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SNACK TIME FOR KIDS

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For children, eating between meals or snacking is as commonplace as bedtime. It is estimated that children now eat something 10-12 different times each day. Snacking appears to have increased in the last decade. One reason for this is that for mothers with young children the percent of those with jobs outside of the home has risen from around 25-30 percent in 1970 to approximately 50 percent in 1980. This leaves less time to prepare regular meals and to supervise the preparation of snacks. Ready-to-eat or heat-and-serve foods, as well as meals and snacks outside of the home, are far more common today.

According to one study of 657 children who were 5-12 years old (see References, Morgan), the average snack provided the following percentages of the average total daily intake: 20 percent of calories, 12 percent of protein, 18 percent of fat, 24 percent of carbohydrate and 32 percent of total sugar. Snacks contributed to more than 10 percent of the Recommended Dietary Allowance for total vitamin A, vitamin C, thiamin, riboflavin, niacin, vitamin B6, vitamin B12, iron, calcium, phosphorus, magnesium and zinc. The average snack also accounted for 13 percent of the average daily intake of sodium and cholesterol for these children.

So snacks are a fact of life for our children. Are they good or bad, or does it matter? It does matter. It matters nutritionally and economically. With the increasing cost of food, it becomes more important to get the best total nutrition out of our food dollar.

How do snacks fit in?

Children have high energy needs because their bodies grow rapidly. In addition, the activity level of many children is high. Eating regular meals at breakfast, lunch and dinner is not always enough to provide needed calories between meals. Children may not be able to consume enough at one meal to last them until the next meal.

Besides extra calories, snacks can also provide children with other nutrients that may not be completely furnished in regular meals. Results from nutrition surveys indicate that children in the United States may get less than an adequate amount of iron, vitamin A and vitamin C. Proper snack selections can supply these needed nutrients.

Another important role for snacks is to develop good eating habits. Through parental examples, a child should be learning the proper food choices early in life, preferably by the age of 5 or 6. There is also a social factor involved in snacking which should not be overlooked. Food satisfies more than just physiological needs. Social interactions of children may be influenced by a planned or an unplanned snack.

Does “junk” food exist?

Individual foods provide nutrients primarily for three body functions: providing energy from calories, building and maintaining tissues, and regulating body processes. All foods accomplish at least one of these functions. For this reason, it is unwise to label a particular food or group of foods as “junk.” A total diet might be considered “junk” if it does not have a variety of nutrients but contains excessive amounts of just a few. According to Dr. Helen Guthrie of Penn State University, a commonly held opinion is that a snack is “junk” if it: tastes good, is advertised to children, is sold at a fast-food restaurant or from a vending machine, is processed, or is popular with adolescents. That eliminates most snacks.

An example can illustrate this point. A child has been active all day and has met most nutrient requirements but still could use 100-200 calories. Is a candy bar “junk” food if it provides these calories? Another example, a child really has not obtained the calcium and iron he or she needs but has met most other nutrient needs. Is an orange or
carrot considered “junk” food because it provides little calcium or iron?

The best advice is to fit the snack into the overall diet and guide your choices that way. Since food also has social and psychological influences, it may not be wise to withdraw a snack based solely on opinions about what constitutes “junk.”

Cavity conscious

As any parent knows, care of a child’s teeth is repaid medically and socially. Those teeth can have as large a place in the family budget as furniture, food or clothing! Tooth decay in both “baby” and permanent teeth is preventable by proper dental hygiene. Also, a wise choice of snack foods can play a major role in maintaining healthy teeth.

The two main cavity-causing factors are the amount of sugar in the snack and the length of time the food stays in contact with the teeth. Sucrose is the strongest cavity-forming sugar. Bacteria which cause cavities utilize this sugar best. Also remember that if a food is “sticky,” it will stay on the teeth longer. Liquids tend to pass quickly over the teeth. So a drink with a lot of sugar may be less of a problem to the teeth than a sticky piece of food with less sugar. An exception to this can be jelly or jam. These foods are so high in sugar that bacteria do not grow as well in them. Here the sugar acts like a preservative.

Cavity-causing bacteria do not use fats and proteins for fermentation and growth. Consequently, snacks which have more of these nutrients, in comparison to sugar, are less likely to produce cavities.

Remember that a snack could be both nutritious and a source of cavity-causing substances. So it is not wise to eliminate all snacks that have sugar. The goal should be to control the number of snacks that are “sticky” and high in sugar. Training children to brush their teeth or at least rinse their mouth with water after a snack can greatly reduce the chance of cavities even when a snack does contain sugar.

Some foods can be a problem when eaten alone but would be fine when combined with other foods at regular meals. Dried fruits are a good example. At a regular meal, there would be a greater chance of the food being removed from the teeth by more liquids, increased salivation and brushing after the meal. Table 1 gives some foods which would be better served as a snack or served with a meal.

<table>
<thead>
<tr>
<th>Snacks</th>
<th>At Meals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits</td>
<td>fresh fruits, unsweetened juices, dried fruits</td>
</tr>
<tr>
<td>Vegetables</td>
<td>raw vegetables, plain yogurt, milk, ice cream</td>
</tr>
<tr>
<td>Milk Products</td>
<td>raw or cooked milk, sweetened yogurts, milk shakes, cereals, crackers, pretzels</td>
</tr>
<tr>
<td>Grains</td>
<td>plain popcorn</td>
</tr>
<tr>
<td>Protein Foods</td>
<td>nuts, eggs, meats</td>
</tr>
<tr>
<td>Others</td>
<td>sugar-free gums and candies, soft drinks, peanut butter pastries, desserts</td>
</tr>
</tbody>
</table>

Tension—the salt habit

Salt is another health concern. Evidence shows that excessive use of sodium may be a factor in the development of hypertension. If children are continually offered snacks which are salted, then a habit may be formed which will continue into their adult life. Parents can set a good example by choosing snack foods which have not been pre-salted or by consuming smaller amounts of salted foods for a snack.

Since salt does add an enjoyable flavor to snacks, it need not be eliminated. However, limiting the use of salt may have benefits later on in a child’s life.

Calories—necessary but not too many

Overweight children have a greater tendency to become overweight adults. Snacks can add too many calories to a child’s daily intake. This, along with a lack of exercise, can be an important factor in a child becoming obese. Snacks which are “mini-meals” can quickly lead children toward obesity.

This does not mean that all snacks should be low in calories. Growing, active children can use snacks to give them the calories they require. A child may not be able to consume enough calories at a meal to satisfy his or her needs until the next meal. Therefore, to reach a balance, a snack should be enjoyable and provide several different nutrients (vitamins, minerals, protein, calories). However, it should not consistently contain too much of any one nutrient, especially calories.

For further information on snacks and tooth decay, send for Snack Facts, a brochure from the National Institute of Dental Research. The address is given at the end of this publication.
Moms & Dads—are you good snacking models?
While it may not be as obvious as the example set at mealtime, the example a parent sets when eating a snack is just as important. Children do model themselves after their parents. Parents can create a situation which increases the likelihood of developing good snacking habits. If the kitchen has a variety of appropriate foods which can be obtained quickly—finger foods, fruits, vegetables, juices—the child will become accustomed to having those foods for snacks. Parents can also encourage friends, relatives, and people in schools, places of worship and recreation groups to provide snacks which are consistent with good nutrition and good dental health. All of these actions increase the likelihood that your child will be eating snacks which help to satisfy his or her nutrient needs.

Snacking suggestions
Some of the better snack choices can also be the least expensive to buy. However, preparation time may be longer, and acceptability by children may be lower. You need to find a balance between cost, time and acceptability. This balance will differ from family to family. Table 2 lists some typical snacks with serving size and cost per serving (as of January, 1983). If snacks are included as part of the overall food budget, as well as being considered part of the daily food intake, then they no longer should be something to worry about.

Here are some specific suggestions for providing snacks. You could postpone part of a meal—a salad, beverage or some dessert—to be used as a snack later. Try adjusting the amount of the snack by offering 1 or 2 pieces of food instead of 3 or 4. When picking snacks, choose foods which supply nutrients that have been found to be low for some children. These nutrients would include iron, vitamin A and possibly vitamin C. Choose foods which have a variety of nutrients besides calories. The following list gives some examples.

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Foods with Many Nutrients Besides Calories
- enriched or whole grain breads
- crackers, nuts, seeds
- fresh fruits
- some fruit juices
- raw vegetables
- meat, fish, poultry
- milk, cheese, ice cream
- ice milk, eggs

Foods with Few Nutrients Besides Calories
- soft drinks
- fruit-flavored drinks
- sweet rolls, doughnuts
- cake, pies, pastry
- candy
- unenriched crackers
- pretzels

Tips for Snack Appeal
- The food should look and taste good.
- The colors should naturally be associated with the food.
- Snacks should vary over a one or two week period.

Table 2. Snack Price Comparisons

<table>
<thead>
<tr>
<th>Snack</th>
<th>Serving Size</th>
<th>Cost per Serving</th>
<th>Serving Size</th>
<th>Cost per Serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>celery sticks</td>
<td>2 4/8 stalks</td>
<td>$.05</td>
<td>snack pie</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>carrot strips</td>
<td>8 strips</td>
<td>.02</td>
<td>dry cereal</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>cherry tomatoes</td>
<td>6 small</td>
<td>.30</td>
<td>doughnut</td>
<td>1</td>
</tr>
<tr>
<td>orange</td>
<td>1 medium</td>
<td>.15</td>
<td>cupcake</td>
<td>1</td>
</tr>
<tr>
<td>banana</td>
<td>1 medium</td>
<td>.15</td>
<td>bread (white)</td>
<td>1 slice</td>
</tr>
<tr>
<td>canned peaches</td>
<td>1/2 cup</td>
<td>.17</td>
<td>peanut butter</td>
<td>2 tbsp.</td>
</tr>
<tr>
<td>frozen orange juice</td>
<td>1/2 cup</td>
<td>.16</td>
<td>gelatin</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>powdered orange drink</td>
<td>8 oz.</td>
<td>.10</td>
<td>milk or whole</td>
<td>.6 oz.</td>
</tr>
<tr>
<td>soft drink (individual can)</td>
<td>12 oz.</td>
<td>.42</td>
<td>milk</td>
<td>8 oz.</td>
</tr>
<tr>
<td>soft drink (can)</td>
<td>8 oz.</td>
<td>.23</td>
<td>cottage cheese</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>popcorn</td>
<td>2 cups</td>
<td>.03</td>
<td>yogurt (fruit)</td>
<td>1 cup</td>
</tr>
<tr>
<td>peanuts</td>
<td>1/4 cup</td>
<td>.22</td>
<td>egg</td>
<td>1</td>
</tr>
<tr>
<td>raisins</td>
<td>1/4 cup</td>
<td>.12</td>
<td>milkshake</td>
<td>8 oz.</td>
</tr>
<tr>
<td>potato chips</td>
<td>1 oz.</td>
<td>.27</td>
<td>milk chocolate</td>
<td>candy bar</td>
</tr>
<tr>
<td>potato chips (pound bag)</td>
<td>1 oz.</td>
<td>.14</td>
<td>pizza</td>
<td>1/6 pizza</td>
</tr>
<tr>
<td>graham crackers</td>
<td>4 squares</td>
<td>.16</td>
<td>fruit-flavored</td>
<td>popscicle</td>
</tr>
<tr>
<td>cookies</td>
<td>3 squares</td>
<td>.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A fun way to keep track of the cost of your child's snacks is to keep a notebook in the kitchen and record the name of each snack, the cost of the ingredients, and the number of servings the ingredient will provide. You can then add up the total cost of snacks over a period of time to see how much money is being spent on snacks.
Treat time

The snacks listed previously should provide plenty of variety. The following can be used occasionally as an extra treat.

Orange Delight
1/2 of a 6 oz. can of concentrated orange juice (1/3 cup)
1/2 cup skim milk
1/2 cup water
2 Tbsp. sugar or honey
1/2 Tbsp. vanilla
5-6 ice cubes
Mix in a blender until frothy (about 30 seconds).

Finger Fruits
Pineapple chunks—dip into sour cream or apple or pear wedges cheese spread
—dip into citrus juice and top with a sharp cheese spread
—dunk in cream cheese whipped with orange juice until fluffy
Banana chunks—dip into citrus juice and roll in chopped nuts

Honey Milk Balls
1/4 cup honey
1/4 cup peanut butter
1/2 cup non-fat dry milk
1/2 cup crushed cereal flakes
Mix honey and peanut butter. Gradually add milk, mixing well. With greased hands, form into balls. Roll in crushed cereal flakes. Chill until firm. (Makes about 30 small balls.)

Interested in learning more?

Extension Homemaker Clubs study topics including nutrition, management, housing, textiles and human development at monthly meetings. Local members receive training and present educational programs. Over 600,000 members nationwide benefit from this association with the Land Grant College in their state. For more information, contact your county Extension office.

References

Your Cooperative Extension Home Economist, a dietitian or a pediatrician can answer any questions you might have concerning snacks for your child. In addition, the following resources might be of help:


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