Dental and Oral Health [1]

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Listen to theCancer.Net Podcast: Dental Health During Cancer Treatment[3], adapted from this content.

A number of cancer treatments may affect a person?s dental and oral health. Dental and oral health refers to the well-being of the entire mouth, including the teeth, gums, lining of the mouth (mucosa), and salivary glands (the glands that produce saliva). Dental and oral side effects may make it difficult to eat, talk, chew, or swallow.

Besides your usual dentist, there are several other types of dental health professionals who can help with your oral care before, during, and after cancer treatment, including:

- An oral oncologist, a dentist who specializes in the dental and oral health of people with cancer
- An oral surgeon, a dentist who specializes in surgery of the mouth and jaw
- A periodontist, a dentist who specializes in diagnosing and treating gum disease
- A prosthodontist, a dentist who specializes in replacing teeth or other structures in the mouth

Types of dental and oral side effects

Side effects of the mouth caused by cancer treatment may include:

- Dry mouth [4] (xerostomia)
- Mouth sores [5] (mucositis)
- Tooth decay
- Difficulty swallowing [6] (dysphagia)
- Difficulty chewing [7] or opening the mouth
- Infection [8]
- Bone disease
- Inflammation or pain in the lining of the mouth and tongue

Some side effects may disappear shortly after treatment is finished, while others may be long-lasting or permanent.

Causes

Not all cancer treatments affect the mouth, teeth, and jaw. However, the following treatments may cause specific dental and oral side effects. To learn more about your personal risk of experiencing these side effects, talk with a member of your health care team.

Radiation therapy to the head and neck. Side effects from radiation therapy to the head and neck may include dry mouth, tooth decay, loss of taste, mouth and gum sores, bone disease, and stiffness in the jaw. These side effects may be temporary or can continue for several years after treatment. Because the risk of developing some of these side effects is linked to dental disease, seeing a dentist before cancer treatment begins is important. During this appointment, the dentist will examine your mouth, teeth, and gums and address any areas of concern, such as broken, fractured, or infected teeth; poorly fitting dentures; and gum disease to help reduce the risk of potential cancer treatment-related side effects. During treatment, your dentist may recommend special fluoride treatments to help prevent dental decay and infection that can be caused by not producing enough saliva during radiation therapy. Learn more about the side effects of radiation therapy [9].

Chemotherapy. Common side effects of chemotherapy include mouth sores, pain in the mouth and gums, peeling or burning of the tongue, infection, and changes in taste. Chemotherapy may also cause a temporary decrease in your body?s ability to produce infection-fighting cells. Therefore, treating and eliminating any areas of infection in the mouth or teeth should be a priority before starting treatment. Also be sure to let your dentist know you will be starting chemotherapy so he or she can eliminate any potential sources of new infection or irritation. In general, fixed orthodontic appliances like braces should be removed before chemotherapy begins. Dental and oral side effects from chemotherapy usually go away soon after treatment ends. Learn more about the side effects of chemotherapy [10].

Stem cell/bone marrow transplantation. The high-dose chemotherapy that is usually given before a stem cell transplant may cause dental and oral side effects (see above). In addition, graft-versus-host disease, which is a potentially serious complication of stem cell transplantation, may cause dry mouth, sores in the mouth, cavities, sensitivity to spicy or acidic foods, and difficulty swallowing due to a decrease in saliva. Learn more about the side effects of stem cell transplantation [11].

For people with leukemia, lymphoma, or multiple myeloma who have a stem cell transplant, the drug palifermin (Kepivance) is approved by the U.S. Food and Drug Administration to prevent treatment-related mouth sores. Palifermin is given through an intravenous (IV) tube placed into a vein before the transplant.

Bone-modifying drugs. Medications like bisphosphonates and other newer drugs are sometimes used to prevent or treat osteoporosis [12] and other types of bone loss caused by cancer. An uncommon but serious side effect of these medications is osteonecrosis of the jaw or ONJ. The symptoms of ONJ include pain, swelling, and infection of the jaw; loose teeth; and exposed bone. To help prevent ONJ, it is important to visit a dentist before starting treatment to make sure there are no areas of infection. Find more information about bone-modifying drugs for breast cancer [13] and bisphosphonates for multiple myeloma [14].

Other medications. Other medications that help manage cancer symptoms and side effects may also cause dental and oral side effects. For example, pain medications can cause dry mouth, and some mouth rinses with the chemical chlorhexidine that are used to treat infections may discolor teeth.

Prevention

It is important to make an appointment with a dentist at least four weeks before starting cancer treatment. If you need to have a dental procedure, such as the removal of a tooth, ask your dentist how soon after the procedure you can start cancer treatment. Many oral oncologists recommend allowing at least two weeks for healing between dental surgery and the start of cancer treatment. It is also important to talk with your dentist or another member of your health care team about which mouth problems you should tell your dentist about right away. If you didn?t have a chance to see a dentist before you started your cancer treatment, see one as soon as possible.

Regular communication with your health care team is important for preventing dental and oral side effects. During treatment, the following tips may also help improve your oral health and prevent side effects:

Gently brush your teeth two times a day and floss regularly. It may also help to soak an extra-soft toothbrush in warm water to soften the bristles before brushing. If you are receiving chemotherapy, your doctor may give you special instructions to reduce the risk of bleeding and infection.

Avoid alcohol and extremes in your diet. Try eating foods that are soft and mild. Extremely hot, cold, spicy, acidic, or crunchy foods may irritate your mouth.

Promote good bone health. Getting enough vitamin D and calcium each day helps promote a strong, healthy jaw and teeth. Dairy products are good sources of calcium and, if fortified, vitamin D. Other food choices may include fortified fruit juice and fortified breakfast cereals. Talk with your doctor before taking any supplements.

Management and treatment

If you experience any dental or oral side effects, including any pain, bleeding, a decrease in the ability to open your mouth, or swelling in the mouth, let your doctor, nurse, dentist, or another member of your health care team know immediately. Relieving side effects, also called symptom management, palliative care [15], or supportive care, is an important part of cancer care and

treatment.

The specific treatment your doctor recommends will depend on your symptoms. Common treatments for dental and oral side effects include:

- Mouth rinses that contain salt and baking soda may help treat mouth sores. However, if you are taking high blood pressure medication, you may need to avoid mouth rinses with salt. In addition, there are a variety of prescription rinses that may soothe sore spots.

- Pain medications [16], including narcotics, may also be used to treat pain from mouth sores. Medications may be placed directly on the sores, taken by mouth, or be given through an IV.
- Antibiotics, antiviral drugs, and/or antifungal drugs are used to treat infections.
- Drinking water and sugarless drinks may help manage dry mouth. Sucking on ice chips may also help. Try to avoid things that will dry out the mouth, such as soda, fruit juice, cigarettes, chewing tobacco, and alcohol.
- Medications that stimulate the production of saliva may be recommended for some people to help prevent or minimize drug mouth. For others, topical oral gels or other medications may be prescribed for dry mouth caused by radiation therapy to the head and neck. Talk with your doctor.

More Information

ASCO Answers Fact Sheet: Dental and Oral Health (PDF) [17]

Side Effects [18]

Fear of Treatment-Related Side Effects [19]

Diet and Nutrition [20]

Additional Resource

National Institute of Dental and Craniofacial Research: Cancer Treatment and Oral Health [21]

Links:
[1] http://www.cancer.net/navigating-cancer-care/side-effects/dental-and-oral-health
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/patient/Multimedia/Podcasts/Files/Dental_Health_During_Cancer_Treatment.mp3
[4] http://www.cancer.net/node/25047
[5] http://www.cancer.net/node/25051
[6] http://www.cancer.net/node/25046
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[17] http://www.cancer.net/sites/cancer.net/files/asco_answers_dental_oral_health.pdf
[18] http://www.cancer.net/node/25238
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[21] http://www.nidcr.nih.gov/OralHealth/Topics/CancerTreatment