

## COMMUNITY ORAL HEALTH PROMOTION DIET & NUTRITION<sup>1</sup>

### 1 Introduction

- 1.1 The role of dietary carbohydrates (especially monosaccharides and disaccharides) in the causation of dental caries is well established. The process of caries initiation consists of the uptake of carbohydrates by bacteria in the dental plaque (mainly streptococci) to produce organic acids. The production of these acids causes the pH of dental plaque to fall below the critical level leading to demineralization of tooth enamel. This leads to dental caries in susceptible individuals. The form, frequency and timing of sugar intake is significant in the initiation of the caries process.
- 1.2 Severe malnutrition, which is extremely rare in Australia, can damage the structure of a tooth in its formative stage.
- 1.3 There is no evidence that nutritional supplements, other than fluoride, will improve the structure or function of the oral tissues. There is an optimal level of fluoride exposure that is protective against caries and non-cariou tooth loss. Beyond this optimal level, the structure of enamel may be altered in some people during the formative stages of teeth causing fluorosis (or tooth mottling).
- 1.4 Causes of non-cariou tooth loss include the consumption of soft drinks, sport drinks, fruit and fruit juices, wine, pickles and chewable vitamin tablets.
- 1.5 **Definitions**
  - 1.5.1 DIET is defined as the types and amounts of food eaten by an individual.
  - 1.5.2 NON-CARIOUS TOOTH LOSS is the loss of hard tissues of the tooth by the direct action of acidic substances and wear.
  - 1.5.3 NUTRITION is the intake and absorption by the body of nutrients.

### 2 Principles

- 2.1 This Policy Statement is consistent with the dietary guidelines developed by the National Health & Medical Research Council.
- 2.2 Sugar-free confectionery, including chewing gums, are dentally safe alternatives to caries-producing confectionery containing sugar. However, the main objective of oral health education is to encourage individuals to seek out less sweet foods and thus reduce the need for sugar and sugar substitutes.

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<sup>1</sup> This Policy Statement is linked to other Policy Statements: 1.2.1 *Community Oral Health Promotion: Fluoride Use*; 1.3.1 *Delivery of Oral Health Care: Special Groups: Children*; 1.3.2 *Delivery of Oral Health Care: Special Groups: Adolescents and Young Adults*; 1.3.3 *Delivery of Oral Health Care: Special Groups: Aged Persons*; & 4.14 *Dentist's Relationships with the Pharmaceutical Industry*.

### 3 **Policy**

- 3.1 Public education campaigns must promote beneficial dietary behaviour, particularly in relation to the oral health risks from sugar and acidic foods. Special emphasis should be placed on the form, frequency, and timing of sugar consumption, particularly snacking on sugar-containing foods.
- 3.2 Acidic foods and drinks should be avoided when an individual is at high risk of developing caries or erosion of teeth. Risk situations include:
- individuals with diseases which lead to a reduction in salivary flow;
  - exertion resulting in a dry mouth;
  - individuals using medication(s) which lead to a reduction in salivary flow;
  - sipping drinks, other than water, during interrupted sleep; and
  - chewing and sucking acidic vitamin tablets.
- 3.3 Dietary education should be targeted to specific high risk age groups:
- Infants and babies — sleeping with comforters, bottles or night feeders containing any sugar products, including milk and fruit juices, should be discouraged.
  - Children and young adults — frequent consumption of drinks and foods with high sugar and/or acid content should be discouraged.
  - The elderly — increasing the sugar content in the diet of elderly persons, due to their increased risk of caries from reduced saliva levels and more exposed root surfaces, should be discouraged.
- 3.4 Care should be taken to ensure children are not exposed to excessive amounts of fluoride during their tooth development.
- 3.5 The pharmaceutical industry should eliminate the use of sugars and acids as additives in medications taken orally.
- 3.6 Oral health education should encourage individuals to seek out less sweet foods reducing the need for sugar and sugar substitutes.
- 3.7 Long term, high alcohol consumption should be avoided as it significantly increases the risk of oral cancer.

#### **Policy Statement 1.2.2**

Adopted by ADA Federal Council, November 21/22, 2002.  
Amended by ADA Federal Council, November 2/3, 2006.  
Amended by ADA Federal Council, April 12/13, 2007.  
Amended by ADA Federal Council, April 16/17, 2009.

