

# HEADWAY

NEWS ON ADVANCES IN THE PREVENTION, DETECTION, AND TREATMENT OF HEAD AND NECK CANCERS

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## Endoscopic surgery in Otolaryngology

By *Eric W. Wang, MD*

Associate Professor of Otolaryngology, University of Pittsburgh School of Medicine  
Director of Education, UPMC Center for Cranial Base Surgery

The endoscope has revolutionized surgery for the nose and sinuses by providing a panoramic, high definition view of complex anatomy. The endoscope is a 4 mm narrow metal rod that both carries light and transfers images to an attached digital camera. In real time, the images are projected onto a high-definition external monitor. This technology allows the surgeon to have “an eye inside the patient” rather than looking in from the outside. Otolaryngologists also utilize other tools such as operating microscopes and surgical loupes with headlights to magnify their vision and illuminate the depths of the head and neck. However, the endoscopy has unique attributes. It is unparalleled in taking advantage of natural space like the nostrils or mouth to visualize both disease and normal anatomy. Since the visualization occurs at the end of the endoscope inside the patient, it provides both a close-up yet wide angle view. These unique characteristics of the endoscope allow surgeons to make precise incisions in small spaces.

Endoscopic surgery in otolaryngology began in the nose and sinuses, but has spread to the skull base, ear, larynx and throat. In the 1980's, early leaders in Austria, Germany and the United States first used the endoscope within the nostrils to help treat chronic rhinosinusitis. Functional endoscopic sinus surgery is now one of the most common ENT surgeries performed in the United States and has drastically changed the quality of life of patients suffering from chronic rhinosinusitis. Extending beyond the sinuses, endoscopic surgery through the nostrils was then applied to remove tumors at the junction between the sinuses and the brain. These endoscopic endonasal approaches to the skull base were pioneered, developed and refined at UPMC. The UPMC Center for Cranial Base Surgery has now performed more than 3000 endoscopic endonasal skull base surgeries and remains one of the leading skull base centers in the world. In a similar way, endoscopy is used to diagnose and treat specific diseases of the voice box (larynx). Recently ear surgeons have begun to incorporate the endoscope into the management of chronic ear disease. Even one of the most recent advances in the treatment of head and neck cancer, transoral robotic surgery, also depends upon the endoscope to provide light and visualization.

What does this mean for patients? Now, instead of incisions in the skull and face near the junction of the nose and cheek that split the upper lip, otolaryngologists and neurosurgeons remove these complex tumors from the skull base using the nostrils. Similarly, selected cancers of the base of tongue and tonsil can now be resected with endoscopic visualization

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## Recovering from a harrowing cancer battle

By Pat Malone

Head and neck cancer survivor

Getting a tooth pulled is something that people dread, but an extraction that I received likely saved my life. My frightful, life challenging journey began in the spring of 2016. It all began when I found myself biting the inside of my cheek while eating.

I went to my dentist and he said that I had to have my wisdom tooth out to stop biting my cheek. The dentist took out my wisdom tooth but the gum and cheek did not heal. A biopsy was performed. Shortly thereafter, I received the results and it wasn't good. I was diagnosed with squamous cell carcinoma, a form of skin cancer that developed in the middle and outer layers of my skin. My

break my jaw in a couple of places and take it out, then take my fibula out, shave it, and use it to reconstruct my jaw. It sounds terrifying. But it was my only option. It all seemed surreal.

I've always been pretty healthy, and then this happened. This kind of cancer is generally caused by smoking or chewing tobacco, and I've never done either. I was in disbelief.

My doctor had a frank discussion with me. He told me I wouldn't be the same. He said there would be a new normal, such as my appearance might change, I would feel different, my nose might run, and I wouldn't be able to open my jaw as wide. No more Big Macs for me.

I was in the best hands possible. Although the cancer had spread more than originally thought, the procedure went smoothly. They had to take out

The dentist took out my wisdom tooth but the gum and cheek did not heal. A biopsy was performed. Shortly thereafter, I received the results and it wasn't good.

case was stage 4, which is metastatic cancer or advanced cancer, that has spread to other areas of the body.

Armed with the results of a CT scan, I went to another specialist who confirmed the diagnosis of my doctor. All of this happened shortly after I had been married. Instead of being able to enjoy life as newlyweds, my new wife and I were thrust into the challenges of our lives.

It was devastating but fortunately the cancer was pretty much contained to the lower left jaw, and there was a solution. The solution was for me to undergo a delicate 15 hour procedure called a mandibulectomy with fibula free flap. They told me they would

my left jaw, teeth and all, take out the fibula and put a plate in its place for support, connect the blood vessels, and put a patch of my skin inside my mouth so that the tissue would take. I was out for over 24 hours. When I awakened, I was so glad to still be here.

My wife Andrea couldn't see me until the next day. She told me the staff had been just great, so compassionate and caring, and kept her well informed.

I was in a lot of pain. My jaw was wired shut for three weeks, I had a feeding tube for several days, and I lost 20 pounds.

My wife's support was vital throughout the experience. I wouldn't have been able to get through it without her. We

both were scared and we cried a lot. Our positive attitude along with overwhelming support from our family and friends got us through this.

After the surgery, I had to undergo 30 radiation treatments over six weeks, which left my mouth filled with painful sores. When I finished my radiation treatment, I officially retired after 37 years with the Erie School District. That was a good day in my life.

I know that a bit of good fortune after a simple medical procedure gave me a future. If I hadn't had that tooth pulled, that wouldn't have happened. For sure, it saved my life.

## Swallowing recovery and management following transoral robotic surgery

By Keely J. Anthony MA, CCC-SLP

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Swallowing problems, also known as dysphagia, are common after surgery for head and neck cancer. There are many reasons for this to happen including pain after surgery, swelling, and loss of muscle strength. Recently, minimally invasive techniques using a surgeon-guided robot have allowed head and neck surgeons to remove tumors from the oropharynx (back of the throat) with the goal of avoiding some of the long-term swallowing effects of cancer treatment. At the University of Pittsburgh Medical Center, clinical trials are underway to evaluate this technology's ability to decrease or eliminate the need for radiation after surgery. Despite the hope for better outcomes in the long run, immediately after this surgery

patients can still be expected to have trouble with swallowing, primarily due to pain, loss of muscle strength and swelling. This difficulty can be a roadblock to allowing good nutrition to promote healing.

An interdisciplinary approach plays an integral role in recovery after surgery. Collaboration between Ear, Nose, and Throat (ENT) surgeons, nutritionists, and Speech-Language Pathologists (SLP) is important for swallowing recovery and management. Following robotic surgery one can expect to experience difficulty swallowing both liquids and solid foods. A Speech-Language Pathologist (SLP) evaluates a patient after surgery to determine the safest oral diet to avoid aspiration (food/liquids entering the airway) or difficulty clearing the food/liquids through your throat. Sometimes foods need to be softer or pureed (blended) and liquids may need to be temporarily thickened. The SLP will assess the utility of swallowing strategies such as tucking your head down or rotating your head to one side to prevent food/liquids from entering the airway. Strategies may also improve clearance of food/liquids through your throat and can decrease pain when swallowing. Nutritional supplements may be beneficial in the short term to ensure that patients are able to maintain adequate nutrition/hydration.

Data collection here at UPMC has shown that 89% of patients are safely initiated on some form of an oral diet on the first day following surgery. Additionally, 97% of patients are cleared for an oral diet prior to discharge from the hospital. However, some patients continue to have difficulty maintaining adequate nutrition/hydration immediately following surgery, therefore additional artificial nutrition (tube feeding) is required. This occurs in approximately 14% of patients. Once discharged, it is important that patients continue to comply with the prescribed pain medication regimen, recommended

diet modifications, and swallowing strategies.

Patients may experience difficulty swallowing up to 1-2 weeks following surgery, however 98% can expect to be taking an oral diet at 1 month with 80% back to a regular diet without any restrictions. During the first month following surgery, patients can expect to be closely monitored by the Speech-Language Pathologists and ENT surgeons. Our interdisciplinary approach has helped to decrease re-admissions within 30 days from 15% to less than 10% over the last 2 years.

Although dysphagia is common following head and neck cancer surgery, with an interdisciplinary approach, the majority of patients can expect to resume an oral diet prior to being discharged from the hospital. Speech-Language Pathologists will evaluate to provide recommendations for appropriate diet consistencies and need for swallowing strategies. At 1 month following surgery, the vast majority of patients will be back to an oral diet with most consuming a regular diet.

## Audiology services in UPMC's head and neck cancer survivorship clinic

By Lori Zitelli, AuD



Hearing is very important for patients who communicate using spoken language. When you are a patient in a hospital or office setting, successful communication is necessary in order to understand your care providers and to participate in shared decision-making. Patients who have untreated hearing loss (i.e., who have hearing loss and do not wear amplification) may be mistakenly identified as unresponsive, confused, or mentally impaired. Untreated hearing loss is linked to a

For additional topics on the prevention, detection and treatment of cancer, including head and neck cancer, visit [http://www.upmccancercenters.com/portal\\_headneck/publications.cfm](http://www.upmccancercenters.com/portal_headneck/publications.cfm) for archived issues of *Headway*.



variety of poor healthcare outcomes including an increased likelihood of experiencing a mistake while hospitalized, higher levels of patient dissatisfaction, increased health care use, and higher healthcare costs.

UPMC's Head and Neck Cancer Survivorship Clinic is an interdisciplinary effort focused on addressing individual survivorship needs. Our team consists of a head and neck surgeon, speech language pathologist, dentist, audiologist, physical therapist, and nurse. The team of providers evaluate you on the day of clinic in order to determine what treatments might be helpful to you. You will leave your appointment with a treatment summary and survivorship care plan.

Untreated hearing loss increases the likelihood of miscommunication between patients and providers. To ensure that significant hearing loss is addressed, the audiology evaluation occurs first. In this way, we can positively impact your care on the day of clinic by providing communication strategies and non-custom amplification to use that day.

The audiologist does a brief assessment (asking questions about your history that are relevant to your cancer treatment and ear history, looking in your ears, and completing a brief hearing screening by having you raise your hand when you hear some soft beeping tones). This assessment allows the audiologist to determine if you have adequate hearing for successful

communication with your providers on that day. If the assessment reveals a significant hearing loss, a simple personal headset amplifier is provided to ensure that any barriers to effective communication caused by a problem hearing conversational speech are addressed. If the individual has personal hearing aids, we ensure that they are functioning. Simple repairs can be done on site and can reduce additional clinic visits in the future that would otherwise be required to address problems with hearing aids.

We make recommendations for other Survivorship Clinic care providers regarding the most effective way to communicate based on the results of the hearing evaluation. If a patient requires an amplifier to communicate, the amplifier is assembled, the headset is placed on their ears, and the microphone is clipped to their lapel so that they don't have to carry it. Other providers are alerted to use communication strategies (using clear speech, remaining face-to-face, ensuring good lighting in the room, and reducing all sources of background noise) when communicating with all patients who have lesser degrees of hearing loss.

The audiologist in Survivorship Clinic also makes recommendations for follow-up care. These recommendations typically include comprehensive hearing evaluations, hearing aid or assistive device evaluations, medical follow-ups, hearing aid follow-ups, and hearing protection. With these recommendations, patients can pursue the care that is needed to help them achieve optimal hearing outcomes.

Several studies have linked untreated hearing loss with irritability, fatigue, depression, social isolation, increased risk to personal safety, reduced job performance and earning power, and diminished psychological and overall health. Whether you are a Head and Neck Cancer patient or not, if you have any concerns about your hearing or just

want to get a hearing baseline, please call our office at 412-647-2030 to schedule a hearing evaluation and begin your journey toward better hearing healthcare.

## Heart and Hands ministry

By *Gloria Bytnar*  
Heart and Hands coordinator

Located in Gibsonsia, Pa. is Cross Roads Presbyterian Church. In 2009, a member of the church, Julie Erickson, introduced her idea to present a blanket to people with various needs for whom parishioners and others had asked to be remembered in prayers. Several of the members, men and women, answered the call and volunteered to help in this worthwhile endeavor. Selecting material, cutting, surging and adding symbolic decorations were some of the tasks.

Early in 2012, we began what we referred to as the "prayer shawl ministry." Along with making and distributing blankets and prayer shawls to those in need, we also made lap robes for organizations such as Catholic Charities, Kane Nursing homes, and several hospice organizations.

In 2015, we were asked by Good Samaritan hospice if we would acquire a non-profit organization called Project of Love which began in Leetsdale, Pa. in 2000. They made and distributed comfort pillows to over 50 locations such as Children's Hospital and many other local hospitals, Hillman Cancer Center, nursing facilities in Allegheny and Beaver counties, hospices and the Little Sisters of the Poor. They even filled requests for comfort pillows outside of Pennsylvania. The founder, Jay Otrhalik, retired to Florida to be with her children. We agreed to

continue the work Jay and her loyal fellow workers had been doing. In our first year, our team made and distributed well over 1,000 comfort pillows.

Some of the materials used in making the comfort pillows, blankets, shawls and lap robes are donated. We purchase the remaining supplies needed to sew and package them. All labor involved is done by members of our church. All

contributions are greatly appreciated. If you would like to donate material, supplies, or anything else, please send your donation to Cross Roads Presbyterian Church Mission Outreach, 3281 Wexford

Road (Route 910), Gibsonsia, Pa. 15044. If you wish to call us, our phone number is 724-935-3636.

At Cross Roads Presbyterian Church, we take Christ's calling us to serve those in need very seriously. Since 2009, those involved in Heart and Hands consider their mission as an extension of His love.



## Head & neck cancer support groups

- A cancer support group, primarily for head and neck cancer patients, family members, and caregivers meets the first Wednesday of each month at UPMC Cancer Center, Upper St. Clair, 200 Oxford Drive, Suite 500, Bethel Park, Pa. To register, call 412-622-1212.
- The SPOHNC (Support for People with Oral and Head and Neck Cancer) support group meeting is held the first Tuesday of each month from 2:30-3:30 pm., 203 Lothrop Street, Eye & Ear Institute, 5th floor, Pittsburgh, Pa. 15213.

## UPMC Department of Otolaryngology head and neck cancer support group: A journey through survivorship

By Tami Wasserman-Wincko, MS, CCC-SLP  
UPMC Department of Otolaryngology

Survivorship begins at the time of diagnosis. Those diagnosed with head and neck cancer may experience lifestyle changes that can greatly impact quality of life. Post-operative pain, changes in appearance from the surgical procedure and impaired speech are a few of the challenges survivors encounter. The side effects from chemoradiotherapy and irradiation therapy can cause thick mucous, dry mouth, change of taste, hearing loss, difficulty swallowing, stiffness, and dental problems. These changes can be so overwhelming and the uncertainty of not knowing what may happen next can lead to anxiety and depression.

The Department of Otolaryngology at UPMC has started a support group (SPOHNC chapter) to help patients who have been diagnosed with head and neck cancer. It is open to all head and neck cancer patients in the region and is designed to benefit all newly diagnosed and long-term survivors. It is moderated by a health care professional and will offer special lectures from other healthcare providers, based on the needs and wants of the group.

### What can a head and neck cancer support group do for me?

A head and neck cancer support group provides a safe place for survivors and caregivers to share their personal journey with others who may have similar experiences. There is no better place to accomplish this than with those who have walked the same path as you. This meeting can provide comfort and encouragement during the most challenging times and help you cope with some of the changes you face as a cancer survivor, regardless if you are



### Multidisciplinary Survivorship Team

Front Row (left to right): Jatta Bluefort, UPMC Department of Otolaryngology, Lori Zitelli, AuD, UPMC Department of Otolaryngology, Marci Lee Nilsen, PhD, RN, University of Pittsburgh School of Nursing. Back Row (left to right): Susan George, PT, DPT, MS, OCS, WCS, UPMC Centers for Rehab Services, Antonia Teruel DMD, MS, PhD, University of Pittsburgh School of Dental Medicine, Tamara Wasserman-Wincko, MS, CCC-SLP, UPMC Department of Otolaryngology, Debra Pickford, BSN, RN, UPMC Department of Otolaryngology, Jonas T. Johnson, MD, University of Pittsburgh School of Medicine

newly diagnosed or a long-term survivor. This group will offer guest lectures from healthcare professionals and provide you with resources that will enhance your knowledge and help you through your journey.

### What is SPOHNC?

SPOHNC stands for Support for People with Oral and Head and Neck Cancer. It is a non-profit organization that was founded in 1991 to support the needs of cancer patients. SPOHNC raises awareness of head and neck cancer by sharing information on their website, [www.spoHNC.org](http://www.spoHNC.org) and through national newsletters. A SPOHNC chapter is a support group that follows the same mission of the organization. The Department of Otolaryngology Support Group will lead patients to additional information provided by SPOHNC.

### When and where is the head and neck support group meeting held?

This meeting is held the first Tuesday of each month from 2:30-3:30 pm., 203 Lothrop Street, Eye & Ear Institute, 5th floor, Pittsburgh, Pa. 15213

For more information about this support group, please contact Tami Wasserman-Wincko at [wassermantl@upmc.edu](mailto:wassermantl@upmc.edu) or 412-647-6439.

### Endoscopic surgery in Otolaryngology

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and advanced robotics using the mouth and oral cavity to access the tumor. This could only happen because of the improved visualization the endoscope provides. In fact, evidence in the medical literature supports that surgery with endoscopic visualization may have better rates of complete removal. For example, esthesioneuroblastoma is a prototype cancer of the skull base and sinus. Endoscopic resection of this type of tumor has a higher rate of complete resection and better overall survival. Also, studies from UPMC have shown improved quality of life after endoscopic endonasal skull base surgery compared with traditional open skull base surgery which uses a craniotomy.

We still face many challenges in the treatment of patients with head and neck cancer. The endoscope provides another tool in our armamentarium to both diagnose and treat these complex diseases. Endoscopic surgery also provides an alternative way to access and remove tumors that could not be otherwise treated without significant challenges or risk. In every aspect of otolaryngology, endoscopy improves our ability to help our patients in the diagnosis and management of their disease.

## Swallowing Disorders Center

The UPMC Swallowing Disorders Center is dedicated in helping patients with swallowing problems as they undergo treatment for head and neck cancer. Early intervention with swallowing exercises has been linked to better quality of life outcomes. It is highly recommended that patients be seen by the swallowing team to begin a therapy program as soon as the plan for treatment has been identified.

The process begins with a swallowing evaluation to assess baseline swallowing function and to identify if posture changes, swallowing strategies, and/or diet modification will help the patient swallow better. While some patients require a feeding tube during the course of treatment, the ultimate goal is to return to eating and drinking as soon as possible. We provide assistance during the transition from a modified diet or tube feedings back to a regular diet. When returning to a regular diet is not possible, we help to develop an individualized plan to take certain foods or liquids safely.

We recently completed a study in which weekly questionnaires were given to eleven patients as they underwent chemo-radiation therapy to help us better understand what patients experience during the phases of treatment. This type of information is helping us tailor our therapy approaches to achieve better outcomes. For most, increased difficulty with swallowing occurs toward the end of treatment and may even last a few weeks after the completion of treatment. Once patients are feeling better, the goal is to re-establish the exercise program and begin aggressive intervention so patients can return to an oral diet safely. The team is also participating in a multi-center study involving a special device to exercise the tongue. The device measures baseline tongue pressures so patients can improve strength with practice and meet specific target goals. Grip strength assessments are also being used in the center to determine if there is a relationship between weakness and dysphagia (difficulty swallowing).

The UPMC Swallowing Disorders Center has two locations:

- UPMC Eye & Ear Institute (Oakland) 412-647-6461
- UPMC Shadyside 412-621-0123

## Clinical trials

For more information about head and neck clinical trials, contact Amy at 412-864-1728 or Denise at 412-864-3759.

## Contact information

American Cancer Society.....	1-800-227-2345
Assistance with Coping.....	412-623-5888
Cancer Caring Center.....	412-622-1212
Cancer Information and Referral Services.....	412-647-2811
Clinical Trials.....	412-864-1728 or 412-864-3759
Eye & Ear Foundation.....	412-383-8756
Face2Face Healing.....	1-844-323-4325
Family Care Giver Education and Support .....	412-623-2867
Gumberg Family Library .....	412-623-4733
Head and Neck Cancer Support Group.....	412-622-1212
Heart and Hands Ministry .....	724-935-3636
Hopwood Library at UPMC Shadyside.....	412-623-2620
Hyperbaric Oxygen Treatment.....	412-647-7480
Our Clubhouse.....	412-338-1919
Pain and Supportive Care .....	412-692-4724
Prostate Cancer Support Group.....	412-647-1062
Satchels of Caring Foundation.....	412-841-1289
Swallowing Disorders Center	
UPMC Eye & Ear Institute (Oakland) .....	412-647-6461
UPMC Shadyside.....	412-621-0123
UPMC Division of Sleep Surgery	
Mercy .....	412-232-3687
Monroeville .....	412-374-1260

American Cancer Society website.....	<a href="http://www.cancer.org">www.cancer.org</a>
Head and Neck Cancer Program website .....	<a href="http://www.upmccancercenters.com/headneck">www.upmccancercenters.com/headneck</a>
Hillman Cancer Institute website .....	<a href="http://www.upci.upmc.edu">www.upci.upmc.edu</a>

## Head and Neck Cancer Program website

Looking for more information about patient services, current research, clinical trials, news and events and other valuable information pertaining to head and neck cancers? Check out the website for the Head and Neck Cancer Program of UPMC Cancer Centers at [www.upmccancercenters.com/headneck](http://www.upmccancercenters.com/headneck).

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