



Cancer Treatment:

Patients who undergo cancer treatment usually face three types of therapy: Chemotherapy, radiation therapy, and surgery. Each of these treatments presents unique challenges to oral health.

Chemotherapy

The medications used in chemotherapy also cause great damage to your immune system. Any type of infection in your body can become severe once chemo is started. For this reason, medical oncologists require that all oral infections be eliminated prior to beginning chemotherapy. Frequently, the time from when a patient is diagnosed, until the time chemotherapy can begin, is as little as three weeks. Postponing life-saving chemotherapy because of tooth or gum infections is something no one wants.

Here at Sandlin DDS, we coordinate care for oncology patients entering chemotherapy. We screen referrals for all types of oral and dental infections, and then develop a fast-track plan to eliminate those problems which would otherwise postpone their cancer treatment. Problems might include abscessed teeth, and gum or bone disease.

Radiation Therapy

Oral cancer is increasing in frequency, and we see more and more patients undergoing treatment. For most types of oral cancer, radiation treatment is prescribed. Unfortunately, radiation to the face, neck, and throat has devastating effects on a patient's overall oral health. It all has to do with the salivary glands. Saliva starts the process of digestion and begins to break down food as you chew. It's also your body's defense against tooth decay, and it protects and lubricates the skin cells lining your mouth.

Radiation patients usually have two challenges: 1) Dry Mouth; and 2) Aggressive Tooth Decay.

Dry Mouth

With the loss of saliva flow, eating, swallowing, and speaking become painful. Loss of taste and sensitivity to foods becomes a problem. Gum tissues also become inflamed as the biology of the mouth changes to a drier environment. When the body most needs nutritional support, radiation patients face an unpleasant experience with every meal. Imagine living with dry, cracked lips, swollen gums which bleed to touch, altered taste to where nothing is appetizing, and pain when you try to swallow. The effects of Dry Mouth can be devastating.

Aggressive Tooth Decay

Even under normal circumstances, bacterial plaque grows around your teeth and produces acid. If enough bacteria are allowed to grow, this acid causes cavities, or holes in your tooth structure. Acidic foods can also demineralize and erode your protective tooth enamel.

In both of these cases, saliva usually repairs the damage caused by bacterial and food acids. This helps maintain hard healthy teeth. Radiation destroys the saliva glands and patients are left with a permanent loss in saliva volume and quality. Even if patients experience partial recovery of saliva volume, the



reparative minerals and proteins are no longer present. This leads to rapid breakdown of tooth structure and function.

Without the protection of saliva, and the buffering capabilities of the normal minerals and proteins, bacterial acids destroy health tooth structure at a rapid pace. I've seen unaffected tooth structure develop cavities so deep that root canals and crowns were necessary, this in fewer than six months! Usually, the decay process takes years to develop. Without the saliva's minerals, exposed tooth roots also become demineralized and extremely sensitive to hot, cold, and sweets.

Here at SandlinDDS, we support radiation patients to prevent tooth damage, and to ease their struggle with dry mouth. Several new prescription products have been release in the last year, which help oral tissues remain moist. We also encourage radiation patients to see our hygienist four times a year for cleanings and to receive high dosage fluoride treatments, both in order to reduce their exposure to bacterial plaque. Prescription fluoride gels are also used instead of toothpaste, to promote remineralization in areas of acidic damage.

Surgery

Surgical removal of oral cancers can be aggressive and disfiguring. Usually, at least some part of the surrounding jaw and teeth must be removed.

Traditional restorative techniques can often be used, but usually in non-traditional ways. Unusual bone and gum contours, changes in the supporting jaw, and thinning of the gum tissue or grafts, all make restoration of these cases quite challenging. Recent advancements in implant placement can provide attachment anchorage for large prosthetic appliances, when large sections of the face and jaws must be replaced.