Participants Needed

SMILE Study

Physicians in the Department of Otolaryngology are participating with centers from around the country to study dry mouth which frequently occurs after treatment with radiation therapy. This is a multi-center randomized placebo-controlled design Study to assess the effectiveness of ceviMeline to Improve oraL health in patients with xErostomia secondary to radiation therapy for treatment of head and neck cancer.

Xerostomia, or dry mouth, is often a side effect of radiation therapy. SMILE's primary objective is to assess the impact of cevimeline on salivary flow. Participants will need to have completed radiation therapy during the past year. The study drug is FDA approved for other causes of dryness. It will be provided free by the manufacturer. Participants will need to return for office visits twice (their regular visits) at which time they will be asked to complete questionnaires about dryness.

For more information, contact Dana Ivanco at ivancode@upmc.edu.

Fish Oil Study

Roxann Diez Gross, PhD, and Ricardo Carrau, MD, are conducting a study to determine if fish oil can reduce or prevent swallowing problems that occur during or after the combination of chemotherapy and radiation therapy that is used to treat head and neck cancer. Individuals interested in participating in this study can call Dr. Gross at 412-647-6187.

Clinical Trials

For more information about head and neck clinical trials, contact Kerry Trent, clinical research coordinater, at 412-383-2084.

Support group

The Department of Otolaryngology, UPMC Cancer Centers and UPCI, is planning to form a support group in Fall 2008 for patients, survivors, family members, and caregivers who have been affected by head and neck cancer. If you are interested in participating, contact Tom Boyer, PA-C, at boyertg@upmc.edu.

Call **Cancer Information and Referral Services (CIRS)** at **412-647-2811** Monday through Friday from 8 a.m. to 4 p.m. for complete information on support groups, education, referrals, clinical trials, and a variety of cancer-related topics.

Nutrition and the treatment of head and neck cancer

By Joyce Diacopoulos, RD, LDN
Nutrition Coordinator,
Hillman Cancer Center

Frequently asked questions from head and neck cancer patients about food and nutrition:

Is weight loss common due to disease or during treatment?

Yes, many patients present to their physicians in a nutritionally compromised state. Thirty to 50 percent of patients with head and neck cancer are malnourished before treatment begins. A mass or tumor may interfere with a patient's ability to chew foods, swallow safely, and consume enough calories to maintain weight. Maximizing your intake of protein and calorie rich foods to promote weight maintenance is essential. A healthier weight means a better outcome with treatments.

Will I lose my sense of taste?

You may lose the sense of taste from radiation to the head and neck area. Chemotherapy may also contribute to altered taste of foods. Radiation can cause temporary inflammation and changes to your mucus membranes that affects your taste buds and decrease saliva production. All patients are encouraged to follow vigorous mouth care regimen and carry a water bottle for fluids. Season foods with tart flavors, such as lemon wedges, citrus fruits, and vinegar based marinades to overpower bad tastes; try other seasonings to make food taste better. Sucking on sugar free lemon candy or mints helps to rid the mouth of unpleasant tastes and eating foods at room temperature decreases offensive odors.

Will I experience a sore mouth and throat?

Mucositis (irritated mucus membranes) is a common side effect from radiation or chemotherapy treatment. Mouth care tips to keep oral cavity clean and moist include: eating soft, high protein foods and beverages to speed the healing process of membranes; avoiding alcohol, carbonated beverages, and tobacco to decrease the irritation of membranes; avoiding certain spices and citrus drinks, tomato products, and hot chili powders or sauces to prevent further irritation.

Will I experience difficulty swallowing too?

Yes, difficulty swallowing is common. The causes can be tumor location, nerve damage from surgery, and inflammation from radiation. Most patients meet with a speech and swallowing therapist for specific swallowing tips during their treatment. To assist with swallowing, eat small portions and frequent meals and snacks with soft, moist foods to get important calories. Eat high calorie and protein supplements with milk, soy milk, protein powders, and other ingredients between meals. Change the consistency of the foods to thick liquids, blenderized foods, or pureed foods to provide a diet that is well tolerated by you.

Are there any newer nutritional supplements I can take?

Ask your physician or dietician for information about the appropriate supplement for your needs.

UPMC Cancer Centers *and*
University of Pittsburgh Cancer Institute

Summer 2008

HEADWAY

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

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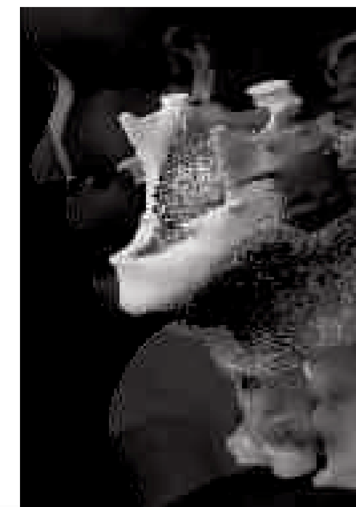

It takes a village to manage care

By Jonas Johnson, MD
Chair, Department of Otolaryngology, Eye and Ear Institute

Patients often ask "How do I choose a good doctor to care for my condition?" Some suggest that a physician's training, experience, and certification by the appropriate credentialing boards are essential elements in selecting a doctor. While this criteria is important, my life-long experience treating head and neck cancer patients has taught me that a favorable treatment outcome is also determined by the many health care professionals who collaborate as a head and neck cancer treatment team.

The treatment and care of most patients is discussed at a multidisciplinary conference that includes surgeons, medical oncologists, and radiation oncology specialists who ensure that the best therapeutic strategies are chosen to enhance the chances for good outcomes.

Properly establishing the diagnosis and stage of cancer can be difficult. Head and neck cancer is a relatively rare disease, making up fewer than four percent of all cancers and a significant percentage of individuals referred for treatment come with a diagnostic error. Physicians often rely on the expertise of the subspecialty trained head and neck pathologist to render the correct diagnosis. Similarly, subspecialty trained radiologists — neuroradiologists who specialize in head and neck cancer — help with the sometimes difficult challenge of determining the exact extent of tumor invasion and metastasis.

During surgery, the multidisciplinary team expands to anesthesiologists, nurses, and technicians who support surgical care. Pathologists also help to determine the successful removal of the entire tumor. Post-surgery, most patients and their families learn that there is still a lengthy and often difficult road to recovery. Nurses, physical therapists, swallowing therapists, and speech pathologists specializing in head and neck cancer collaborate to maximize healing and functional recovery.

Follow-up includes careful monitoring and continued efforts toward functional recovery. This often includes referral to the Voice Center or the Swallowing Disorders Center, and to physical therapy or voice therapy. These activities continue on an as needed basis.

Cancer of the head and neck is a relatively rare, albeit complex and potentially life-threatening disease. When choosing your doctor, it is important to recognize that sometimes "it takes a village" to maximize successful treatment outcomes.

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Denise Boozer
Head and Neck SPORE Administrator

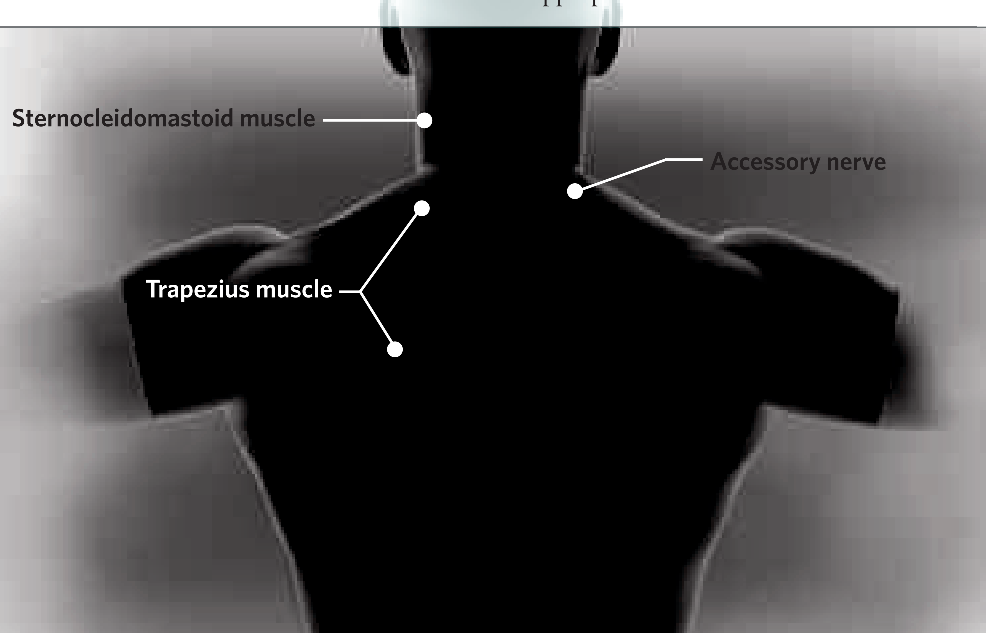
Physical therapy essential during treatment

By Chad Zoll,
Physical Therapist

Cancer is a devastating disease that can drain the body of its function and energy. Unfortunately, the treatment for cancer takes a toll on the body as well. Physical therapy can help people conquer the effects of cancer and the treatment to fight cancer. Physical therapy goals focus on maintaining and improving range of motion (ROM), function, endurance, and strength. These aspects may affect quality of life which is especially affected by the lack of ROM required to complete everyday tasks, such as dressing and feeding. Increased energy expenditure to perform simple tasks will decrease endurance, or the ability to perform prolonged activities.

ROM is often influenced by flexibility and strength of the muscles crossing a joint, previous damage to the joint such as scars of the soft tissue surrounding the joint, or arthritis caused by damage of the joint surfaces. Strength and flexibility of the muscle allows the joint to move through its full ROM. Muscle can become weak after neck dissection surgery because of nerve damage from excising the tumor. The spinal accessory nerve, also known as the eleventh cranial nerve, can be damaged resulting in weakness of the upper trapezius muscle and the sternocleidomastiod muscle. This weakness can result in a muscle imbalance with the serratus anterior muscle which works through a different nerve, the long thoracic nerve. This imbalance of the strong serratus anterior against the weak upper trapezius may cause the shoulder complex to droop down and forward causing pain in the middle back, from the constant stretching of the muscles. In addition, since the trapezius muscle is weakened, the shoulder complex is unable to elevate fully decreasing the patient's ability to work overhead or even to groom their hair. Physical therapy helps to restore the muscle balance through strengthening of the trapezius muscle. However, the recovery is often dictated by the recovery of the damaged nerve. Physical therapy facilitates the nerve's recovery by helping the patient to use the nerve through exercise or sometimes through other modalities, such as electrical stimulation.

Scar tissue around the joint can be caused by radiation therapy as well as surgery. Tissues growing back together heal the cuts performed in surgery. Just as the skin scabs over at a cut, the soft tissue can form scars at the incision site which restrict ROM. A therapist can try to break the adhesions of the scar through stretching, and methods such as heat or ultrasound. However, these modalities may be inappropriate if the cancer is still present. The physical therapist and oncologist should communicate with each other about the plan of care so appropriate treatments are administered.



What can a patient do prior to cancer treatment? Keep your shoulders and neck flexible and the muscles around the shoulder strong. Simply moving those joints through their full range of motion will keep the joints flexible. Stay involved in community and household activities. The old saying, "if you don't use it, you lose it" is especially true for the body. If a patient doesn't move a joint through a particular range for a period of time, that patient will lose that ROM.

If you have questions about exercise or activities, don't be afraid to ask your oncologist or physical therapist. If you are undergoing treatment or already have undergone treatment for head and neck cancer, and still note activities that are difficult to complete, ask your oncologist if it is okay to return to a physical therapist for further treatment or for community exercise programs that are familiar with working with cancer patients.

Radiation therapy innovations in 2008 — kinder, gentler, more effective options for head and neck cancers

By Dwight E. Heron, MD, FACRO
Associate Professor and Vice Chairman
Director, Radiation Oncology Services, UPMC Cancer Centers and University of Pittsburgh Cancer Institute

Over the past century, radiation therapy has evolved in virtually every way. From machines using naturally occurring radioactive elements such as Cobalt-60 and Radium to high-energy linear accelerators (linacs) with computer-driven field shapes, technological advances have been at the core of radiation advances. In the past decade, University of Pittsburgh Cancer Institute (UPCI) and UPMC Cancer Centers has become a world leader in the implementation and use of image-guided radiation therapy (IGRT) and a highly conformal radiation treatment technique called intensity-modulated radiation therapy (IMRT). IMRT and IGRT represent a radical break from radiation treatment techniques of the past by preferentially sparing normal tissues and critical structures from high doses of radiation while simultaneously delivering the necessary doses that conform to the tumor bearing areas. In doing so, we have been able to dramatically reduce the risks and complications of treatment for head and neck cancers, such as chronic dry mouth, skin peeling, and fibrosis (thickening) of the soft tissues. For example, recent studies have shown that in patients with advanced laryngeal cancers, chemotherapy and radiation combined can result in organ preservation in more than 80 percent of patients, thereby avoiding total laryngectomy.

We are not satisfied with just making treatments kinder and gentler. The multidisciplinary team of head and neck cancer experts has sought to make treatments more effective. In this effort our team has explored the use of biological targeting agents in combination with state-of the-art surgery, chemotherapy, and radiation therapy to improve cure rates. Early signs are promising but our collective success requires the commitment of our patients as well. Clinical trials are the core of our innovations in cancer care — it is true that the question, **"Is this the best we can do"** motivates the core team of UPCI researchers and clinicians to provide world-class comprehensive cancer care in western Pennsylvania. These services are not only available in Shadyside at Hillman Cancer Center but as the United States largest hub-and-satellite cancer network, care is available at numerous radiation oncology locations and more than 40 medical oncology offices. This is comprehensive care where it counts, close to home!

UPMC Cancer Center's Department of Radiation Oncology is a world leader in the integration of functional imaging such as position-emission tomography/ computed tomography (PET-CT) in radiation treatment planning, assessment of response to treatment, and surveillance. By more accurately targeting tumor bearing tissues in near real-time and preferentially escalating doses to some areas, we hope to diminish the risk of tumor recurrences. When local or regional recurrences do occur, surgery remains the mainstay of therapy. In some instances, re-irradiation with IGRT and IMRT or an even more precise technique called stereotactic radiosurgery delivered by tracking the tumor in near real-time offers new promise in controlling limited disease with very few side effects. Frequently this offers a second or even third opportunity to control head and neck cancers that have failed previous therapies. Ongoing clinical trials at the UPCI will help determine the role of these innovative strategies in situations where there were very few or no options in the past.

Tremendous advances and recent innovations in the radiotherapeutic approach to head and neck cancers have resulted in more precise targeting and delivery of radiation doses, higher cure rates, and less long-term toxicity in many cases. Nevertheless, there remain many challenges ahead including further reducing the incidence of recurrences and treatment-related side effect amongst others. The team at UPCI and UPMC Cancer Centers and our patients are committed to asking the critical questions necessary and are committed to providing the very best in care close to home. As Sir Albert Einstein once said, "The important thing is to never stop questioning!"

Managing side effects — Common skin reactions

By Mary Fore, RN, BSN, OCN
Collaborative Practice Nurse

The past few years have been eventful in the development of new therapies for the treatment of head and neck cancers. Unfortunately these therapies can affect normal cells, as well as cancer cells, and may cause reactions with the skin. It is important to identify these reactions and care for them properly. Always communicate changes in your condition to your healthcare team, and let them know of any new medications or treatments that you may be using. If you are receiving radiation therapy, do not use any lotions or creams without first consulting with your nurse or doctor.

Common Skin Reactions:

Acne-like rash most commonly occurs on the face, neck, chest, or back. It should NOT be confused with acne. It can be dry and itchy and can form pustules which may become infected if not properly treated.

Dry Skin can be itchy and peeling.

Fissures or cracks on fingertips can occur that look like paper cuts. Hands and fingers may become red and dry and sometimes tender.

Redness and/or swelling around the edges of toenails and fingernails usually develops after four to eight weeks of therapy and affects the great toes and thumbs. Despite the swelling and redness, it is not usually associated with infection.

Proper skin care includes:

- Wash with mild, unscented soaps or cleansers.
- Keep skin moisturized with Caren Cream, Udder Cream, Eucerin Cream, etc.
- Use hypo-allergenic make-up or cover-up such as Clinique, Cover Girl, etc.
- Use topical antibiotic gels and creams as directed by your doctor.
- Use warm or tepid water for baths and showers.
- Wear comfortable shoes and socks.
- Cushion tender areas on feet or hands with moleskin or corn pads.
- Soak feet and use moisturizers after.
- If you are a diabetic, see a podiatrist.
- Your doctor may prescribe oral antibiotics.
- If your rash becomes severe, your doctor may decide to skip a dose of your medication or reduce your dose.

Things to avoid:

- Do not use acne creams or lotions.
- No not use over-the-counter steroid (cortisone) creams or gels.
- Do not use products containing perfumes or alcohol.
- Do not intentionally break pustules.
- Do not allow fingernails to grow long and try not to scratch.