April 2017- Oral Cancer Awareness Month

A note from the author—

Happy Spring NCP friends! This week on the NCP Health Ministry website, we are featuring a newly-rising topic in our national community-- oral, head, and neck cancer. April is the National Awareness Month featuring this very important topic and, although many people have heard of these cancers, not many know the many risk factors for developing this type of cancer.

Below is a great article that was just released March 30, 2017 from the Health Experts from Mount Sinai in New York. After reading the article below, I have provided more information from the National Cancer Institute, Oral Cancer Foundation, American Association of Oral and Maxillofacial Surgeons (AAOMS), Head and Neck Cancer Alliance, American Academy of Otolaryngology, and Oral Health Foundation to help us better understand this fast-rising cancer and how it can be prevented.

Article from Mount Sinai, New York
April Is Oral, Head and Neck Cancer Awareness Month
Article ID: 672132
Released: 30-Mar-2017 9:05 AM EDT
Source Newsroom: Mount Sinai Health System

April is Oral, Head and Neck Cancer Awareness Month and physicians in the Mount Sinai Health System are sharing tips on early prevention and urging high-risk groups to get screened.

Oral, head and neck cancers are among the fastest rising cancers. According to the American Cancer Society, nearly 50,000 Americans will get oral cavity and oropharynx (throat) head and neck cancers in 2017. The American Academy of Otolaryngology says 110,000 people are diagnosed with these cancers in the United States every year,
and 550,000 are diagnosed worldwide. They are prevalent in the tongue, throat, voice box, nasal cavity, sinuses, lips, thyroid, and salivary glands.

While tobacco use and excessive drinking are major risk factors particularly for male patients over the age of 50, human papillomavirus (HPV) is the leading cause of oropharyngeal cancer and incidents are rising dramatically among the younger population. HPV cases make up approximately 60 percent to 70 percent of all tonsil and tongue-based cancers in the country. The Centers for Disease Control and Prevention says 9,000 people are diagnosed with throat cancer caused by HPV annually.

A Harris Interactive Survey shows 71 percent of Americans have not been examined for oral, head and neck cancer. Screening is critical for early detection especially while cancer is in its curable stages.

“The best chance of effectively treating these cancers is early on in the disease and that’s why identification of tumors in their earliest stage improves a patient’s likelihood of survival and the patient’s ability to speak and swallow normally after treatment.” said Ilya Likhterov, MD, Assistant Professor, Otolaryngology, Icahn School of Medicine at Mount Sinai. “While oral cancer is most commonly linked to long-time smokers and drinkers, younger patients can be affected even if they don’t have obvious risk factors. It is very important to have your mouth examined and pay attention to symptoms such as pain, bleeding, trouble swallowing, or if you notice any wound or ulcer in the mouth that is not healing quickly.”

**FREE Oral, Head and Neck Cancer Screenings:** No registration, appointment, or preparation required.
Screening takes 15 minutes, and includes an examination of the neck and inspection of the oropharynx and the mouth.
- Thursday, April 6, 10 am – 2 pm - The Mount Sinai Hospital (Guggenheim Pavilion, 1468 Madison Avenue (at 100th Street)
- Friday, April 7, 10 am – 1 pm – Mount Sinai Downtown-Union Square (10 Union Square East, Phillips Ambulatory Care Center Second floor)

**Facts:**
- Smokers generally develop head and neck cancer in their 60’s.
- Men are twice as likely to be affected because of smoking patterns.
- For HPV-related throat cancer, non-smoking males age 35 to 55 are at highest risk,
although doctors are starting to see more cases arise in women.
• Initial symptoms or oral, head and neck cancer include a sore in the mouth that
doesn’t heal, sore throat, trouble swallowing, lumps or patches in the mouth, changes
in voice, or a lump in neck.
• 50 percent of people with head and neck cancers have very advanced cases by the
time they first see a doctor.

Tips for Prevention:
• Don’t smoke or use other tobacco products.
• Don’t drink alcohol frequently or heavily and combine with tobacco use.
• Limit sun exposure and regularly use sunscreen including lip balm with strong SPF
factor.
• Reduce your risk of HPV infection by limiting the number of sexual partners —having
many partners increases the risk of HPV infection. Using a condom cannot fully protect
you from HPV during sex.
• Maintain proper care of dentures. Poorly fitting dentures can trap cancer-causing
substances in tobacco and alcohol. Denture wearers should have their dentures
evaluated by a dentist at least every five years to ensure a good fit. Dentures should be
removed every night and cleaned and rinsed thoroughly every day.

Mount Sinai’s Breakthrough Treatment
The Mount Sinai Hospital is one of the only institutions in the country testing a vaccine
to treat patients who already have HPV-related tonsil or tongue cancers. Unlike
preventive vaccines for HPV, the vaccine-like immunotherapy developed by Advaxis
activates the immune system against HPV-related cancer cells. Since HPV hides from
the immune system by becoming a part of cells, this immunotherapy better helps the
body better identify those cancerous cells and tricks the immune system into thinking
the cancer cells are an invading bacteria. Research shows that it has the potential to
serve as long-term protection from the HPV-related cancer cells.
Mount Sinai is now conducting phase II of this Advaxis clinical trial. Patients receive two vaccines prior to robotic surgery. Researchers then look at the effects of the immune system on the tumor to see if there’s an immune response. So far, eight patients have participated in this trial and to date, all cases have been successful with no serious side effects from the vaccine.

**Experts Available for Interview:**
- Brett Miles, DDS, MD, FACS, Co-Chief, Division of Head and Neck Cancer Surgery, Mount Sinai Health System; Associate Professor, Otolaryngology, Icahn School of Medicine at Mount Sinai; [http://www.mountsinai.org/profiles/brett-a-miles](http://www.mountsinai.org/profiles/brett-a-miles)
- Vincent Carrao, DDS, MD, FACS, Chief, Division of Oral Maxillofacial Surgery, Department of Otolaryngology/Head and Neck Surgery, The Mount Sinai Hospital; Program Director, Oral Maxillofacial Surgery Residency Program, Icahn School of Medicine at Mount Sinai [http://www.mountsinai.org/profiles/vincent-carrao](http://www.mountsinai.org/profiles/vincent-carrao)
- Ilya Likhterov, MD, Assistant Professor of Otolaryngology, Icahn School of Medicine at Mount Sinai [http://www.mountsinai.org/profiles/ilya-likhterov](http://www.mountsinai.org/profiles/ilya-likhterov)

**Patients Available for Interview:**
Christian Burian- When the 48-year-old father of two from Long Island was first diagnosed with HPV-related throat cancer, his first thought was that he wouldn’t get to see his teenage boys grow up. “It was the worst day of my life, I started planning my funeral,” Mr. Burian explains. His problems first started when he noticed tenderness on the left side of his neck that never went away. A biopsy showed nothing was wrong, but months later he noticed a lump the size of a grape just under his chin. That same day, a doctor diagnosed him with cancer, and referred him to Dr. Brett Miles at The Mount Sinai Hospital. Dr. Miles discovered the cancer spread to three of Mr. Burian’s lymph
nodes. He performed a minimally invasive robotic surgery to remove it. Prior to the procedure, Mr. Burian opted to participate in our Advaxis Phase I clinical trial. Dr. Miles gave him the new vaccine before surgery, which activates the immune system against HPV related cancer cells given the chance that it comes back. “I had no second thoughts about trying the vaccine; it was of minimal risk to me. There’s a significant possibility of a long-term benefit by stimulating the immune system, and I’m excited to help contribute to medical science,” Mr. Burian says. The patient has recovered from the cancer surgery and radiation, and to date has not had adverse effects from the vaccine.

Eleanor Shanley- This 74-year-old’s story highlights the need to pay close attention to symptoms and monitor them. The grandmother of four from New Jersey is now recovering from a rare form of tongue cancer after a dentist pointed out an issue eight years ago, after finding red and white discoloration under her tongue, which was not painful, and referred her to a periodontist. While the periodontist removed parts of her tongue over several years and did frequent testing, those tests repeatedly detected nothing. Ms. Shanley’s symptoms were not worsening but she knew how serious this could be and got a second opinion from Dr. Ilya Likhterov at Mount Sinai Beth Israel, where she was immediately diagnosed with sarcomatoid carcinoma, a relatively unusual and aggressive form of cancer. Dr. Likhterov acted quickly and removed part of Ms. Shanley’s tongue, and then she underwent radiation. She is now cancer-free, and while doctors can’t fully explain what caused her cancer, they believe smoking may have been a factor (even though she had quit 20 years ago). “I am so thankful that I didn’t ignore my symptoms and sought a second opinion. I want others to learn from my story and be persistent when it comes to treatment if you aren’t getting positive results,” Ms. Shanley explains. “I am so grateful for the help of Dr. Likhterov because had this cancer not been detected I might not be alive today. I can now enjoy life with my grandchildren and remain cancer-free.”

**About the Mount Sinai Health System**
The Mount Sinai Health System is an integrated health system committed to providing
distinguished care, conducting transformative research, and advancing biomedical education. Structured around seven hospital campuses and a single medical school, the Health System has an extensive ambulatory network and a range of inpatient and outpatient services—from community-based facilities to tertiary and quaternary care. The System includes approximately 7,100 primary and specialty care physicians; 12 joint-venture ambulatory surgery centers; more than 140 ambulatory practices throughout the five boroughs of New York City, Westchester, Long Island, and Florida; and 31 affiliated community health centers. Physicians are affiliated with the renowned Icahn School of Medicine at Mount Sinai, which is ranked among the highest in the nation in National Institutes of Health funding per investigator. The Mount Sinai Hospital is in the “Honor Roll” of best hospitals in America, ranked No. 15 nationally in the 2016-2017 “Best Hospitals” issue of U.S. News & World Report. The Mount Sinai Hospital is also ranked as one of the nation’s top 20 hospitals in Geriatrics, Gastroenterology/GI Surgery, Cardiology/Heart Surgery, Diabetes/Endocrinology, Nephrology, Neurology/Neurosurgery, and Ear, Nose & Throat, and is in the top 50 in four other specialties. New York Eye and Ear Infirmary of Mount Sinai is ranked No. 10 nationally for Ophthalmology, while Mount Sinai Beth Israel, Mount Sinai St. Luke's, and Mount Sinai West are ranked regionally. Mount Sinai’s Kravis Children’s Hospital is ranked in seven out of ten pediatric specialties by U.S. News & World Report in “Best Children’s Hospitals.”

![Image of HPVRelatedOralCancer](image_url)
How Common are Head and Neck Cancers?
Head and neck cancers account for approximately 3 percent of all cancers in the United States. These cancers are nearly twice as common among men as they are among women. Head and neck cancers are also diagnosed more often among people over age 50 than they are among younger people. Researchers estimated that more than 52,000 men and women in this country would be diagnosed with head and neck cancers in 2012.
**Types of Head and Neck Cancer**
Cancers that are known collectively as head and neck cancers usually begin in the squamous cells that line the moist, mucosal surfaces inside the head and neck (for example, inside the mouth, the nose, and the throat). These squamous cell cancers are often referred to as squamous cell carcinomas of the head and neck. Head and neck cancers can also begin in the salivary glands, but salivary gland cancers are relatively uncommon. Salivary glands contain many different types of cells that can become cancerous, so there are many different types of salivary gland cancer.
Cancers of the head and neck are further categorized by the area of the head or neck in which they begin. These areas are described below and labeled in the image of head and neck cancer regions.

**Oral cavity:** Includes the lips, the front two-thirds of the tongue, the gums, the lining inside the cheeks and lips, the floor (bottom) of the mouth under the tongue, the hard palate (bony top of the mouth), and the small area of the gum behind the wisdom teeth.

**Pharynx:** The pharynx (throat) is a hollow tube about 5 inches long that starts behind the nose and leads to the esophagus. It has three parts: the nasopharynx (the upper part of the pharynx, behind the nose); the oropharynx (the middle part of the pharynx, including the soft palate [the back of the mouth], the base of the tongue, and the tonsils); the hypopharynx (the lower part of the pharynx).

**Larynx:** The larynx, also called the voicebox, is a short passageway formed by cartilage just below the pharynx in the neck. The larynx contains the vocal cords. It also has a small piece of tissue, called the epiglottis, which moves to cover the larynx to prevent food from entering the air passages.

**Paranasal sinuses and nasal cavity:** The paranasal sinuses are small hollow spaces in the bones of the head surrounding the nose. The nasal cavity is the hollow space inside the nose.
**Salivary glands:** The major salivary glands are in the floor of the mouth and near the jawbone. The salivary glands produce saliva.

**Head and neck cancer regions.** Illustrates location of paranasal sinuses, nasal cavity, oral cavity, tongue, salivary glands, larynx, and pharynx (including the nasopharynx, oropharynx, and hypopharynx).

**Head and neck cancer regions.** Illustrates location of paranasal sinuses, nasal cavity, oral cavity, tongue, salivary glands, larynx, and pharynx (including the nasopharynx, oropharynx, and hypopharynx). Cancers of the brain, the eye, the esophagus, and the thyroid gland, as well as those of the scalp, skin, muscles, and bones of the head and neck, are not usually classified as head and neck cancers.

Sometimes, cancerous squamous cells can be found in the lymph nodes of the upper neck when there is no evidence of cancer in other parts of the head and neck. When this happens, the cancer is called metastatic squamous neck cancer with unknown (occult) primary.

**Symptoms of Head and Neck Cancer**
The symptoms of head and neck cancers may include a lump or a sore that does not heal, a sore throat that does not go away, difficulty in swallowing, and a change or hoarseness in the voice. These symptoms may also be caused by other, less serious conditions. It is important to check with a doctor or dentist about any of these symptoms. Symptoms that may affect specific areas of the head and neck include the following:

**Oral cavity.** A white or red patch on the gums, the tongue, or the lining of the mouth; a swelling of the jaw that causes dentures to fit poorly or become uncomfortable; and unusual bleeding or pain in the mouth.
A lump in the neck. Cancers that begin in the head or neck usually spread to lymph nodes in the neck before they spread elsewhere. A lump in the neck that lasts more than two weeks should be seen by a physician as soon as possible. Of course, not all lumps are cancer. But a lump (or lumps) in the neck can be the first sign of cancer of the mouth, throat, voicebox (larynx), thyroid gland, or of certain lymphomas and blood cancers. Such lumps are generally painless and continue to enlarge steadily.

Change in the voice. Most cancers in the larynx cause some changes in voice. An otolaryngologist is a head and neck specialist who can examine your vocal cords easily and painlessly. While most voice changes are not caused by cancer, you shouldn’t take chances. If you are hoarse or notice voice changes for more than two weeks, see your doctor.

A growth in the mouth. Most cancers of the mouth or tongue cause a sore or swelling that doesn’t go away. These may be painless, which can be misleading. Bleeding may occur, but often not until late in the disease. If an ulcer or swelling is accompanied by lumps in the neck, you should be concerned. In addition, any sore or swelling in the mouth that does not go away after a week should be evaluated by a physician. Your dentist or doctor can determine if a biopsy (tissue sample test) is needed and can refer you to a head and neck surgeon who can perform this procedure.

Bringing up blood. This is often caused by something other than cancer. However, tumors in the nose, mouth, throat, or lungs can cause bleeding. If blood appears in your saliva or phlegm for more than a few days, you should see your physician.

Swallowing problems. Cancer of the throat or esophagus (swallowing tube) may make swallowing solid foods and sometimes liquids difficult. The food may “stick” at a certain point and then either go through to the stomach or come back up. If you have trouble almost every time you try to swallow something, you should be examined by a
physician. Usually a barium swallow x-ray or an esophagoscopy (direct examination of the swallowing tube with a scope) will be performed to find the cause.

**Changes in the skin.** The most common head and neck cancer is basal cell cancer of the skin. Fortunately, this is rarely serious if treated early. Basal cell cancers appear most often on sun-exposed areas like the forehead, face, and ears, but can occur almost anywhere on the skin. Basal cell cancer often begins as a small, pale patch that enlarges slowly, producing a central “dimple” and eventually an ulcer. Parts of the ulcer may heal, but the major portion remains ulcerated. Some basal cell cancers show color changes. Other kinds of cancer, including squamous cell cancer and malignant melanoma, also occur on the head and neck. Most squamous cell cancers occur on the lower lip and ear. They may look like basal cell cancers, and if caught early and properly treated, usually are not dangerous. If there is a sore on the lip, lower face, or ear that does not heal, consult a physician. Malignant melanoma typically produces a blue-black or black discoloration of the skin. However, any mole that changes size, color, or begins to bleed may mean trouble. A black or blue-black spot on the face or neck, particularly if it changes size or shape, should be seen as soon as possible by a dermatologist or other physician.

![Image of a mole on the nose](image)

**Persistent earache.** Constant pain in or around the ear when you swallow can be a sign of infection or tumor growth in the throat. This is particularly serious if it is associated with difficulty in swallowing, hoarseness, or a lump in the neck. These symptoms should be evaluated by an otolaryngologist.

**Pharynx.** Trouble breathing or speaking; pain when swallowing; pain in the neck or the throat that does not go away; frequent headaches, pain, or ringing in the ears; or trouble hearing.
Larynx. Pain when swallowing or ear pain.

**Paranasal sinuses and nasal cavity.** Sinuses that are blocked and do not clear; chronic sinus infections that do not respond to treatment with antibiotics; bleeding through the nose; frequent headaches, swelling or other trouble with the eyes; pain in the upper teeth; or problems with dentures.

**Salivary glands.** Swelling under the chin or around the jawbone, numbness or paralysis of the muscles in the face, or pain in the face, the chin, or the neck that does not go away.

**Early Detection- The Key to Survival**
Tobacco use is the most preventable cause of these deaths. In the United States, up to 200,000 people die each year from smoking-related illnesses. The good news is that this figure has decreased due to the increasing number of Americans who have quit smoking. The bad news is that some of these smokers switched to smokeless or spit tobacco, assuming it is a safe alternative. This is untrue. By doing so, they are only changing the site of the cancer risk from their lungs to their mouths. While lung cancer cases are decreasing, cancers in the head and neck appear to be increasing, but they are curable if caught early. Fortunately, most head and neck cancers produce early symptoms. You should know the potential warning signs so you can alert your doctor as soon as possible. Remember successful treatment of head and neck cancer depends on early detection. Knowing and recognizing its signs can save your life.

**Causes of Head and Neck Cancer**
Alcohol and tobacco use (including smokeless tobacco, sometimes called “chewing tobacco” or “snuff”) are the two most important risk factors for head and neck cancers, especially cancers of the oral cavity, oropharynx, hypopharynx, and larynx. At least 75 percent of head and neck cancers are caused by tobacco and alcohol use. People who use both tobacco and alcohol are at greater risk of developing these cancers than people who use either tobacco or alcohol alone. Tobacco and alcohol use are not risk factors for salivary gland cancers.
Infection with cancer-causing types of human papillomavirus (HPV), especially HPV-16, is a risk factor for some types of head and neck cancers, particularly oropharyngeal cancers that involve the tonsils or the base of the tongue. In the United States, the incidence of oropharyngeal cancers caused by HPV infection is increasing, while the incidence of oropharyngeal cancers related to other causes is falling.

**Risk Factors for Head and Neck Cancer**

**Highest Risk Factors.** As many as 90 percent of head and neck cancers arise after prolonged exposure to specific risk factors. Use of tobacco (cigarettes, cigars, chewing tobacco, or snuff) and alcoholic beverages are the most common cause of cancers of the mouth, throat, voice box, and tongue. In adults who do not smoke or drink, cancer of the throat can occur as a result of infection with the human papilloma virus (HPV). Prolonged exposure to sunlight is linked with cancer of the lip and is also established as a major cause of skin cancer.

**WHAT ARE THE RISK FACTORS?**

- **Smoking:** Smokers have a higher risk of head and neck cancer than non-smokers.
- **Alcohol:** Men who consume more than three units and women who consume more than two units of alcohol per day are at a significantly higher risk of developing head and neck cancer.
- **Human Papillomavirus:** The incidence of throat cancer is rising due to certain sub-types of the Human Papillomavirus.

**Paan (betel quid).** Immigrants from Southeast Asia who use paan (betel quid) in the mouth should be aware that this habit has been strongly associated with an increased risk of oral cancer.
**Maté.** Consumption of maté, a tea-like beverage habitually consumed by South Americans, has been associated with an increased risk of cancers of the mouth, throat, esophagus, and larynx.

**Preserved or salted foods.** Consumption of certain preserved or salted foods during childhood is a risk factor for nasopharyngeal cancer.

**Oral health.** Poor oral hygiene and missing teeth may be weak risk factors for cancers of the oral cavity. Use of mouthwash that has a high alcohol content is a possible, but not proven, risk factor for cancers of the oral cavity.

**Occupational exposure.** Occupational exposure to wood dust is a risk factor for nasopharyngeal cancer. Certain industrial exposures, including exposures to asbestos and synthetic fibers, have been associated with cancer of the larynx, but the increase in risk remains controversial. People working in certain jobs in the construction, metal, textile, ceramic, logging, and food industries may have an increased risk of cancer of the larynx. Industrial exposure to wood or nickel dust or formaldehyde is a risk factor for cancers of the paranasal sinuses and nasal cavity.

**Radiation exposure.** Radiation to the head and neck, for noncancerous conditions or cancer, is a risk factor for cancer of the salivary glands.

**Epstein-Barr virus infection.** Infection with the Epstein-Barr virus is a risk factor for nasopharyngeal cancer and cancer of the salivary glands.

**Ancestry.** Asian ancestry, particularly Chinese ancestry, is a risk factor for nasopharyngeal cancer.

**Oral Cancer and HPV**
Recent research could explain the increase of oral cancer incidence in young adults, a group traditionally at low risk. This phenomenon has been at least partly attributed to the rise of the human-papillomavirus (HPV), a cancer-causing virus that can be transmitted through oral sex.

Though oral cancers associated with the papillomavirus are still relatively rare, they typically are found near the base of the tonsils and the back of the tongue, areas that are often difficult to see during visual screenings until the cancer is in a late stage.
Treatments for Head and Neck Cancer
The treatment plan for an individual patient depends on a number of factors, including the exact location of the tumor, the stage of the cancer, and the person’s age and general health. Treatment for head and neck cancer can include surgery, radiation therapy, chemotherapy, targeted therapy, or a combination of treatments.

After a definitive diagnosis has been made and the cancer has been staged, treatment may begin. Treatment of oral cancers is ideally a multidisciplinary approach involving the efforts of surgeons, radiation oncologists, chemotherapy oncologists, dental practitioners, nutritionists, and rehabilitation and restorative specialists. The actual curative treatment modalities are usually surgery and radiation, with chemotherapy added to decrease the possibility of metastasis, to sensitize the malignant cells to radiation, or for those patients who have confirmed distant metastasis of the disease.

People who are diagnosed with HPV-positive oropharyngeal cancer may be treated differently than people with oropharyngeal cancers that are HPV-negative. Recent research has shown that patients with HPV-positive oropharyngeal tumors have a better prognosis and may do just as well on less intense treatment. An ongoing clinical trial is investigating this question.
Side Effects of Treatment
Patients with cancers treated in their early stages, may have little in the way of post treatment disfigurement. For those whose cancer is caught at a later stage, the results of surgical removal of the disease may require reconstruction of portions of their oral cavity or facial features. There may be adjunctive therapy required to assist in speech, chewing of foods, the problems associated with the lack of salivary function, as well as the fabrication of dental or facial prostheses.

Surgery for head and neck cancers often changes the patient’s ability to chew, swallow, or talk. The patient may look different after surgery, and the face and neck may be swollen. The swelling usually goes away within a few weeks. However, if lymph nodes are removed, the flow of lymph in the area where they were removed may be slower and lymph could collect in the tissues, causing additional swelling; this swelling may last for a long time.

After a laryngectomy (surgery to remove the larynx) or other surgery in the neck, parts of the neck and throat may feel numb because nerves have been cut. If lymph nodes in the neck were removed, the shoulder and neck may become weak and stiff. Patients who receive radiation to the head and neck may experience redness, irritation, and sores in the mouth; a dry mouth or thickened saliva; difficulty in swallowing; changes in taste; or nausea. Other problems that may occur during treatment are loss of taste, which may decrease appetite and affect nutrition, and earaches (caused by the hardening of ear wax). Patients may also notice some swelling or drooping of the skin under the chin and changes in the texture of the skin. The jaw may feel stiff, and patients may not be able to open their mouth as wide as before treatment. Patients should report any side effects to their doctor or nurse, and discuss how to deal with them.

Prior to the commencement of curative treatment, it is likely that other oral health needs will be addressed. The purpose is to decrease the likelihood of developing post therapeutic complications. Teeth with poor prognosis from periodontal problems, caries, etc. may be extracted. This avoidance of post radiotherapy surgery is important as it can sometimes induce osteonecrosis, a condition which can develop when tissue
damaged by radiation exposes the underlying bone. The bone, which has lost its ability
to efficiently repair itself due to reduced blood supply, again from radiation exposure,
yields a chronic and difficult to treat situation. A thorough prophylaxis, or cleaning will
likely be done as well.

Survivors of Head and Neck Cancer
The goal of treatment for head and neck cancers is to control the disease, but doctors
are also concerned about preserving the function of the affected areas as much as they
can and helping the patient return to normal activities as soon as possible after
treatment. Rehabilitation is a very important part of this process. The goals of
rehabilitation depend on the extent of the disease and the treatment that a patient has
received.

Depending on the location of the cancer and the type of treatment, rehabilitation may
include physical therapy, dietary counseling, speech therapy, and/or learning how to
care for a stoma. A stoma is an opening into the windpipe through which a patient
breathes after a laryngectomy, which is surgery to remove the larynx. The National
Library of Medicine has more information about laryngectomy in MedlinePlus.

Sometimes, especially with cancer of the oral cavity, a patient may need reconstructive
and plastic surgery to rebuild bones or tissues. However, reconstructive surgery may
not always be possible because of damage to the remaining tissue from the original
surgery or from radiation therapy. If reconstructive surgery is not possible, a
prosthodontist may be able to make a prosthesis (an artificial dental and/or facial part)
to restore satisfactory swallowing, speech, and appearance. Patients will receive special
training on how to use the device.

Patients who have trouble speaking after treatment may need speech therapy. Often, a
speech-language pathologist will visit the patient in the hospital to plan therapy and
teach speech exercises or alternative methods of speaking. Speech therapy usually continues after the patient returns home.

Eating may be difficult after treatment for head and neck cancer. Some patients receive nutrients directly into a vein after surgery or need a feeding tube until they can eat on their own. A feeding tube is a flexible plastic tube that is passed into the stomach through the nose or an incision in the abdomen. A nurse or speech-language pathologist can help patients learn how to swallow again after surgery.

**Regular Follow-Up**
Regular follow-up care is very important after treatment for head and neck cancer to make sure that the cancer has not returned, or that a second primary (new) cancer has not developed. Depending on the type of cancer, medical checkups could include exams of the stoma, if one has been created, and of the mouth, neck, and throat. Regular dental exams may also be necessary.
From time to time, the doctor may perform a complete physical exam, blood tests, x-rays, and computed tomography (CT), positron emission tomography (PET), or magnetic resonance imaging (MRI) scans. The doctor may monitor thyroid and pituitary gland function, especially if the head or neck was treated with radiation. Also, the doctor is likely to counsel patients to stop smoking. Research has shown that continued smoking by a patient with head and neck cancer may reduce the effectiveness of treatment and increase the chance of a second primary cancer.

**Reducing your Risk for Other Cancers**
People who have been treated for head and neck cancers have an increased chance of developing a new cancer, usually in the head, neck, esophagus, or lungs. The chance
of a second primary cancer varies depending on the site of the original cancer, but it is higher for people who use tobacco and drink alcohol. Especially because patients who smoke have a higher risk of a second primary cancer, doctors encourage patients who use tobacco to quit. Information about tobacco cessation is available from NCI’s Cancer Information Service at 1–800–4–CANCER (1–800–422–6237) and in the NCI fact sheet Where To Get Help When You Decide To Quit Smoking. The federal government’s main resource to help people quit using tobacco is BeTobaccoFree.gov. The government also sponsors Smokefree Women, a website to help women quit using tobacco, and Smokefree Teen, which is designed to help teens understand the decisions they make and how those decisions fit into their lives. The toll-free number 1–800–QUIT–NOW (1–800–784–8669) also serves as a single point of access to state-based telephone quitlines.

American Cancer Society’s Head and Neck Cancer Survivorship Care Guidelines’ Free Patient Page
The American Cancer Society has developed a Free Patient Page for head and neck cancer patients, who are finished with treatments, and need guidance on how to best manage issues that can occur after treatment. The guidelines provide recommendations on how to talk with healthcare providers on follow-up care as well as managing treatment effects.
Many thanks to HNCA Board Member Erza Cohen, M.D., UC San Diego Moores Cancer Center, the HNCA Board as well as the American Cancer Society for the development of these Guidelines as well as the ongoing dedication to cancer patient survivorship.

Resources:
www.cancer.gov
http://oralcancerfoundation.org/events/oral-head-neck-cancer-awareness-month/
http://www.aaos.org/media/raise-oral-cancer-awareness
http://www.mouthcancer.org/
http://www.headandneck.org/