing and balance; nose, sinus and allergy; head and neck cancer and thyroid; voice and swallowing; and facial plastics and reconstruction. Such a focus by these individuals allows them to become highly skilled clinicians and surgeons, offering both unparalleled care – from simple problems to the most complex – and access to the latest technologies and research discoveries.

Finally, we have access to over 700 highly skilled physicians representing every possible area of medicine here within the Medical University. We do function as a team, emphasizing “Coordinated Care.” As this patient’s husband related, it is our intention to bring “peace of mind” as we provide you with the best medical care possible.
Continuous positive airway pressure (CPAP) is widely recognized as the best first-line treatment for patients with moderate to severe sleep apnea. CPAP has been shown to reduce snoring, daytime sleepiness, and the risk of heart attack and stroke. In order to get the health benefits of CPAP, sleep apnea patients need to wear the CPAP at least 5 hours a night for 5 nights each week. Unfortunately, up to 30% of sleep apnea patients have difficulty tolerating the CPAP mask over the long-term. Common reasons for quitting CPAP include nasal blockage, facial discomfort, claustrophobia, inability of the mask to stay on the face, and worsening of sleep quality. Too many of these patients have quit using CPAP without seeking out alternative treatment options for the sleep apnea. As a result, they continue to snore loudly and have daytime sleepiness, while increasing their risk of an untimely heart attack or stroke. Therefore, the worst option is for these patients to do nothing.

Currently, there are three treatment options for patients who have failed CPAP. The first option is to try to improve CPAP tolerance by changing the type of mask, the pressure settings, or mask humidity, while providing the patient with appropriate education and support. A second option is an oral appliance (mouth guard) that opens the airway by lifting collapsed tissues away from the back of the throat when worn during sleep. The third option is site-specific surgery that addresses areas of upper airway blockage such as a deviated septum, collapsed nasal valve, enlarged tonsils, long palate and uvula, or tongue level collapse. Both oral appliances and surgery reduce snoring, improve daytime sleepiness, and reduced apnea severity. The treatment option that is best depends on the severity of the apnea, and the likely location of the airway blockage. Therefore, sleep apnea patients who have quit CPAP need to be aware of their treatment options in order to increase their chances of living a long, healthy life.

The MUSC Snoring Clinics provide comprehensive sleep apnea consultations in three locations (Downtown Charleston; Mount Pleasant; North Charleston) for patients who have failed CPAP or who are seeking CPAP alternatives. Discover your snoring and sleep apnea treatment options today!
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.

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

Visit our website to view nose and sinus related videos, listen to our podcasts, read about our doctors, and learn more about what the MUSC Nose & Sinus Center has to offer.
Drainage from the ear. Children may eardrum and a 1-2% risk of chronic perforation in the procedure. The primary risks are a generally fall out without another average of one to two years and than thirty minutes. The tubes last outpatient procedure that takes less from ear tubes to help their hearing. Children who have persistent fluid an option for treatment is placement of tubes. To qualify for ear tubes, children must have a minimum of three ear infections in six months or four ear infections in a year, or have an ear infection that has not responded to multiple courses of antibiotics. Children who have persistent fluid behind their eardrums may also benefit from ear tubes to help their hearing.

Placement of ear tubes is an outpatient procedure that takes less than thirty minutes. The tubes last an average of one to two years and generally fall out without another procedure. The primary risks are a 1-2% risk of a hole (perforation) in the eardrum and a 1-2% risk of chronic drainage from the ear. Children may return to school or daycare the next day after ear tubes are placed.

Children who have multiple ear infections often also suffer from ongoing problems with runny nose or rhinosinusitis. When children have problems with a stuffy or runny nose for more than a month, an evaluation by an otolaryngologist (ENT) is recommended. The most common cause of chronic nasal obstruction and runny nose in children is an enlarged adenoid pad. The adenoids are composed of tissue similar to tonsil tissue located in the back of the nose, above the soft palate. Removal of the adenoids can improve a chronic runny nose and improve nasal breathing as well. Enlarged tonsils and adenoids are a common cause of snoring and sleep apnea in children. If your child snores consistently and has pauses in his breathing during sleep, evaluation of the tonsils is recommended. Often, children experience improvement in these symptoms with use of a prescription nasal spray. If no improvement is seen with the nasal spray, removing the tonsils and adenoids can correct these breathing patterns.

Tonsillectomy with adenoidectomy is an outpatient procedure that takes less than an hour. Children require pain medicine and a diet of liquids and soft food for a few days afterward. Risks included throat pain and approximately 2% risk of bleeding after the procedure. Children may return to school or daycare within a week.

To learn more about these pediatric issues, and our Department visit our website at www.muscENT.org or call for an appointment at 843-792-3531.

**Pediatric Otolaryngologists – the best care for children**

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.

- 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.

- Pediatric otolaryngologists are primarily concerned with medical and surgical treatment of ear, nose, and throat diseases in children.

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

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. Most pediatric otolaryngologists’ offices are arranged and decorated with children in mind. This includes the examination rooms and waiting rooms, which may have toys, videos, and reading materials for children. This helps create a comfortable and nonthreatening environment for your child.

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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American Academy of Pediatrics
Dedicated to the health of all children

**Ent Clinical Highlight**

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**Tubes, Tonsils, and Adenoids**

During the winter season, children are often sick with upper respiratory infections. Ear infections are the most common cause of sick visits to the pediatrician, and the incidence of ear infections peaks during winter and early spring. Generally, isolated ear infections are treated successfully with oral antibiotics such as amoxicillin. When children experience recurrent ear infections or ear infections that do not respond to antibiotics, another option for treatment is placement of ear tubes. To qualify for ear tubes, children must have a minimum of three ear infections in six months or four ear infections in a year, or have an ear infection that has not responded to multiple courses of antibiotics. Children who have persistent fluid behind their eardrums may also benefit from ear tubes to help their hearing.

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Tonsillectomy with adenoidectomy is an outpatient procedure that takes less than an hour. Children require pain medicine and a diet of liquids and soft food for a few days afterward. Risks included throat pain and approximately 2% risk of bleeding after the procedure. Children may return to school or daycare within a week.

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Hearing loss is usually one of 2 types: a) nerve or inner ear and b) conductive or middle ear. Nerve or inner ear losses can be rehabilitated with conventional hearing aids, a bone anchored hearing aid – BAHA (if severe in one ear only), or with cochlear implants (if severe in both ears). This article will focus on the conductive or middle ear type of hearing loss.

In many cases a conductive hearing loss results from damaged to one or more of the 3 middle ear bones (hammer, anvil, or stirrup). This damage is usually secondary to infection (otitis media and/or cholesteatoma), trauma, or certain genetic diseases such as otosclerosis.

For several decades we have been restoring hearing through the replacement of damaged ear bone(s) using prostheses made from plastics or bone substitutes. About 7 or 8 years ago, titanium was first used as a material for these artificial ear bones. (See figure) In my practice of over 25 years, this has been the most significant advance in middle ear hearing restoration, with hearing outcomes superior to all other methods previously used.

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.0b013e31817bd807

Otosclerosis

Otosclerosis was mentioned as one of the potential causes of a conductive hearing loss. This condition usually affects individuals in middle age and is due to an abnormal build up of bone around the 3rd ear bone (the stirrup), preventing it from vibrating properly. This condition results in a hearing loss that progresses over many years, and may only involve one ear. In approximately half of individuals there is a family history of otosclerosis.

An outpatient surgery performed under local anesthesia has a high probability (90%) of restoring hearing. The diseased stirrup bone is removed and a titanium prosthesis is placed.

To learn more about hearing loss and our Department please visit our website at www.muscENT.org or call for an appointment at 843-792-3531.
Clinical Trials

ENT Highlighted Studies
We are currently recruiting participants for the following clinical and non-treatment studies. Each study has age and other requirements and certain clinical exclusions. One advantage of participation is that subjects receive treatment that is free of charge and confidential. Some studies even provide payment to participants.

If you are interested in any of these studies, please call (843) 792-1356.

Otology & Neurotology (Ear disorders): TINNITus TRIAl
Paul Lambert, MD / Ted Meyer, MD, PhD - A Randomized, Double-Blind, Placebo-Controlled, Clinical Evaluation of the Efficacy, Safety and Tolerability of Neramexane in Patients with Subjective Tinnitus (sponsor: Merz/ICON ).
Ted Meyer, MD, PhD / Shaun Nguyen, MD - The Effects of Apical Stimulation of the Cochlea Using Fine Structure Processing (sponsor: MED-EL ).

Rhinology & Sinus Surgery: ALLERGY TRIAl
Rodney Schlosser, MD / Shaun Nguyen, MD – Management of Allergic Rhinitis patients with Nasal Steroids and Low Pressure Nasal Irrigation with Isotonic Saline: A Prospective Pilot Study (sponsor: NeilMed Pharmaceuticals, Inc.).
Rodney Schlosser, MD – Determinants of Surgical/Medical Management Outcomes in Chronic Rhinosinusitis (sponsor: American Rhinologic Society).

Sleep Disorder Breathing: SNORINg TRIAl
M. Boyd Gillespie, MD – Added Value of Sleep Nasendoscopy (sponsor: Olympus).

Pediatric Otolaryngology: EAR INFECTION TRIAL
Christopher Discolo, MD – A Prospective, Multi Center, Non-Randomized Clinical Trial To Evaluate The Ear Effusion Detection and Characterization System (EEDCS) to Detect and Characterize Middle Ear Fluid in Children (sponsor: Otosonics Medical).
David White, MD - PREDICT a multi-institutional study that will explore the impact of ear disease on the quality of life in children ages 6 to 24 months and their families (sponsor: American Academy of Otolaryngology – Head & Neck Surgery Foundation).

Head & Neck Oncology: CANCER TRIAl
Terry Day, MD – Targeting Rapamycin, an mTOR Inhibitor, as a Novel Mechanism-based Therapy for Head and Neck Cancer (sponsor: NIH/National Institute of Dental and Craniofacial Research).
Bonnie Martin-Harris, Ph.D. – A prospective non-randomized clinical trial to evaluate the impact of a novel therapy to effect respiratory-swallow phase patterns and improve swallowing in chronically dysphagic head and neck cancer patients (sponsor: NIH/NIDCD).
Bonnie Martin-Harris, Ph.D. – National Database for the Modified Barium Swallowing Impairment Profile (MBSImP) (sponsor: Bracco Diagnostics, Inc.)

Head & Neck Oncology
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

— Appointment Scheduling —
Otolaryngology .................... (843) 792-3531
Rutledge Tower | East Cooper | North Charleston
Audiology ............................ (843) 792-3531
Evelyn Trammell Institute for Voice & Swallowing .......... (843) 876-7200
Hollings Cancer Center
Head & Neck Clinic ............... (843) 792-9300

Research Participants Needed
The MUSC Department of Otolaryngology - Head & Neck Surgery is conducting research to study a new behavioral swallowing therapy for patients treated for cancers of the head and neck who have received maximum benefit from traditional swallowing therapy.

Compensation is available for participation in the study, and you will not be charged for the procedure. This study is sponsored by a grant from the National Institute of Health, National Institute on Deafness and Communication Disorder.

Participants should be 21+ years of age and meet the following criteria:
• Currently a non-smoker
• Medically stable
• Without severe breathing disorders
• One year out from medical/surgical cancer treatments
• Continued swallowing problems
• Able to swallow at least small sips of liquid

For more information, please call Anita Cheslek at (843) 792-7162.