



POSITION PAPER

Nutrition Division, Bureau of Family and Community Health
Massachusetts Department of Public Health

The Use of Fruit Juice with Infants and Preschoolers

Introduction

The Nutrition Division, Bureau of Family and Community Health, Massachusetts Department of Public Health offers and supports an array of health and nutrition programs serving persons of all ages throughout the Commonwealth. The WIC Nutrition Program and the Combined Primary Care Programs (CPCP) are two of the programs within the Nutrition Division Bureau, which serve women, infants, children and adolescents who have or are at risk of developing nutrition-related health problems. The programs strive to improve maternal and child health by providing nutrition education and counseling. Primary goals are to help participants establish dietary patterns that promote life-long good nutritional health, provide the tools by which participants apply the nutrition knowledge gained from counseling and education to make dietary changes, and provide participants with a reliable source of nutritious supplemental foods.

Problem Statement

Consumption of fruit juice (all kinds including 100% fruit juices) by the pediatric population has increased dramatically in recent years. Children are the single largest group of juice consumers. Children younger than 12 years account for about 18% of the total population, but consume 28% of all juice and juice drinks. Juice consumption typically begins at 4 to 6 months of age (4). Excessive juice consumption and the resultant increase in calories are linked to an increased risk for childhood overweight and obesity. In addition, excessive juice consumption is closely linked to the malabsorption of carbohydrates (resulting in chronic diarrhea, abdominal pain, bloating, and flatulence), abnormal growth patterns, and dental caries in some children (2).

Role of the WIC and CPCP Nutrition Programs

- A. WIC and CPCP nutritionists provide an individualized and comprehensive assessment of the child's diet, including screening for excessive consumption of fruit juice.
- B. WIC and CPCP nutritionists provide anticipatory guidance and feeding strategies to help parents and caregivers recognize the numerous physiological effects of excessive consumption of fruit juice. Guidance to parents and caregivers will include the following recommendations:
 - Fruit juice offers no nutritional benefit for infants younger than 6 months and should not replace breastmilk or infant formula to ensure adequate intake of essential nutrients for growth, specifically protein, fat, iron, calcium, and zinc.
 - Fruit juice should be only introduced into the diet when the infant can drink from a cup – around 6 months of age.
 - 100% fruit juice can be part of a healthy diet when consumed as a component of a well-balanced diet. Intake of fruit juice for infants (6-12 months) and children (1-5 years) should be limited to 4-6 oz/day of full strength juice.
 - Fruit drinks and artificially-flavored juices are not nutritionally equivalent to fruit juice and should not be included in the diets of infants and children. Apple and pear juices should only be fed in small amounts and diluted to avoid side effects, such as chronic diarrhea, from the malabsorption of carbohydrates.
 - Juice should be given in a cup as a part of a meal or a snack while seated at a table. Infants and children should not be given juice in a bottle or at bedtime.

- All children should be encouraged to eat whole fruits to meet their recommended daily fruit intake. Juice should not replace more than one serving of fresh fruit of the Food Guide Pyramid recommendation of 2-3 servings per day.
- Avoiding frequent exposure to sugars from fruit juice to reduce the risk of dental caries in children.
- Establishment of good eating patterns and habits to decrease the incidence of malnutrition – both over and under nutrition, carbohydrate malabsorption, and incidence of dental caries in children. The following educational messages and information are provided to all parents and caregivers:
 - use a cup when offering fruit juice
 - offer water on a regular basis instead of juice when children are thirsty
 - offer only 100 % pasteurized fruit juice
 - recognize the importance of establishing healthy eating behaviors, which includes limiting juice intake to no more than 4-6 ounces per day for children 1-6 years of age, and restricting sugar
 - read beverage bottle labels for sugar content and hidden sugars.
- Good oral hygiene for infants and young children, including brushing teeth, should begin when the child's first tooth erupts. Visiting the dentist should begin at age 12-15 months.

References

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