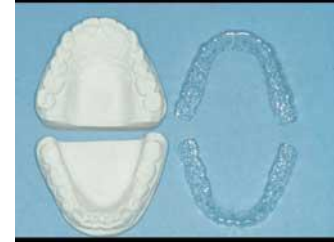


Patients with Head & Neck Radiation: Dental Protocols

- **When the patient begins radiation therapy, any suspect teeth should already have been extracted or restored, and the mouth should be infection and caries-free.**

Diligent Oral Care is paramount for the patients receiving *External Beam Radiation Therapy* (EBRT) of > 5000 cGy to the Head and Neck. These patients are susceptible to an increased risk of:

Osteoradionecrosis (ORN)	M27.2
Infection	M27.2
Xerostomia (Dry Mouth),	K11.7
Radiation Caries of Root Surfaces	K02.7
Diminished oral hygiene and care	K05.37
- from Trismus/Fibrosis	R25.2, K13.5



Professional Fluoride Trays

Prior to Radiation Treatment

- **Oral Examination/Cleaning** – Patients with upcoming radiation should be scheduled promptly for a Dental oral examination, radiographs, fluoride trays, scaling and root planning. Education should include the potentially harmful effects of radiation therapy on the teeth and jaws, the need for meticulous oral hygiene, and frequent dental cleanings and examinations.
- **Removal of Teeth** – Prior to radiation removal of failing teeth is recommended to decrease the risk of Osteoradionecrosis (ORN). Removal is recommended for teeth with non-restorable decay or fractures, moderate to severe periodontitis, periapical lesions and/or deep cervical decay. After radiation therapy, Hyperbaric Oxygen Therapy (HBO) is recommended before any oral surgery to decrease the risk of ORN.
- **Fluoride trays** - (Code D5986) Trays for fluoride therapy should be made for the patient prior to radiation therapy with instructions for nightly use. High risk patients for dental caries may require fluoride therapy twice daily. The recommended course is six drops per arch of fluoride gel in each tray nightly after brushing teeth. Expectorate excess fluoride after placement of the trays, and rinse vigorously after the 5 minute therapy.
***5,000 ppm fluoride gel [such as PreviDent 5000 Plus (Colgate), Fluoridex (Discus Dental), and ControlRx™ (3M OMNI)]**
- **Temporary Restoration of Carious Teeth** – Often due to time constraints prior to radiation treatment, temporary restorations are placed in restorable carious teeth. For deeper and more caries-prone areas Dr. Gordon Christensen recommends cariostatic materials such as **Ketac™ Nano (3M ESPE), Fuji II LC, or Fuji IX (GC America)**.

Post Radiation Therapy

- **Restorations** – Allow 6-12 weeks of healing to minimize the radiation induced mucositis following completion of radiation therapy. Material choice for restoring temporary restorations is up to the dentist and patient to satisfy the functional and esthetic desires of the patient.
- **Oral Hygiene Education and Maintenance** - Meticulous oral hygiene must be practiced during and after radiation therapy. Frequent hygiene appointments and dental exams are recommended. The Dentist should be diligent in caries control and pay particular attention to the susceptibility of cervical caries due to Xerostomia (Dry Mouth) affecting these patients. Fluoride trays should be continued.

Ref: 1) <http://www.nidcr.nih.gov/oralhealth/Topics/CancerTreatment/HeadNeckRadiation.htm>
2) <http://www.nidcr.nih.gov/oralhealth/Topics/CancerTreatment/OralComplicationsCancerOral.htm>
2) Dental Economics: v. 99, issue-6 "ask-dr-christensen"