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Professor and Chair

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HEADLines is the ENT health care newsletter published by the MUSC Department of Otolaryngology - Head & Neck Surgery for Charleston Tri-county and surrounding residents.

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What You Can Expect From the #1 ENT Group in South Carolina!

U.S. News & World Report 2015

You can expect **Unparalleled Expertise** from 22 ENT physicians who subspecialize (have had additional fellowship training) in the following areas:

- **Head and Neck Tumors**
Thyroid, salivary gland, throat, skin cancers, etc.
- **Pediatric ENT**
All childhood problems from tonsils, adenoids, ear tubes, to complex pediatric issues in the head and neck.
- **Nose and Sinus Disorders**
Chronic sinusitis, tumors, etc.
- **Ear Disorders**
Ear drum perforations, ear bone replacement, chronic infection, hearing loss, vertigo.
- **Voice Disorders**
Chronic hoarseness, cough, altered voice, swallowing issues, etc.
- **Facial Plastics and Reconstruction**
Facial cosmetic needs, rehabilitation of facial disorders (scar revision, facial weakness, etc.)
- **Sleep Disordered Breathing**
Snoring, sleep apnea
- **Allergy**
Testing and treatment
- **Hearing Rehabilitation**
Latest technologies in hearing aids including implantable devices, cochlear implants

What Else Can You Expect?

The Most Advanced Technologies

- **Robotic Surgery**
Head and neck tumors and other disorders
- **Minimally Invasive Surgery**
Cosmetic procedures, thyroid tumors, sinus conditions, salivary gland disorders, voice rehabilitation
- **Gamma Knife (Stereotactic Radiation)**
Alternative to surgical treatment for some tumors of the head and neck

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Feeling Dizzy?

Habib G. Rizk, M.D., MSc

Specialist in Vestibular Balance and Ear Disorders

Dizziness is one of the most common complaints that someone may present with during a lifetime. It is most frequently found in the elderly population, but can also present to a lesser degree in younger age groups. The word “dizzy” derives from the old English word dysig meaning “foolish or stupid” as well as from the word dheu meaning “dust, vapor, smoke, or to rise in a cloud”. It is not surprising, then, that “dizzy”, much like the disease it describes, later became synonymous with the concept of “having a whirling sensation”—a vague and difficult to categorize description. The problem with dizziness is a problem of defining the actual symptom the patient has. In fact, many different symptoms that are difficult to describe are often categorized as dizziness.

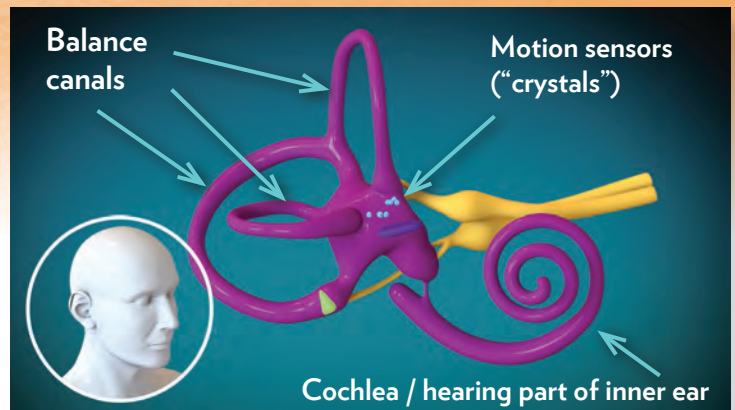
Depending on the description of symptoms a patient has, a specialized physician can begin to decipher the exact source of the problem. For example, an illusion of movement of oneself relative to one’s surroundings is described as vertigo. This feeling is commonly experienced after riding a merry-go-round and then immediately stopping. Other examples of dizziness include a lightheadedness feeling, as is frequently felt by people who are about to faint or lose consciousness.

The body’s balance system has many inputs, including the eyes, ears, and joints of the legs and feet. If any one of these systems is not functioning properly for any reason, the body’s balance system may begin to misinterpret one’s surroundings and result in the feeling of dizziness. For example, patients with diabetes may have a condition known as “peripheral neuropathy.” The condition causes a misfiring of the nerves of the lower extremity—most frequently the feet. Without functioning nerves of the foot, the body’s balance system starts to misinterpret the presence of gravity and causes one to feel unbalanced and unsteady. Similarly, if one or both of our inner ears are not functioning properly, such as can occur from migraine headaches or strokes, our sense of left and right will be unbalanced and we will be unable to move forward easily. Finally, medications that are frequently taken for dizziness, such as Meclizine and Valium, if used long-term can blur one’s sensorium and actually exacerbate the problem. Medications used for other health conditions (especially high blood pressure) can have side effects causing dizziness.

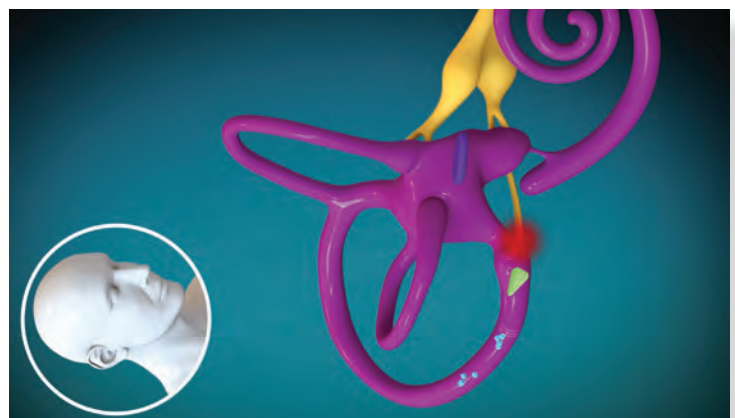
All together, the purpose of the body’s complex balance system is to keep us upright and moving in an intended direction. What makes dizziness so distressing to most patients is that the majority of our



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Normal Inner ear



Benign Paroxysmal Positional Vertigo: Motion sensors are displaced

“inputs” or senses are telling us the correct information, while a few of our senses are telling us the opposite. The brain is left confused as to what is actually the correct representation of one’s surroundings in three dimensional space, leading to an uneasy and confusing feeling.

The **MUSC Vestibular Program** gives patients the opportunity to receive a comprehensive evaluation of their dizziness. Our evaluation starts with a detailed discussion of your symptoms. We feel strongly that it is important you have ample time to express fully your problem. A thorough physical examination of your balance system follows. Next, we complete a variety of vestibular tests to assess the balance system in the inner ears. Depending on the symptoms, we also use a test called posturography to study the movements of the body undergoing different motion stresses. With all of this important information in hand, we will work closely with you and our multidisciplinary team ranging (neurologists, physical therapists, and even psychiatrists) to develop an individual treatment plan.

Below are links to explain some of the most common causes of dizziness: Benign Positional Vertigo as well as some maneuvers that we use to treat it.

<https://youtu.be/mXmIFPJyvZA>

<https://youtu.be/hDP-ACWl7YI>

<https://youtu.be/fDXf9M67RBE>

The Voice Reveals that Which is Unique in Each of Us

Lucinda A. Halstead, M.D. *Specialist in Voice and Swallowing Disorders*

Our voice reflects who we are. It conveys our personality and allows us to communicate with the world around us. The quality of our voice – pitch, tone, inflection – can make or break business presentations, lectures, vocal performances, jobs and daily life interactions. It can invite and cultivate relationships or deter or destroy them. A voice that is rough, squeaky, breathy and difficult to understand isolates a person from those around them, causing frustration and often depression.



1. Cancer of left vocal fold



2. Traumatic polyp of right vocal fold

It is important to have your larynx examined if you develop hoarseness that persists for more than 2 weeks, even if you are a nonsmoker!

Causes of hoarseness range from cancer to poor vocal habits or upper respiratory infections. Cancers of the larynx are most commonly caused by tobacco use in any form, cigarettes being the most common (Picture 1). It is important to realize that

once a person has smoked the equivalent of 1 pack of cigarettes per day for 10 years, they are permanently at risk for developing a cancer in the larynx. The cancer often develops decades after the individual has stopped smoking. This smoking related cancer risk in the head and neck differs completely from the smoking related lung cancer risk, where the relative risk of cancer decreases with smoking cessation.

Poor vocal habits and vocal abuse, reflux, allergies, asthma and many medications can irritate the surface of the vocal folds (cords) causing swelling and stiffness. Left untreated, these irritations can result in non-cancerous lesions such as nodules, dilated vessels, polyps or scarring. Picture 2 is a polyp that developed after prolonged loud vocal use at an outdoor event. These lesions interfere with the normal vibration of the vocal folds and make the voice uncomfortable to use, difficult to understand, and often cause generalized fatigue from the constant effort to produce sound. When diagnosed and treated promptly, these lesions often resolve with a brief course of medication, voice rest and vocal retraining. Swelling in the larynx from reflux, allergies, and infections, particularly fungal infections from steroid inhalers can also be rapidly cured with medical treatment when caught early.

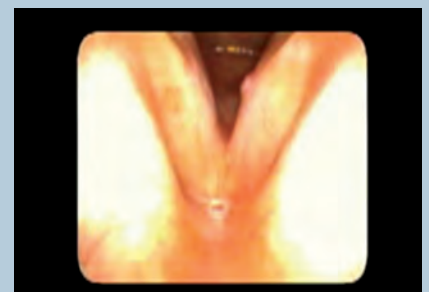
However, lesions that do not respond to medicine and voice therapy can often be treated with a variety of minimally invasive procedures in the office. For example, the KTP laser has the unique ability to change the structure of collagen and scar tissue without cutting the tissue of the vocal fold. The laser energy is applied through a tiny fiber that is passed down a flexible scope and positioned over the vocal fold lesion. The lesions then resolve over 4 to 6 weeks (Picture 3). Another minimally invasive technique involves injecting scar tissue with dilute steroids to disrupt tiny adhesions. This allows the vocal folds to vibrate freely, restoring the voice (Picture 4). If a more serious problem is suspected, cultures and



3a. Vascular polyp of left vocal fold



3b. Vascular polyp after KTP laser treatment



4a. Left vocal fold nodule & scar before steroid injection



4b. Nodule and scar after injection

biopsies can be performed in the same minimally invasive manner in the office to get a diagnosis.

Continued on next page

Clinical Trials

Paul R. Lambert, M.D. *Department Chair, Specialist in Otolaryngology and Neurotology*



Clinical trials provide the patient with the opportunity to participate in the latest therapies for a particular disease or disorder. Before a clinical trial is offered, research – usually in animals and occasionally in small groups of patients – has been undertaken with encouraging results. Based on those findings, the clinical trial is offered to a large group of patients across the country.

If you are a candidate for a clinical trial, your doctor and the trial coordinator will discuss in detail all aspects of the trial – and then you decide whether to participate. There are no costs for the clinical care involved, and you are usually reimbursed for your involvement in the trial.

At any one time, our Department is involved in 15 to 20 clinical trials. We are particularly excited about the following trials:

1. Meniere's disease

For patients with uncontrolled vertigo despite medications, a long acting steroid preparation injected into the middle ear is available. We have been involved with various stages of this clinical trial as the leading U.S. center for over 2 years. Early results appear promising.

2. Tinnitus (ringing in the ears)

Unfortunately, there is no treatment for tinnitus. For patients with recent onset (less than 3 months) an injectable medication into the middle ear is being investigated.

3. Eustachian Tube Dysfunction

Patients diagnosed with Eustachian tube dysfunction for at least one year, with symptoms of ear pain, ear pressure, ear popping or cracking, and/or ear fullness are eligible for this trial. The basis of the trial is to enlarge the Eustachian tube through a balloon dilation involving a procedure performed through the nose.

if you are interested in participating in any of these studies, please call Jack Muus (843) 792-1356.

The Voice Reveals...

(continued)

Treatment of the underlying cause of these non-cancerous lesions is extremely important. Abusive vocal behaviors in particular– chronic throat clearing, yelling or loud talking with tight neck muscles, poor singing technique, smoking, reflux and allergies – must be treated with medicines and, more importantly, with retraining of the voice with voice therapy for the speaking and the singing voice. Without these in combination, the lesions will come back.

As the laryngologist for the Spoleto Festival USA™, I am proud to have established within the MUSC Evelyn Trammell Institute for Voice & Swallowing (ETIVS) a multidisciplinary team specializing in treating voice disorders in all patients and who additionally have the expertise to treat avocational and professional performers of all musical and theatrical genres. Our most recent addition, Melissa Cooke, MS. CCC-SLP, is a speech language pathologist whose special interest in performing voice stems from being a vocal and theater performer. Our singing voice specialist, Deanna McBroom, MM, is a Professor of Voice at the College of Charleston and has worked closely with me for two decades to evaluate patients with issues in their singing voice. She additionally provides targeted singing voice retraining in appropriate cases. This interdisciplinary team provides a comprehensive approach to the treatment of voice disorders for all patients.

LET YOUR VOICE REJOICE - TALK, SING AND BE UNIQUELY YOU!



Lucinda A. Halstead, M.D.
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Restoring Hope in Facial Paralysis

Samuel L. Oyer, M.D. *Specialist in Facial Plastic and Reconstructive Surgery*

Facial paralysis is a devastating condition with a wide variety of causes. Although this condition is uncommon, it can profoundly affect a person's facial function related to vision, nasal breathing, speech, swallowing, and emotional expression. Equally impactful are the effects on a person's appearance, social interaction, and psychological function which can lead to poor self-esteem, isolation from social activities, and depression. Facial paralysis affects every person differently. Some people recover completely without intervention, others recover partially but are left with troubling impairments, and some have absolutely no recovery. Too often, patients are told that "there's nothing more that can be done" for their problems or that their amount of recovery is "good enough."

The goals of treatment of facial paralysis include limiting the symptoms associated with paralysis, improving the functional deficits, and restoring as much facial symmetry as possible to minimize the impact on a person's quality of life. This in turn improves not only the physical, but also the social, emotional, and psychological aspects of the condition.

The treatment options for facial paralysis are as varied as the many causes of the disorder. These can include medication, physical therapy, injectable treatments such as Botox or filler, and surgery. There is not a simple recipe for treatment because every patient is different, and often a combination of treatments are recommended. Patients who

are engaged and actively participate in their own recovery tend to do better, regardless of treatment type, than those who take a more passive role.

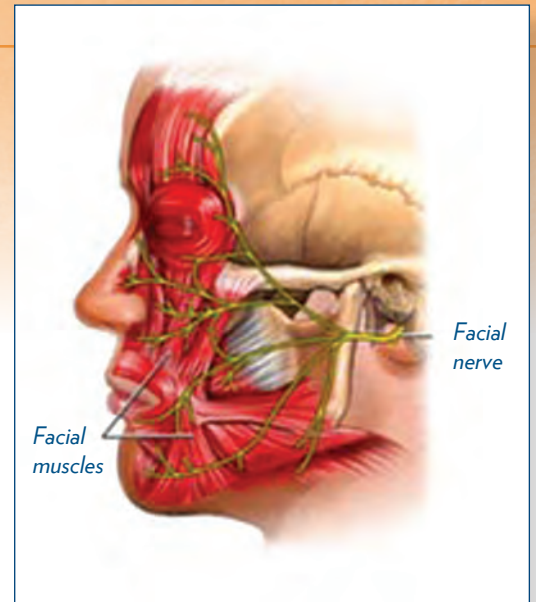


Samuel L. Oyer, M.D.
muschealth.org/ent

While facial paralysis often affects one entire side of the face, much attention is given to restoring a person's smile. A smile is an integral part of a person's identity and loss of a smile not only impacts a person's ability to express emotion, but also impairs how that person is perceived by others. Older treatments focused on fixed suspension of the paralyzed side of the mouth with a sling to improve facial symmetry, but contemporary treatment aims to restore not only the position of the mouth but also movement of the mouth to recreate a smile whenever possible. Depending on the type of paralysis, this is often best achieved by replacing the damaged facial nerve with a different, functional nerve.

The facial nerve travels from its origin in the brain and exits the skull beneath the ear before passing through the parotid gland and dividing into numerous branches across the face to supply over a dozen muscles on each side. It serves as the power source to the muscles, much like an electrical cord plugged into an outlet. When the facial nerve is damaged and can no longer signal the muscles to move, a different nerve can be used as a power source for the facial muscles like splicing in a new cord from a different outlet. This only works if the attachment between the facial nerve and muscles is intact and is limited to the first 1-2 years following onset of paralysis. Donor nerves can come from the intact facial nerve on the opposite side of the face or from a nerve normally directed at a jaw or tongue muscle such as the masseteric or hypoglossal nerve. This nerve transfer takes up to 6 months to begin working after surgery, but can help restore tone to the facial muscles and movement of the natural muscles that create a smile.

If too much time has passed since paralysis or there is no more connection between the facial nerve and muscles, then a different source of movement must be used to recreate a smile. This involves repositioning



a different muscle with its nerve supply from adjacent areas in the face or from distant areas in the body. The temporalis muscle is a chewing muscle that connects the lower jaw to the side of the head above the ear. This muscle can be detached from the lower jaw and attached to the corner of the mouth to suspend it. This means that when that person clenches his or her jaw, the muscle tightens and lifts the corner of the mouth in a smile. Another alternative is to transplant a muscle from the inner leg to the face. This muscle connects to the corner of the mouth and is attached to an artery and vein in the neck for blood supply along with a nerve graft to the opposite side of the face or to the masseteric nerve on the same side. After a period of 4-6 months the nerve attachment will allow movement of the transplanted muscle to create a smile on the paralyzed side.

Although none of these treatments perfectly restores what has been lost in facial paralysis, each can help improve the dynamic motion of a lost smile and rebalance facial symmetry as part of an overall treatment plan. Additional treatments may be involved to help improve symmetry and function around the nose, eyes and forehead. Each of these is tailored to the specific needs of the individual. With proper treatment, many of the negative impacts of facial paralysis can be improved allowing people affected by this condition to maintain a good quality of life and remain active in their work and social lives.

What You Can Expect continued from front page.

- **Cochlear implants and implantable hearing devices**
- **Precision hearing aid fitting**
- **Head and Neck Cancer**
Hollings Cancer Center – the only NCI (National Cancer Institute) designated Cancer Center in South Carolina
- **Sleep Disorders**
The team: ENT, Pulmonary Medicine, Neurology
- **Dizziness**
The team: ENT, Neurology, Ophthalmology, Physical Therapy, Nutrition
- **Voice, Speech & Swallowing Disorders**
The Evelyn Trammel Institute for Voice and Swallowing
- **Facial Plastics and Reconstruction**
The team: ENT Cosmetic Surgery, Cosmetic Dentistry, Physical Therapy
- **Complex Sinus and Skull Base Lesions**
The team: ENT, Neurosurgery
- **Access to Clinical Trials** (See article on page 4)

Paul R. Lambert, M.D.

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



Rejuvenate & Restore MUSC Health Facial Plastic & Reconstructive Surgery

Krishna G. Patel, M.D., Ph.D., Samuel L. Oyer, M.D., Judith M. Skoner, M.D.

Many procedures available including:

- Non-surgical Botox/Injectables
- Reconstructive Facial Surgery
- Eyebrow and Eyelid Surgery
- Treatment and Surgery for Facial Paralysis
- Nose Reshaping

Botox & Filler Clinics

East Cooper
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January 15
February 19
March 18
April 1 & 15

North Charleston
8992 University Blvd
January 27
February 24
March 23

Call 843-792-3531 for an appointment

Downtown | Mount Pleasant | North Charleston | www.muscENT.org

MUSC ENT

Recent satisfaction surveys reveal that our ENT doctors consistently provide the professional quality health care that patients come to expect.

– LOCATIONS –

Downtown Charleston Offices

135 Rutledge Avenue, MSC 550
Rutledge Tower, floors 1, 2, & 10
Charleston, SC 29425-0550

MUSC Health East Cooper

1600 Midtown Avenue
Mount Pleasant, SC 29464

MUSC Health North Charleston

8992 University Place - 2nd floor
North Charleston, SC 29406

– APPOINTMENTS –

Otolaryngology..... 843-792-3531
Downtown Charleston, East Cooper,
North Charleston

Audiology 843-792-3531

Evelyn Trammell Institute for
Voice & Swallowing 843-792-3531

Wendy & Keith Wellin Head & Neck
Tumor Center 843-792-8363



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