Dental Care in Head and Neck Cancer

If you have head and neck cancer, your treatment plan may include radiation therapy. When the area of radiation (called the radiation field) includes your salivary glands, it can cause both short and long-term damage to these glands. This can cause your body to make less saliva (spit). Saliva prevents cavities and tooth decay, and helps with speech and swallowing. Saliva production can get better over time but may be a long-term issue for some patients. Changes to your saliva can affect your quality of life and dental health.

Radiation can also raise your risk of osteonecrosis of the jaw. Osteonecrosis causes your jawbone to have a hard time healing after minor trauma. It may happen after a dental procedure (such as pulling a tooth) or can start as jaw pain or being unable to open your jaw. Dental care is an important part of head and neck cancer treatment and survivorship to lower the risk of these issues and to help your quality of life.

How do I care for my mouth and teeth after treatment?

By taking the right steps to care for your mouth after radiation, you may be able to prevent or lessen some of the long-term effects from radiation. These side effects are:

- **Xerostomia** (dry mouth).
- Tooth decay/loss.
- **Trismus** (being unable to open the jaw normally).
- **Osteonecrosis**.
- **Candidiasis** (a type of yeast infection; also called thrush).

Below are ways for to prevent and treat these side effects.

**Xerostomia (Dry Mouth)**

- **Hydration**: Make sure you drink enough water and other fluids that don't have caffeine, alcohol, or sugar. Often, eight glasses a day is recommended. Keep water handy to keep your mouth moist throughout the day.
- **Saliva Substitutes**: There are a few over-the-counter and prescription gels, lozenges, and sprays that can be used in the mouth as a saliva substitute. One may work better for you than another, so you may have to try different kinds. Make sure to follow the directions on the package for proper use.
- **Alcohol-free mouthwash**: Alcohol can increase the dryness in your mouth. When using mouthwash, use one that is alcohol-free.
- **Stimulation of the salivary glands**: Chewing is the best way to simulate (rev up) the flow of saliva in your mouth. Chewing sugarless gum is an easy way to do this. Sucking on sugar free candies, especially sour ones, can make more saliva. Acupuncture and/or massaging of the masseter muscle (sideburn area) may help also.
- **Humidify**: Use a cool mist humidifier at night to make more humidity in your room.

**Tooth Decay (Cavities/Caries)**

- Stay away from food and drinks that are sweet, acidic, or carbonated (like soda or seltzer).
- Rinse your mouth and brush your teeth after meals and at bedtime.
- Fluoride can be applied to your teeth in a few ways, including as a gel, in custom dental trays, or as a varnish done three times per year. You and your dentist will decide which fluoride treatment will work best for you and what your insurance coverage is for these treatments. In some cases, it can be covered under medical insurance.
**Trismus (Reduced Opening of the Jaw)**

- Trismus is being unable to open your mouth normally. This can cause you to have a hard time eating, speaking, and doing dental/mouth care. Trismus is caused by damage to the muscles and nerves that help with chewing or opening the jaw, which can happen after radiation or surgery.
- Exercises to prevent trismus should start before radiation treatment and continue for the rest of your life. You will be taught how to do exercises that keep the maximum opening of the jaw. These exercises should be done 3-4 times a day. How wide you can open your jaw will be measured before, during, and after treatment.
- Physical therapy (PT) may use tongue depressors or things such as TheraBite® and Dynasplint to exercise and stretch the muscles to help with mobility and flexibility.

**Osteonecrosis (Bone Death)**

- Prevention of osteoradionecrosis (osteonecrosis caused by radiation) includes good oral care and removal of damaged teeth prior to starting radiation. Treatment, once it happens, is hard and the side effect itself can be very painful.
- Hyperbaric Oxygen Therapy: You will sit in a chamber that increases atmospheric pressure, which allows you to breathe in highly concentrated oxygen. This increases the amount of oxygen exposed to the damaged area and helps with healing. Therapy often lasts about 2 hours per day for up to 80 sessions. You may have surgery to remove parts of the damaged bone prior to hyperbaric therapy.

**Oral Candidiasis (Thrush)**

- Practice proper oral hygiene, following the advice of your dentist. This is especially a concern if you wear dentures.
- Antifungal medications treat the actual infection. They may also be used to prevent or treat thrush.

Dental care in the head and neck cancer patient is very complex and may differ from patient to patient. It is important that you work with your care team and your dentist about proper mouth care and any side effects that you may have. You will most likely see your dentist at least every 6 months. You may be seen more often if you are having side effects. Insurance coverage varies and these treatments may be covered under dental or medical insurance, depending on the company and policy. Speak with your insurance company regarding your coverage.