

Cancer treatment and oral health

Cancer treatment delivered via radiation and/or chemotherapy can lead to many debilitating oral conditions. Radiotherapy can have direct effects on salivary glands and oral tissues when they fall within the field of radiation exposure. Oral mucositis is experienced in 60% to 70% of patients and can often lead to disruption of treatment and significant discomfort. Candida yeast infections occur in nearly half of head and neck radiation patients, and xerostomia or dry mouth can be as frequent as 80%. A condition called radiation caries can more than double the rate of new tooth decay.^{1,2} This decay is most often on the tooth root surfaces where restoration is very difficult. Tissues adjacent to large metal fillings and crowns are often damaged by scatter radiation during treatment.³ Chemotherapy also has a direct effect on salivary glands leading to dry mouth, mucositis, yeast infections and an increase in tooth decay.^{4,5} Bisphosphonate drugs used in many chemotherapy regimens result in an increased risk for osteonecrosis of the jaw, a very difficult condition where bone tissue is lost to infections.⁶

Research has shown that many of these side effects can be avoided or greatly reduced with diligent oral care and participation by a dental team in the overall cancer treatment.⁷ Early intervention in the pre-treatment workup can reduce oral complications by completing all necessary restorations, removing teeth with a poor prognosis prior to cancer treatment and establishing a preventive plan that includes increased recall. Completing pre-treatment oral care not only reduces the chance of many side effects during treatment, but also reduces the risk of future complications such as osteonecrosis of the jaw due to extraction of teeth post-treatment. Post-treatment regimens should include topical fluoride and home care adjuncts such as antimicrobial mouth rinses, high fluoride toothpastes, remineralizing products, salivary substitutes and perhaps saliva enhancing medications.^{8,9} Frequent maintenance appointments can detect and treat conditions like mucositis and fungal infections at early onset and reinforce the higher level of oral hygiene needed in post-treatment patients. Maintaining good oral health is a difficult challenge for cancer patients and early and frequent participation by a dental team is essential.

EBICP benefits for persons undergoing cancer therapy

With an indicator for cancer-related chemotherapy and/or radiation, a participant is eligible for up to two additional dental visits in a benefit year for periodontal maintenance or adult prophylaxis. Participants are also eligible for topical fluoride application beyond the age limitation of the group contract. Coverage will be at the group-contracted benefit level. There is no end date on this additional coverage. There is no age requirement and the patient may be the subscriber, spouse or other covered dependent.

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- ⁴. Long-term effects of chemotherapy on caries formation, dental development, and salivary factors in childhood cancer survivors. Avsar A, Elli M, Darka O, Pinarli G. *Oral Surg Oral Pathol Oral Radiol Endod*. 2007 Dec;104(6):781-9. Epub 2007 Jul 6.
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- ⁸. Treatment of head and neck cancers: issue for clinical pharmacists. Scarpace SL, Brodzik FA, Mehdi S, Belgam R. *Pharmacotherapy*. 2009 May;29(5):578-92.
- ⁹. Caries clinical trial of a remineralizing toothpaste in radiation patients. Papas A, Russell D, Singh M, Kent R, Triol C, Winston A. *Gerodontology*. 2008 Jun;25(2):76-88.

Delta Dental of Wisconsin

Stevens Point Office

P.O. Box 828

Stevens Point, WI 54481

800-236-3713 (toll-free) • Fax 715-343-7623

Milwaukee Office

1233 North Mayfair Road, Suite 204

Milwaukee, WI 53226

888-456-2711 (toll-free) • Fax 414-607-6088

Madison Office

725 Heartland Trail, Suite 205

Madison, WI 53717

877-577-7449 (toll-free) • Fax 608-831-9384

www.deltadentalwi.com