



**The
American
Academy of
Periodontology**

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Maintaining

Oral Health

During Cancer Therapy



What is periodontal disease?

Almost half of American adults have some form of periodontal disease. However, the majority of these people do not even know that they have it. Periodontal diseases are bacterial infections of the gums, bone and periodontal ligament (attachment fibers that support the teeth and hold them in the jaw).

Periodontitis, a form of periodontal disease, is one of the primary causes of tooth loss and is usually painless and silent until its advanced stages. Symptoms can include:

- Persistent bad breath
- Gums that bleed when you brush your teeth
- Red, swollen and tender gums
- Gums that have pulled away from the teeth
- Loose or separating teeth
- Pus between the gum and tooth
- A change in the way your teeth fit together when you bite

Periodontal diseases can be diagnosed and treated by your dentist and/or periodontist. A periodontist is a specialist with advanced training in the prevention, diagnosis and treatment of diseases affecting the gums and supporting structures of the teeth.

Some forms of periodontal diseases have also been linked to other significant health problems, including heart and respiratory diseases, diabetes, osteoporosis and premature and underweight births.

Just as periodontal health can affect your overall health, certain health conditions and their treatments can affect your periodontal health. One of these is cancer therapy.

If you or someone you know has been diagnosed with cancer, it is essential to make the periodontist or dentist a member of the cancer team. Cancer therapy can cause oral complications that compromise periodontal health, so a visit to your dental professional is important to help you keep your gums healthy



during this difficult time. It may also prevent complications during your cancer treatment.

According to the National Institute of Dental and Craniofacial Research (NIDCR), of the 1.2 million Americans diagnosed with cancer each year, approximately 400,000 will develop oral complications from their treatments. Unfortunately, many patients do not receive oral care until serious, painful complications develop.

Oral Complications

Common side effects of chemotherapy, radiation to the head and neck, and bone marrow transplantation can negatively impact your overall health and quality of life. Radiation and chemotherapy kill cancer cells, but can also affect normal cells as well, including the cells in the mouth. Complications can vary depending on the individual and the type of treatment. These problems can become so significant that your treatment plan may be altered to reduced doses or discontinued entirely.

Oral complications from radiation, bone marrow transplantation or chemotherapy include:

- Inflamed gums, mouth ulcers and infection
- Dry mouth
- Difficulty speaking, chewing and swallowing
- Dental decay or erosion of the tooth's enamel and root
- Loss of taste sensation
- Jaw stiffness
- Delayed healing

Pretreatment Evaluation

Prior to beginning your cancer treatment, an oral evaluation by a periodontist or knowledgeable dental professional is important. Identifying and correcting potential oral problems may ease discomfort so it does not intensify or interfere with your cancer treatment. Oral surgery is not recommended during cancer therapy, because tissues take more time to heal. This is why oral pretreatment is essential.

Pretreatment care also provides the following benefits:

- Reduces the risk and severity of oral complications during cancer therapy
- Reduces the chances of oral pain and ultimately may protect oral health
- Allows for timely diagnosis and treatment of existing infections
- Improves the chances of receiving optimal doses of cancer treatment
- Improves overall health

Daily Oral Hygiene Routine

In addition to pretreatment care, your periodontist or dental professional likely will recommend an at-home oral hygiene routine. Daily oral hygiene will provide comfort, reduce the risk of infection by periodontal bacteria, and minimize the effects of complications caused by your cancer treatment. In addition to the oral hygiene routine tailored by your dental professional, following are some tips to help you keep your mouth as comfortable and healthy as possible:

- Gently brush your teeth, gums and tongue with a soft-bristled toothbrush and fluoride toothpaste after every meal and before bed. If brushing hurts, soften the bristles in warm water.



- Floss teeth gently every day temporarily avoiding areas if gums are sore or bleeding.
- Topical fluoride applications may be prescribed by your dental professional. Fluoride applications will fortify the enamel to help it resist decay caused by decreased saliva production during radiation therapy.
- For a sore mouth, rinse a few times a day with one cup of warm water mixed with $\frac{1}{4}$ teaspoon baking soda and $\frac{1}{8}$ teaspoon salt. Follow with a plain water rinse.
- Avoid candy and soda unless it is sugar-free. Also avoid using toothpicks, tobacco products and alcohol.

Special Considerations

Even though pretreatment and daily oral hygiene can go a long way toward keeping your mouth comfortable and disease-free during cancer treatment, sometimes it's hard to keep the negative effects at bay. If you are experiencing one of these problems, there are a few easy steps you can take to minimize discomfort and the harm it causes.

Caring for Dry Mouth

Chemotherapy and radiation can decrease your salivary secretion causing excessive dryness in the mouth. And, a dry mouth could increase your susceptibility to oral infections. Keep your mouth moist and stimulate saliva flow by:

- Sipping cool water often
- Allowing ice chips to melt in your mouth
- Chewing sugarless gum or candy
- Lubricating your lips with lip balm
- Asking your dental professional for a prescription saliva substitute or medication that may stimulate saliva
- Using a humidifier in your bedroom to alleviate or reduce nighttime oral dryness

In addition, avoid mouthwashes containing alcohol and acidic, carbonated or caffeinated beverages because these chemicals will dry out your mouth.

Eating with Care

Adequate nutrition and fluid intake are important for oral and general health. Occasionally, patients develop nutritional deficiencies because their mouths are sore from cancer treatment. If your mouth is sore, choose easy-to-chew foods that are bland in flavor and lukewarm in temperature. You



may also want to soften your food with sauces, milk, yogurt or gravy or in a blender to facilitate swallowing. If your diet is compromised, then consider nutritional or vitamin supplements.

Protecting Enamel

If a dry mouth or vomiting is a side effect of your cancer treatment, your periodontist or dental professional can prescribe fluoride trays. Use of fluoride trays will prevent the tooth enamel from wearing away as a result of the gastric acids from vomiting or the increased bacteria as a consequence from a dry mouth. Rinsing your mouth after vomiting with $\frac{1}{4}$ teaspoon of baking soda in 1 cup of warm water will also cleanse your teeth and gums of the gastric acids. If you are experiencing vomiting, you may want to ask your oncologist or primary care physician to prescribe anti-nausea medication during your cancer therapy to treat the nausea and vomiting.

Follow-Up and Long-Term Care

Relationships with your periodontist and dental professionals are as important after your cancer therapy as they are before and during your treatments. These continued relationships will help you maintain a comfortable, confident smile for years to come.



Oral Cancer

According to the Centers for Disease Control, more than 30,000 Americans are diagnosed with mouth and throat cancers each year. Oral cancer can affect any area of the oral cavity including the lips, gum tissues, cheek lining, tongue and the hard or soft palate.

How can I protect myself against oral cancer?

As with many forms of cancer, early detection can improve the chances of successful treatment. By taking a few minutes to examine your lips, gums, cheek lining and tongue, you're taking an active role in detecting signs of oral cancer early. Alert your dental professional immediately if you notice any signs suggestive of oral cancer during this self-exam including:

- A sore on the lip or in the mouth that does not heal, bleeds easily, or increases in size
- A lump on the lip or in the mouth or throat
- Numbness or pain in the mouth or lips or difficulty moving the jaw or tongue
- A white or red patch or dark spot on the gums, tongue or lining of the mouth



- Unusual bleeding, pain or numbness in the mouth
- A sore throat that does not go away, or a feeling that something is caught in the throat
- Difficulty or pain with chewing or swallowing
- Swelling of the jaw that causes dentures to fit poorly or become uncomfortable
- Change in the voice
- Pain in the ear
- Change in the way teeth fit together or loosening of the teeth

Is it possible to minimize the risk of developing oral cancer?

The good news is YES! Avoid smoking cigarettes, cigars or pipes; chewing tobacco; or dipping snuff. Chronic or heavy use of alcohol also increases the risk of oral cancer, even for people who do not use tobacco.

Regular visits to your dental professional can increase the chance that oral cancer will be detected in the early stages and treated effectively.



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