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HEADLines

Spring 2019

MUSC Health Ear, Nose, & Throat News

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8992 University Boulevard, North Charleston

2. MUSC Children's Health
R. Keith Summey Medical Pavilion
2250 Mall Drive, North Charleston

3. West Ashley Medical Pavilion
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4. Rutledge Tower, Downtown
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5. East Cooper Medical Pavilion
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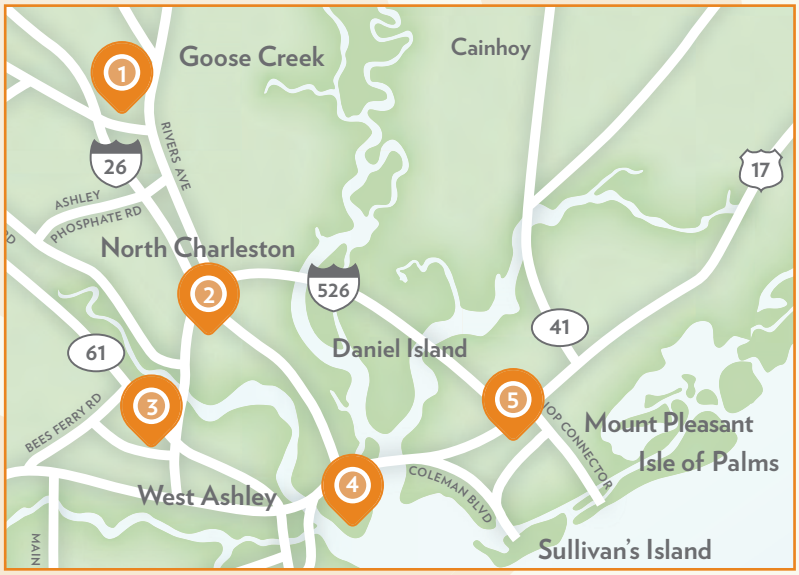

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U.S.News & WORLD REPORT
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2018-19

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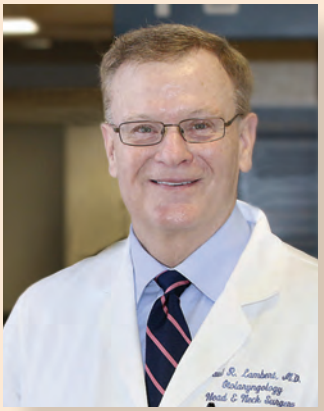
Paul R. Lambert, M.D.

Paul R. Lambert, M.D., Department Chair, MUSC Health Ear, Nose & Throat



Paul R. Lambert, M.D.
Department Chair

In this issue:

HEADLines is the Ear, Nose & Throat health care newsletter published by the MUSC Health ENT Department for Charleston Tri-county and surrounding residents.

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MUSC Health Ear, Nose & Throat Physicians are pleased to offer

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Cryotherapy: A New Treatment for Constant Runny Nose

Zachary M. Soler, M.D., MSc

For most people, a watery runny nose is a short term annoyance they may experience during cold and flu season. Others might experience clear nasal drainage for a few weeks during peak pollen season. However, there are millions of Americans who experience clear nasal drainage on a year-round, continuous basis. Many of these individuals suffer from a condition known as chronic rhinitis.

Individuals with chronic rhinitis (sometimes called vasomotor rhinitis) usually have clear nasal drainage which comes from both nostrils. Sometimes the drainage just occurs spontaneously, whereas in other instances it can be related to a specific activity such as eating or allergies. This symptom can be very bothersome or even embarrassing to patients. At times, the drainage is so bad patients must carry tissues with them at all times and find themselves blowing their noses repetitively.

Proper diagnosis of chronic rhinitis is important, particularly ruling out conditions such as a spinal fluid leak or chronic sinusitis. Once the correct diagnosis is made, patients are usually offered medical treatments in the form of nasal sprays. One of the more effective medications is a nasal spray called ipratropium bromide (Atrovent). This medication works well for many patients, but does require application multiple times per day which can be frustrating.

For patients seeking a more permanent treatment, a new procedure utilizing cryotherapy has been developed to treat chronic rhinitis. Cryotherapy is a technique where extreme cold temperatures are applied to the nasal nerves so that they no longer stimulate nasal drainage. Using a new device called ClariFix, this procedure can be done in the clinic with only local anesthesia. Once the nose is numb, the procedure itself just takes a few minutes, most often with minimal discomfort and no bleeding.

Physicians at the MUSC Sinus Center have been involved in the development of this product and have recently published an article reviewing the evidence supporting its use. To date, the evidence suggests that most patients (67 to 95 percent) report significant improvements in nasal drainage up to a year after treatment. Cryotherapy using the ClariFix device is thus a promising new option for patients suffering from bothersome nasal drainage related to chronic rhinitis. ❑

Kompelli, A. R., Janz, T. A., Rowan, N. R., Nguyen, S. A., & Soler, Z. M. (2018). Cryotherapy for the Treatment of Chronic Rhinitis: A Qualitative Systematic Review. American Journal of Rhinology & Allergy, 32(6), 491–501.

Choking Hazards

Clarice S. Clemmens, M.D.

Choking is a leading cause of injury and death in children, particularly children under the age of three years. More than three-fourths of choking events occur in children less than three years of age, as results of immature chewing abilities and the anatomy of the airway in early childhood. Most choking events are associated with food items, but children may also choke on non-food items, such as coins and toys. There are certain characteristics of items, such as size, shape, and consistency of the item that can increase the risk for choking. Simple preventative strategies can help to avoid a potentially devastating choking scenario in this vulnerable population.

Food items can result in both fatal and non-fatal choking episodes. Approximately one child will die every five days from a choking episode in the United States1. Many of the most dangerous foods include those that are difficult to chew or round in shape, including hot dogs, nuts and seeds, whole grapes, hard or sticky candy, popcorn, chunks of peanut butter, raw vegetables, raisins, gum, and marshmallows. Additionally, children are at increased risk for choking if walking or running while eating, lying down while eating, and eating in the car. In order to minimize the risk of choking while eating, children should sit upright in high chair or chair and be provided with food that is soft and cut into pieces no larger than one half inch. It is also important to supervise children while eating so that signs of choking can be identified quickly and managed appropriately.

Many non-food items are also associated with increased choking risks. Coins and toys account for most of the non-food choking events that are reported. Latex balloons are the leading cause of choking death in children and are a danger to children of all ages. Small pieces of latex balloons can become lodged in the airway and cause an airtight seal which completely blocks the airway. The Child Safety Protection Act was passed in 1994 and requires that choking warning labels be placed on toys which meet specific criteria placing them at high risk for choking. Unfortunately, not all toys are regulated by this Act and some choking hazards may be available without a warning label. A safe and easy test to determine if a toy is a choking hazard is to place the toy inside a toilet paper roll. If it fits entirely in the roll, it is too small for children under the age of three.

Ultimately, choking hazards are all around us and a choking event can have catastrophic consequences for children. There are simple prevention strategies that can be employed to avoid these events. ❑

1. Harris CS, Baker SP, Smith GA, Harris RM. Childhood asphyxiation by food: a national analysis and overview. JAMA. 1984;251(17):2231–2235

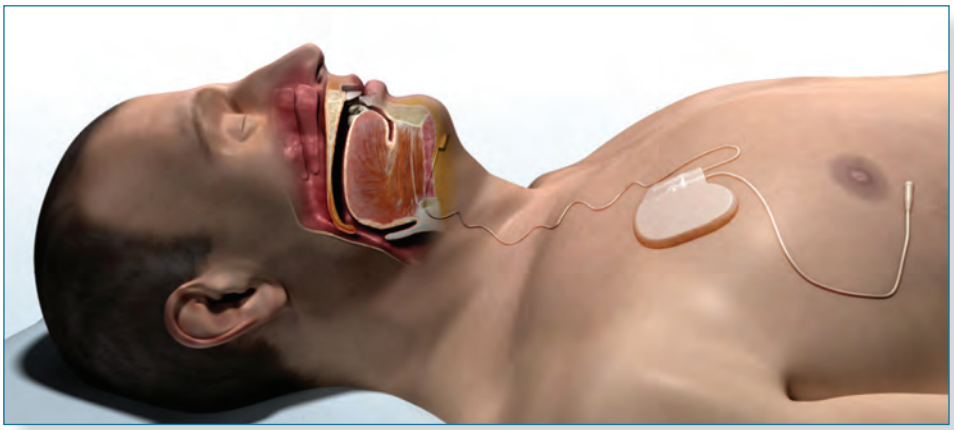
Update on Hypoglossal Nerve Stimulation Therapy for Sleep Apnea

Eric J. Lentsch, M.D., FACS

Background

It is estimated that 22 million Americans suffer from sleep apnea. When left untreated it can lead to high blood pressure, chronic heart failure, atrial fibrillation, stroke, and other cardiovascular problems; it is also associated with type 2 diabetes and depression; and is a factor in many traffic accidents and accidents with heavy machinery, owing to the persistent drowsiness suffered by many OSA patients. OSA can strike people of any age, including infants and children, but it is most frequently seen in men over 40, especially those who are overweight or obese.

The more common treatments of obstructive sleep apnea—continuous positive airway pressure (CPAP)—may be difficult to tolerate. As the condition can have serious, and even fatal, consequences, surgical options are often pursued. The most common surgery for sleep apnea in the past is a uvulopalatoplasty (UPPP); however, results from this surgery are mediocre at best, with about 50 percent actually helped by the procedure, and fewer still actually cured. The FDA recently approved a new device called a hypoglossal nerve stimulator that has a much higher success and cure rate.



How Does the Hypoglossal Nerve Stimulator Work?

Obstructive sleep apnea is characterized by blockage of the upper airway (typically the back of the mouth or throat). When this obstruction occurs, the airway completely collapses and normal breathing during sleep cannot occur. The hypoglossal nerve stimulator is an implanted medical device that works to reduce the occurrence of obstructive sleep apnea by electrically stimulating the hypoglossal nerve to the tongue when you breathe during sleep. This causes a muscle contraction that brings the tongue forward allowing air to pass more freely into the lungs.

Surgical Procedure for Placement

The hypoglossal nerve stimulator must be placed surgically. The main part of the device is implanted under the skin of the upper chest wall, much like a pacemaker. This component includes the battery as well as the part that generates the electrical stimulation. From here, a wire extends to the hypoglossal nerve that actually stimulates the tongue. A second wire is directed to the chest wall to detect the breathing pattern.

Results

The hypoglossal nerve stimulator has excellent results. Unlike other types of surgery for sleep apnea, it has a high cure rate of between 80 and 90 percent. And unlike CPAP, it is very well tolerated with 95 percent patient usage and a 95 percent satisfaction rate. ❑

MUSC participated in the initial trials for the Inspire hypoglossal nerve stimulator and continues to be one of the busiest sites for implantation in the country. If you would like to be evaulated for this procedure call us at 843-792-3531.

Can you do anything for my stuffy ears?

Ted A. Meyer, M.D., Ph.D.

Aural fullness, with or without hearing loss, is a common complaint in an ENT clinic. Perhaps the most common cause of aural fullness is Eustachian tube dysfunction (ETD). A host of medical and surgical problems cause the ears to feel full, so a thorough evaluation by an ENT specialist is required. In patients with ETD, the Eustachian tube does not function properly to allow air to enter the middle ear space from the nasopharynx. Both children and adults with ETD suffer with varying degrees of ear pressure, pain, retracted eardrums, otitis media with effusion, hearing loss, recurrent ear infections and cholesteatoma. If you have flown with a cold and felt pressure or pain in your ears as the plane descended, then you have first-hand experience with Eustachian tube dysfunction and aural fullness. Imagine this as a common or even daily occurrence.

In hopes of improving the function of the Eustachian tube, many patients are given medications such as nasal steroids or decongestants that provide benefit of varying degrees. In addition, every year, several hundred thousand children and adults have pressure-equalization tubes placed to help with the otologic manifestations of Eustachian tube dysfunction. Tubes are great options for many patients, but they are not without problems including otorrhea, hearing loss, continued perforations when the tubes fall out, and cholesteatoma.

We recently published results from a new balloon dilation procedure to directly treat the Eustachian tube in adults 18 and older (Meyer et al., 2018, Otology and Neurotology, 39(7):894-902, PMID 29912819). A balloon is placed with endoscopic guidance into the Eustachian tube and expanded for two minutes. We commonly perform balloon dilation in the operating room under general anesthesia, but patients can choose to have the procedure in the office under topical anesthesia. Nearly all patients undergoing the procedure report significant improvement on a validated Eustachian tube dysfunction questionnaire. Normalization of tympanograms (position and movement of the eardrums) also occurs in the majority of patients. We evaluated the results of the procedure for one year, and we expect longer-term results to be published in the near future.

If you have aural fullness and would like to be evaluated please contact us at 843-792-3531. ❑

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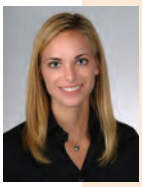

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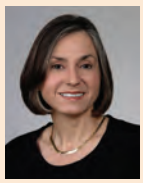

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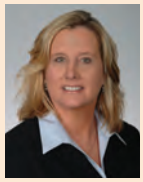

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