



Cancer Survivorship Patient Education on Post-Treatment Care

Xerostomia

David Cognetti, MD

What is the condition?

Xerostomia is the medical term for dry mouth. This condition occurs when a person has a decrease in the production of saliva. Dry mouth can negatively impact a person's quality of life by interfering with functions such as eating and speaking and can lead to other medical conditions affecting the mouth.

How common is it among head and neck cancer patients?

Dry mouth is very common amongst head and neck cancer patients due to radiation treatments. It is expected that 90-100% of head and neck cancer patients treated with radiation will develop some degree of oral complication, with dry mouth being the most common. Dry mouth is due to direct damage to the salivary glands by radiation, which destroys the ability to make saliva. In addition to the major salivary glands that exist on the sides of the cheek and under the jaw, there are hundreds of minor salivary glands that line the inner lining of the mouth and throat that are affected as well. Irreversible damage to salivary tissue can occur with doses as low as 26 Gy, which is less than half the dose typically used to treat head and neck cancer.

What are the signs/symptoms?

The most immediate signs are oral dryness and thickened saliva that are not resolved by drinking water. Depending on the degree of xerostomia, patients may experience burning sensation as well as difficulty with swallowing and speaking due to lack of lubrication. Saliva plays an important role in the health of the mouth, including cleansing of the oral lining, protection of teeth, as well as antibacterial activity. Because of this, long-term dry mouth can lead to bigger problems. These problems include dental cavities and decay, oral thrush, as well as infections of the gums, salivary glands, and jaw.

How is it diagnosed?

Dry mouth is diagnosed by a thorough examination and review of symptoms by a physician or dentist. Due to the long-term side effects, all head and neck cancer patients should review their symptoms and be evaluated by their treating head and neck surgeon. Although salivary output can be measured, it does not correlate well with the degree of symptoms and has little impact on management.

How is it treated?

As the old proverb states, an ounce of prevention is worth a pound of cure. Fortunately, radiation and surgical treatments for head and neck cancer have changed over the years with the specific goal of minimizing the number of patients with long-term dry mouth. These treatments are much improved in comparison to treatment approaches used just 10 years ago. Patients should review their cancer treatment option with their head and neck surgeon and treatment team. Infections of the jaw is one of the most serious side effects in patients who have had radiation to their head and neck. Because of this, all patients who require radiation to the head and neck should be evaluated by an oral surgeon. Often times, teeth extractions are recommended prior to radiation.

Unfortunately, despite the progress with head and neck cancer treatment, dry mouth remains very common. Although dry mouth can improve for up to two years after completion of radiation treatment, it rarely completely resolves and there are no treatments that can reverse the salivary gland damage. Treatment is limited to minimizing symptoms and prevention of long-term complications. While medications exist that stimulate saliva production, these drugs are not effective in all patients and are limited by side effects.



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Patients with dry mouth should do the following to minimize symptoms and side effects:

- Maintain hydration with water intake
- Avoid dehydration by minimizing caffeine and alcohol intake
- Consider the use of salivary substitutes or salivary stimulants
- Avoid sugar containing gum or soft drinks
- Use alcohol-free mouth rinses (chlorhexidine) to maintain oral hygiene
- Maintain routine dental visits
- Use fluoride trays or drink fluoridated tap water

When should I call my doctor?

Call your physician if you develop any signs of infection of your mouth, teeth, or jaw. Signs include pain, swelling, redness, drainage and fevers.

Where can I learn more?

<http://www.webmd.com/oral-health/guide/dental-health-dry-mouth#1>

<https://www.nidcr.nih.gov/OralHealth/Topics/DryMouth/DryMouth.htm>

<https://medlineplus.gov/drymouth.html>