

Editorial

Addressing Oral Health in Children with Cancer

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Dental decay (caries) is the most common disease in mankind. The good news is we know how to prevent it. The bad news is that it can be a challenge to do so especially in children who are genetically more at risk for caries or whose medical situation puts them at higher risk. Caries is the result of bacterial plaque in the mouth converting sugars and refined carbohydrates into acids which attack the tooth enamel and in time produce a cavity. Brushing the teeth twice a day with the age appropriate amount of fluoride containing toothpaste and, ideally, flossing the teeth once a day can disrupt the bacterial plaque, help dislodge retained food particles and clean the teeth. These daily home oral hygiene practices are also especially important for the health of the gums.

However, children who are receiving aggressive chemotherapy or radiation to the head and neck for cancer often make performing these oral hygiene practices a challenge. In addition the salivary glands are often affected reducing the amount and quality of the saliva, and saliva is an important part of our body's defense against cavities and to keep our soft tissues moist and healthy. Often these children in time experience a generalized inflammation of the gums and other soft tissues of the mouth due to the suppression of the immune system and damage to the salivary glands by either the chemotherapeutic drugs or the radiation to head and neck. When this occurs it is not uncommon for ulcers (mucositis) to appear in the mouth that can be painful, making the child miserable [1-3].

The diet is often reduced to very soft foods and liquids, many of which may be rich in sugars. This makes brushing and cleaning the teeth extremely uncomfortable and challenging. It may force us to resort to the use of spongetts (small sponges attached to a plastic handle) to swab the teeth and do the best we can to clean them. But, these devices are a poor excuse for a toothbrush. Often the child's

doctor can prescribe something to paint on the gums to help "numb" them while the mouth is cleaned and to help treat the ulcers, and a special alcohol-free mouthwash containing 0.12% chlorhexidine can also be helpful. However, there are things we can do to delay, and sometime prevent these painful conditions from occurring. The most important is to maximize the mouth cleaning before the problems occur. If good oral hygiene habits have not already been established, it is important to implement them before the body's immune system has been damaged. In other words, prevention is better than treatment. Once the child has completed their active chemotherapy the saliva glands will recover. However, this recovery is less if they were damaged due to any necessary radiation therapy and will place the child at greater risk for future cavities due to the reduction of saliva.

After brushing the teeth at night, a daily use of a fluoride mouth rinse containing 0.05% fluoride can be very helpful in reducing the incidence of cavities in children 6 years of age or older and who can rinse for 30-60 seconds without swallowing. This is a good practice for all eligible children.

The reduction of sugars and refined carbohydrates, such as cookies, candy and soft-drinks, in the diet may be the most effective caries preventing practice. The bacteria in the mouth require these agents to generate the acids that breakdown the dental tooth structure. It should be noted that bacteria can also create these acids from so-called "natural sugars" such as honey. If a sweetener is needed to make a drink or food substance more palatable to the child, then sucralose/dextrose/maltodextrin (Splenda®) or stevia are acceptable alternatives (you can even bake with them) that provide sweetness but are not converted into acid by the mouth's bacteria. Remember, cheese is a great snack food unless milk intolerant. It is nutritious and it actually has some anti-cavity qualities!

References

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