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Oral and Oropharyngeal Cancer - Treatment Options [1]

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ON THIS PAGE: You will learn about the different ways doctors use to treat people with oral or oropharyngeal cancer. To see other pages, use the menu on the side of your screen.

This section outlines treatments that are the standard of care (the best proven treatments available) for these specific types of cancer. When making treatment plan decisions, patients are also encouraged to consider clinical trials as an option. A clinical trial is a research study to test a new approach to treatment to evaluate whether it is safe, effective, and possibly better than the standard treatment. Clinical trials may test such approaches as a new drug, a new combination of standard treatments, or new doses of current therapies. Your doctor can help you review all treatment options. For more information, see the Clinical Trials [3] and Latest Research [4] sections.

Treatment overview

Oral and oropharyngeal cancer can often be cured, especially if the cancer is found at an early stage. Although curing the cancer is the primary goal of treatment, preserving the function of the nearby nerves, organs, and tissues is also very important. When doctors plan treatment, they consider how treatment might affect a person's quality of life, such as how the person feels, looks, talks, eats, and breathes.

In many cases, a team of doctors will work together with the patient to create the best treatment plan. Head and neck cancer specialists often form a multidisciplinary team [5] to care for each patient. This team may include medical oncologists who specialize in treating cancer with medication, radiation oncologists who specialize in giving radiation therapy to treat cancer, surgeons, otolaryngologists (ear, nose, and throat doctors), maxillofacial prosthodontists who

specialize in restorative surgery to the head and neck area, dentists, physical therapists, speech pathologists, mental health professionals, nurses, dietitians, and social workers. It is crucial that a comprehensive treatment plan is established before treatment begins, and people may need to be seen and evaluated by several specialists before such a plan can be created.

There are three main treatment options for oral and oropharyngeal cancer: surgery, radiation therapy, and chemotherapy. Descriptions of these common treatment options are listed below. Treatment options and recommendations depend on several factors, including the type and stage of cancer, possible side effects, and the patient's preferences and overall health. One of these therapies, or a combination of them, may be used. Your care plan may also include treatment for symptoms and side effects, an important part of cancer care. Take time to learn about all of your treatment options and be sure to ask questions about things that are unclear. Also, talk about the goals of each treatment with your doctor and what you can expect while receiving the treatment. Learn more about making treatment decisions [6].

Surgery

Surgery is the removal of the tumor and some surrounding healthy tissue, known as a margin, during an operation. A surgical oncologist is a doctor who specializes in treating cancer using surgery. The goal of surgery is to remove all of the tumor and leave negative margins, which means there is no trace of cancer in the healthy tissue. Sometimes surgery is followed by radiation therapy and/or chemotherapy. Depending on the location, stage, and pathology of the cancer, some people may need more than one operation to remove the cancer and to help restore the appearance and function of the affected tissues.

The most common surgical procedures for the removal of oral and oropharyngeal cancer include:

- **Primary tumor surgery.** The tumor and a margin of healthy tissue are removed to decrease the chance that any cancerous cells will be left behind. The tumor can be removed through the mouth or through an incision in the neck. A mandibulotomy, in which the jawbone is split to access the tumor, may also be required.
- **Glossectomy.** This is the partial or total removal of the tongue.
- **Mandibulectomy.** If the tumor has entered a jawbone but not spread into the bone, then a piece of the jawbone or the whole jawbone will be removed. If there is evidence of destruction of the jawbone on an x-ray, then the entire bone may need to be removed.
- **Maxillectomy.** This surgery removes part or all of the hard palate, which is the bony roof of the mouth. Prostheses (artificial devices), or more recently, the use of flaps of soft tissue with and without bone can be placed to fill gaps created during this operation.
- **Neck dissection.** Cancer of the oral cavity and oropharynx often spreads to lymph nodes in the neck. It may be necessary to remove some or all of these lymph nodes using a surgical procedure called a neck dissection.
- **Laryngectomy.** A laryngectomy is the complete or partial removal of the larynx or voice box. The larynx is critical to swallowing because it protects the airway from food and liquid

entering the trachea or windpipe and reaching the lungs, which can cause pneumonia. A laryngectomy is rarely needed to treat oral or oropharyngeal cancer. However, when there is a large tumor of the tongue or oropharynx, the doctor may need to remove the larynx to protect the airway during swallowing. If the larynx is removed, the windpipe is reattached to the skin of the neck where a hole, called a stoma or tracheostomy, is made (see below). Rehabilitation will be required to learn a new way of speaking.

Any surgical procedure should be done with the assistance of frozen section biopsy of the margins. A frozen section biopsy is a procedure in which a slice of tissue is immediately frozen to speed the process of examination. This procedure will require removal of additional tissue to obtain a margin free of cancer cells.

The use of micrographic surgery, which is very frequent in the treatment of skin cancer, can occasionally be used for oral cavity tumors, and it is one way to minimize the amount of healthy tissue removed. This technique is often used with cancer of the lip and involves removing the visible tumor in addition to small fragments of tissue on the edge surrounding the area where the tumor was located. Each small fragment is examined under a microscope until all of the cancer has been removed.

Other types of surgery may also be needed, including:

- **Tracheostomy.** If cancer is blocking the throat or is too large to completely remove, a hole called a tracheostomy is made in the neck, and a tracheostomy tube is placed through which the person breathes. A tracheostomy can be temporary or permanent.
- **Gastrostomy tube.** If cancer prevents a person from swallowing, a feeding device called a gastrostomy tube is placed through the skin and muscle of the abdomen directly into the stomach. If the swallowing problem is temporary, a nasogastric (NG) tube that inserted through the nose, down the esophagus, and into the stomach may be used instead of a tube into the stomach. Tubes placed into the stomach may also be temporary methods for maintaining nutrition until the person can safely and adequately swallow food taken in by mouth.
- **Reconstruction**. If treatment requires removing large areas of tissue, reconstructive surgery may be necessary to help the patient swallow and speak again. Healthy bone or tissue may be taken from other parts of the body to fill gaps left by the tumor or replace part of the lip, tongue, palate, or jaw. A prosthodontist, a dental specialist with expertise in the restoration and replacement of broken teeth with crowns, bridges, or dentures, may be able to make an artificial dental or facial part to help with swallowing and speech. A speech pathologist can teach the patient to communicate using new techniques or special equipment. A speech-language pathologist can also help restore the ability to swallow in patients who have difficulty eating after surgery or after radiation therapy.

In general, surgery for oral and oropharyngeal cancer often causes swelling, making it difficult to breathe. It may cause permanent loss of voice or impaired speech; difficulty chewing, swallowing, or talking; numbness of the ear; weakness raising arms above the head; lack of

movement in the lower lip; and facial disfigurement. Surgery can decrease functioning of the thyroid gland, especially after a total laryngectomy and/or radiation therapy to the area. Talk with your health care team beforehand about what to expect from your specific surgery and how side effects will be managed.

It is important that a person gets the opinion of different members of the multidisciplinary team before deciding on a specific treatment. Even though surgery is the fastest way to eliminate cancerous tissues, other treatment methods exist and may be equally effective in treating the cancer. People are encouraged to ask about all of their treatment options before deciding on a treatment plan.

Learn more about cancer surgery [7].

Radiation therapy

Radiation therapy is the use of high-energy x-rays or other particles to destroy cancer cells. A doctor who specializes in giving radiation therapy to treat cancer is called a radiation oncologist. A radiation therapy regimen (schedule) usually consists of a specific number of treatments given over a set period of time.

- **External-beam radiation therapy.** This is the most common type of radiation treatment for oral and oropharyngeal cancer. During external-beam radiation therapy, a radiation beam produced by a machine outside the body is aimed at the tumor. This is generally done as an outpatient procedure.
  Proton therapy is a type of external-beam radiation therapy that uses protons rather than x-rays. At high energy, protons can destroy cancer cells. Another method of external radiation therapy, known as intensity modulated radiation therapy (IMRT), allows for more effective doses of radiation therapy to be delivered to the tumor while reducing damage to healthy cells.
- **Internal radiation therapy.** When radiation treatment is given using implants, it is called internal radiation therapy or brachytherapy. Internal radiation therapy involves tiny pellets or rods containing radioactive materials that are surgically implanted in or near the cancer site. The implant is left in place for several days while the person stays in the hospital.

Radiation therapy may be the main treatment for oral cavity cancer, or it can be used after surgery to destroy small areas of cancer that could not be removed.

Before beginning radiation treatment for any head and neck cancer, people should receive a thorough examination from a dentist with experience treating people with head and neck cancer. Since radiation therapy can cause tooth decay, damaged teeth may need to be removed. Often, tooth decay can be prevented by proper treatment from a dentist before beginning treatment. Learn more about dental and oral health [8].

It is also important that people receive counseling and evaluation from an oncologic speech pathologist, a speech pathologist with experience treating people with head and neck cancer.

Since radiation therapy can damage healthy tissue, people often have difficulty speaking and/or swallowing after radiation therapy. These problems may occur long after radiation therapy is completed. Speech pathologists can provide exercises and techniques to prevent long-term speech and swallowing problems.

Hearing may also be affected in patients who receive radiation therapy to the head due to buildup of fluid in the middle ear or nerve damage. Earwax may also dry out and buildup because of the radiation therapy's effect on the ear canal. Sometimes, patients may need to be evaluated by a hearing specialist, known as an audiologist, to determine hearing abilities and/or loss.

Radiation therapy may also cause a condition called hypothyroidism in which the thyroid gland slows down, causing the patient to feel tired and sluggish. Every patient who receives radiation therapy to the neck area should have his or her thyroid checked regularly.

Other side effects from radiation therapy to the head and neck may include redness or skin irritation to the treated area, dry mouth or thickened saliva from damage to salivary glands (which can be temporary or permanent), bone pain, nausea, fatigue, mouth sores, sore throat, difficulty opening the mouth, and a loss of appetite due to a change in a person's sense of taste. Talk with your doctor about possible side effects you can expect and ways to manage them.

Learn more about radiation therapy [9].

Chemotherapy

Chemotherapy is the use of drugs to destroy cancer cells, usually by stopping the cancer cells' ability to grow and divide. Chemotherapy is given by a medical oncologist.

Systemic chemotherapy is delivered through the bloodstream to reach cancer cells throughout the body. Common ways to give chemotherapy include an intravenous (IV) tube placed into a vein using a needle or in a pill or capsule that is swallowed (orally). Some people may receive chemotherapy in their doctor's office or an outpatient clinic; others may go to the hospital. A chemotherapy regimen (schedule) usually consists of a specific number of cycles given over a set period of time. A patient may receive one drug at a time or combinations of different drugs at the same time.

The use of chemotherapy in combination with radiation therapy, called concomitant radiochemotherapy, is often recommended. The combination of these two treatments can sometimes control tumor growth, and it often is more effective than giving either of these treatments alone. However, the side effects can be worse when combining these treatments.

Chemotherapy may be used as the initial treatment before surgery, radiation therapy, or both, which is called a neoadjuvant chemotherapy, or it can be given after surgery, radiation therapy, or both, which is called adjuvant chemotherapy. Chemotherapy for oral cavity cancer is most often given as part of a clinical trial.

Each drug or combination of drugs can cause specific side effects. While some can be permanent, most are temporary and can typically be well controlled. In general, chemotherapy may cause fatigue, nausea, vomiting, hair loss, dry mouth, hearing loss, loss of appetite (often due to a change in sense of taste), difficulty eating food, weakened immune system, diarrhea and/or constipation, and open sores in the mouth that can lead to infection.

Learn more about chemotherapy [10] and preparing for treatment [11]. The medications used to treat cancer are continually being evaluated. Talking with your doctor is often the best way to learn about the medications prescribed for you, their purpose, and their potential side effects or interactions with other medications. Learn more about your prescriptions by using searchable drug databases [12].

Immunotherapy

Immunotherapy, also called biologic therapy, is designed to boost the body's natural defenses to fight cancer. It uses materials made either by the body or in a laboratory to improve, target, or restore immune system function. Learn more about immunotherapy [13].

Targeted therapy

Targeted therapy is a treatment that targets the cancer's specific genes, proteins, or the tissue environment that contributes to cancer growth and survival. This type of treatment blocks the growth and spread of cancer cells while limiting damage to healthy cells.

Currently, antibodies directed against a cellular receptor called the epidermal growth factor receptor (EGFR) are being used in combination with radiation therapy for head and neck cancers. Talk with your doctor about the possible side effects of the specific treatment you will be receiving and how they can be managed.

Recent studies show that not all tumors have the same targets. To find the most effective treatment, your doctor may run tests to identify the genes, proteins, and other factors in your tumor. As a result, doctors can better match each patient with the most effective treatment whenever possible. In addition, many research studies are taking place now to find out more about specific molecular targets and new treatments directed at them.

Learn more about targeted treatments [14].

Getting care for symptoms and side effects

Cancer and its treatment often cause side effects. In addition to treatment to slow, stop, or eliminate the cancer, an important part of cancer care is relieving a person's symptoms and side effects. This approach is called palliative or supportive care, and it includes supporting the patient with his or her physical, emotional, and social needs.

Palliative care can help a person at any stage of illness. People often receive treatment for the

cancer and treatment to ease side effects at the same time. In fact, patients who receive both often have less severe symptoms, better quality of life, and report they are more satisfied with treatment.

Palliative treatments vary widely and often include medication, nutritional changes, relaxation techniques, and other therapies. You may also receive palliative treatments similar to those meant to eliminate the cancer, such as chemotherapy, surgery, and radiation therapy. Talk with your doctor about the goals of each treatment in the treatment plan.

Before treatment begins, talk with your health care team about the possible side effects of your specific treatment plan and supportive care options. And during and after treatment, be sure to tell your doctor or another health care team member if you are experiencing a problem so it is addressed as quickly as possible. Learn more about palliative care [15].

Metastatic oral or oropharyngeal cancer

If cancer has spread to another location in the body, it is called metastatic cancer. Patients with this diagnosis are encouraged to talk with doctors who are experienced in treating this stage of cancer because there can be different opinions about the best treatment plan. Learn more about seeking a second opinion [16] before starting treatment, so you are comfortable with the treatment plan chosen. This discussion may include clinical trials [17] studying new treatments.

Your health care team may recommend a treatment plan that includes a combination of surgery, radiation therapy, chemotherapy, immunotherapy, or targeted therapy. Supportive care will also be important to help relieve symptoms and side effects.

For most patients, a diagnosis of metastatic cancer is very stressful and, at times, difficult to bear. Patients and their families are encouraged to talk about the way they are feeling with doctors, nurses, social workers, or other members of the health care team. It may also be helpful to talk with other patients, including through a support group.

Remission and the chance of recurrence

A remission is when cancer cannot be detected in the body and there are no symptoms. This may also be called “no evidence of disease” or NED.

A remission can be temporary or permanent. This uncertainty leads to many survivors feeling worried or anxious that the cancer will come back. While many remissions are permanent, it’s important to talk with your doctor about the possibility of the cancer returning. Understanding the risk of recurrence and the treatment options may help you feel more prepared if the cancer does return. Learn more about coping with the fear of recurrence [18].

If the cancer does return after the original treatment, it is called recurrent cancer. It may come back in the same place (called a local recurrence), nearby (regional recurrence), or in another place (distant recurrence).

When this occurs, a cycle of testing will begin again to learn as much as possible about the recurrence, including whether the cancer's stage has changed. After testing is done, you and your doctor will talk about your treatment options. Often the treatment plan will include the therapies described above, such as surgery, chemotherapy, and radiation therapy, but they may be used in a different combination or given at a different pace. Your doctor may also suggest clinical trials that are studying new ways to treat this type of recurrent cancer.

People with recurrent cancer often experience emotions such as disbelief or fear. Patients are encouraged to talk with their health care team about these feelings and ask about support services to help them cope. Learn more about dealing with cancer recurrence [19].

If treatment fails

Recovery from cancer is not always possible. If treatment is not successful, the disease may be called advanced or terminal cancer.

This diagnosis is stressful, and this is difficult to discuss for many people. However, it is important to have open and honest conversations with your doctor and health care team to express your feelings, preferences, and concerns. The health care team is there to help, and many team members have special skills, experience, and knowledge to support patients and their families. Making sure a person is physically comfortable and free from pain is extremely important.

Patients who have advanced cancer and who are expected to live less than six months may want to consider a type of palliative care called hospice care. Hospice care is designed to provide the best possible quality of life for people who are near the end of life. You and your family are encouraged to think about where you would be most comfortable: at home, in the hospital, or in a hospice environment. Nursing care and special equipment can make staying at home a workable alternative for many families. Learn more about advanced cancer care planning [20].

After the death of a loved one, many people need support to help them cope with the loss. Learn more about grief and loss [21].

The next section helps explain clinical trials, which are research studies. Use the menu on the side of your screen to select About Clinical Trials, or you can select another section, to continue reading this guide.

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[3] http://www.cancer.net/cancer-types/oral-and-oropharyngeal-cancer/about-clinical-trials?sectionTitle=About%20Clinical%20Trials

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