

HOME ECONOMICS GUIDE



Published by the University of Missouri-Columbia
Extension Division
College of Home Economics

NOV 09 1978

Teaching Dental Health & Dietary Selection

Ann A. Hertzler, Ph.D., R.D.
Nutrition Extension
Specialist

Harvey C. Carlson, D.D.S.
Associate Professor
UMC-Kansas City
School of Dentistry



Children and adults do not automatically choose foods they need for health and growth. People need to learn to select foods to help keep them healthy and to develop habits that promote optimal health. Learning experiences to promote dental health need to include both dietary aspects and routine care of the teeth. Supplementary information can be obtained from *Nutrition and Dental Health*, GH1987.

Food Habits

Food habits are the greatest single factor influencing the growth and health of teeth because 1) the diet contains the nutrients for the growth of teeth and 2) the form and frequency of eating "sweets" influences the amount of tooth decay. Thus, an important teaching activity in dental health is the study of food habits.

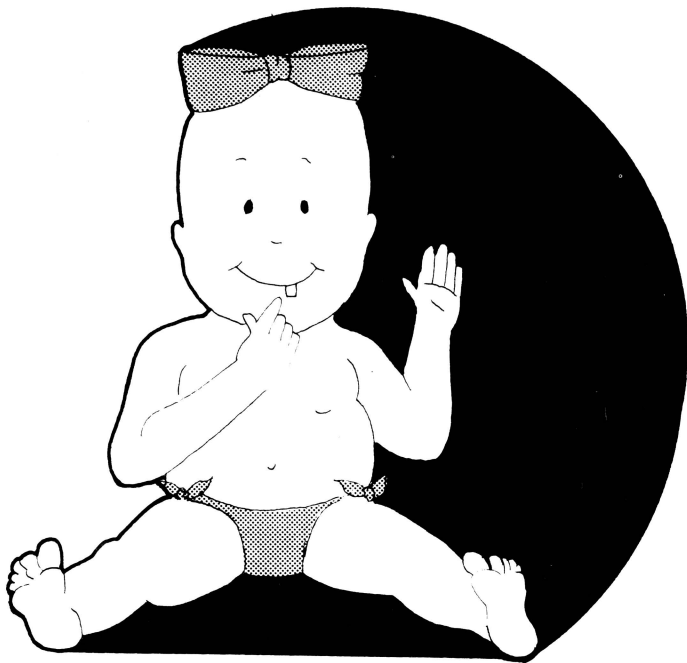
Objective: Students will record their food intake for 24 hours or keep a food record for three to seven days, and then evaluate the record in relation to their dental health.

Have each student record a 24-hour recall (see GH1988: *Interviewing For 24-Hour Recalls*). A 24-hour period could be yesterday from the time you got up, until you went to bed, or from this time yesterday until this time today.

After recording food intake for 24 hours, have each student analyze his own record for nutritional adequacy. Beginning students (children or adults) can check for nutritional adequacy by rating their food pattern by the Basic Four (see back page). Are all four food groups present? Are the recommended servings for each group represented? How many "extras" such as sugar, jelly, salad dressing and spreads are present? What foods need to be added to daily food patterns?

More advanced students (children or adults) can evaluate their 24-hour recall by calculating the nutrient content using a resource such as *Home and Garden Bulletin 72 (MP339)* and comparing nutrient intakes with recommended allowances (*Home Economics Guide 1903*). Students can do additional research in their community to calculate intakes of fluorine or iodine.

In addition to studying the kinds of food they eat, students can analyze the 24-hour recall to note when they eat different kinds of foods. When were sticky sweets consumed—were they with meals, snacks, alone or with other foods? What foods are best to eat at snack time in order to prevent dental caries?



Teeth Growth

Identifying the process of how teeth grow illustrates nutrient needs and critical growth periods. Compare these times with the food habits of families.

Objective: Students will trace the growth and development of teeth.

First teeth and food habits should begin the discussion. Young students will have fun reporting when their first tooth appeared and when they lost their first tooth. Students may need to check their baby book or with their parents. They can report how many baby teeth they had and when baby teeth appeared. Have students study charts and make reports on when first teeth start to form and how many there are. Talk with dental professionals about dental care of first teeth.

What kinds of foods are given to babies to “teeth on?” (See recipe for Teething Biscuits in “Cookies for Children” C802.) Young students or young parents will be interested in observing infants who are getting their first teeth and comparing ideas on how babies act while teething. What kind of teething foods should be given? What kind should be avoided? Which ones contain sugar? Which ones are sticky foods?

What kinds of foods are given to the “fussy” baby at sleeping time? What is the *nursing bottle syndrome*? How can it be prevented? Instead of giving a baby a bottle to fall asleep, what alternatives are there? Talk with child care specialists to obtain care ideas which can be used instead of food.

Second teeth and food habits should follow the previous discussion. Have students study how many second or permanent teeth they have. When did second teeth start to appear? When did the last of the permanent teeth appear? When do second teeth start to form?

Look at charts to identify the kinds, number and different functions of teeth.

Talk with dental professionals about dental care. How should individuals take care of their teeth? How often should they visit the dentist for check ups?

Teeth Description

Discussing and picturing the parts of the tooth structure helps explain the process of decay and loss of teeth.

Objective: From posters, charts or models, students will identify the structure of teeth: the enamel, dentin and periodontal tissue.

Have students study the structure of teeth using posters, charts, or models. Identify the enamel, the dentin, and the periodontal tissues. How does the tooth grow? How is it nourished? How does the tooth decay?

How many of the group have had a dental checkup? How many have had a tooth filled? How many have had a secondary tooth extracted?

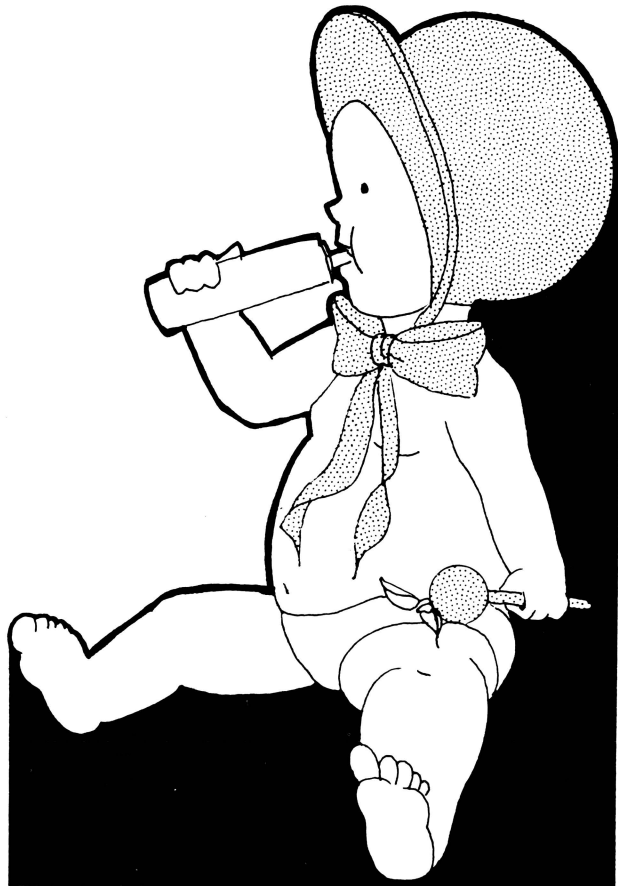
Bacterial Growth

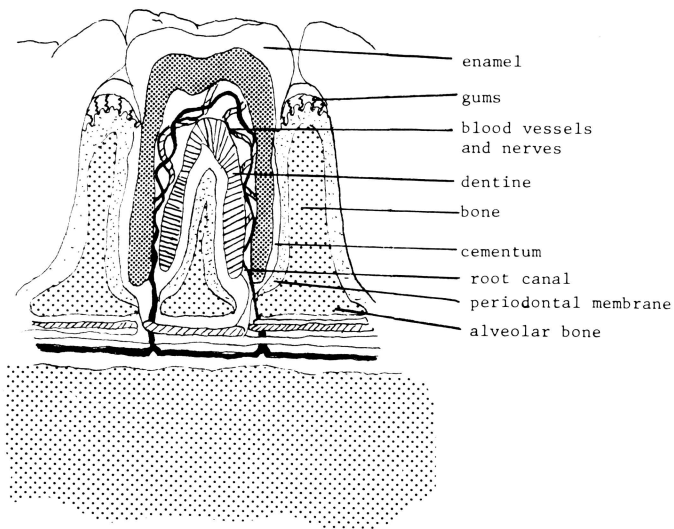
Bacteria grow on the surface of teeth. Habits encourage or discourage the growth of bacteria that cause tooth decay.

Objective: Students will compare the growth of bacteria with food and dental health practices.

Study bacteria in the mouth by doing the Experiment *How Bacteria Grow* (*Home Economics Guide* 1971).

- Prepare jars, test tubes, or plates with nutrient agar.
- Use a control which has not been contaminated.
- Prepare before and after samples to compare with





Parts of a tooth

the control by contaminating the agar with samples from the tooth surface before and after brushing, before and after a meal, and before and after a “sticky sweet” snack.

- Label each sample.
- Cover and place at room temperature and observe growth for several days. **Do not put in direct sunlight** because sunlight will destroy the bacteria. Which samples had bacterial growth? Did some samples have more bacterial growth than others? Which ones? Why?

Values

Use a value clarification game with a group of students to see how they feel about their food habits and what their food habits actually are.

Objective: Students will relate food habits to dental health practices through value clarification.

FOODS		1	2	3	4	5
1	Pizza		/			
2	Gumdrops			/	/	/
3	Peanut Butter	/			/	
4	French Fries		/			
5	Cola	/		/		/
6	Ice Cream		/			/

By listing favorite foods students can figure out food habits and identify which ones cause dental caries.

Rule a sheet of paper with 20 lines. Make five ¼ inch columns on the right side. Number the columns 1 to 5 from left to right. Have students rule their own paper or make forms up ahead of time.

- Have each student list 20 favorite foods on the lines.
- When students are finished, ask the following questions:

In column 1, check those foods which you have eaten in the past 24 hours. (pause)

In column 2, check those foods which you have eaten in the past week. (pause)

In column 3, check those foods which you eat as snacks. (pause)

In column 4, check those foods which stick to the teeth. (pause)

In column 5, check those foods that contain sugar. (pause)

Use this value game to discuss food habits, dental caries, and how and when sugar-containing foods can be included in the diet.

Other Alternatives

Have a dentist or dental hygienist talk with the students about care of the teeth or write to the American Dental Association, 211 E. Chicago Ave., Chicago, IL, 60611, for their catalog of teaching materials. Also check with the National Dairy Council.

Objective: Students will observe the technique of proper dental health care.

Discuss and demonstrate:

- Care of tooth brushes.
- What to look for when buying a tooth brush.
- How to brush and floss.
- Use of disclosing solution to identify plaque.
- Why fluoridation is recommended.
- How x-rays are used to detect decay.
- Books for small children about visits to the dentist.
- How the dentist cleans and checks teeth.

Food Intake	Time of Day	Milk Group	Meat Group	Fruit & Veg. Group			Bread & Cereal Group	Extras	
				Vit. A	Vit. C	Other		Fats	Sugars

Record and check a day's food habits. Use with activity on front page.

Issued in furtherance of Cooperative Extension Work Acts of May 8 and June 30, 1914 in cooperation with the United States Department of Agriculture. Carl N. Scheneman, Vice President for Extension, Cooperative Extension Service, University of Missouri and Lincoln University, Columbia, Missouri 65201.

The University of Missouri is an equal employment and educational opportunity institution.