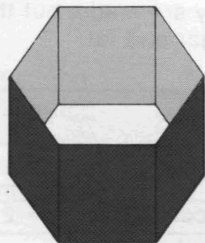


Texas Agricultural Extension Service



Nutrition and Your Health

Dietary Guidelines for Americans Avoid Too Much Sugar

It is important to consider all seven Dietary Guidelines in building a healthful diet:

- Eat a Variety of Foods
- Maintain Desirable Weight
- Avoid Too Much Fat, Saturated Fat and Cholesterol
- Eat Foods with Adequate Starch and Fiber
- Avoid Too Much Sugar
- Avoid Too Much Sodium
- If you Drink Alcoholic Beverages, Do So in Moderation

Sugar and Your Teeth

Harmful

- Too much sugar
- Frequent snacks
- "Sticky" sweets



Helpful

- Sugar at meals only
- Good dental care
- Fluoride

The Sugar/Tooth Decay Connection

The major problem related to eating too much sugar is tooth decay. Tooth decay, however, is more than a matter of HOW MUCH sugar you eat. Both the FORM in which you eat sugar and HOW OFTEN you eat it are important. Sticky or chewy sugary foods that stay on the teeth longer cause more problems than other sweets. Sugary foods eaten between meals are more likely to cause tooth decay than those eaten only at mealtime. Maintaining healthy teeth is more than avoiding too much sugar. Use of fluoridated water and careful dental hygiene are also important.

Sugar: Fact or Fiction?

To get an idea of what you already know about sugar and your diet, take this quiz. After you've read this bulletin, try the quiz again to see how much you have learned. (Answers are on page 3).

True	False	
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- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. A major problem with diets high in sugar is that the foods high in sugar may replace more nutritious ones. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Snacking on dried fruit is less harmful to the teeth than drinking a fruit drink. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. The average 12-ounce cola drink contains about 9 teaspoons of sugar. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. The total amount of added sugars Americans eat has gone down in recent years. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. People who eat a lot of sugar are almost always obese. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. For nearly all foods, manufacturers must list any added sugars on the ingredient label. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Many foods can be made with less sugar without harming their taste or quality. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Honey and brown sugar are much more nutritious than table sugar. |



1 teaspoon SUGAR = 15 Calories

Sugar: The Basic Facts

What Is Sugar?

To most people, "sugar" means white table sugar. In the Dietary Guidelines, "sugar" means all forms of caloric sweeteners, including white sugar, brown sugar, raw sugar, corn syrup, honey, and molasses.

Table sugar, or sucrose, is the most commonly used sugar. Corn-based sweeteners are also used in large amounts in food processing.

Sugars are simple carbohydrates. Another type of carbohydrate, complex carbohydrate, includes starch and dietary fiber.

Where's the Sugar?

What Comes Naturally

Sugars are found naturally in some foods. Most fruits and some vegetables contain sugars such as glucose, fructose, and sucrose. Another sugar, lactose, is found in milk and milk products. Legumes and cereals contain small amounts of maltose. Besides sugars, these foods provide needed vitamins and minerals.

What's Added

Sugars are added to foods during processing, preparation in the home, or at the table. These sweeteners, such as sucrose and corn syrups, are used to flavor and preserve foods. Soft drinks and sweetened beverages, sugars and sweets, and bakery products provide most of the sugar in the American diet.

How Much Sugar Is in the Foods You Eat?

The tradeoffs* below are equations that show approximately how much sugar is added to some popular foods. Foods on each side of the equation provide about the same amount of nutrients. For example, milk- and grain-based desserts provide the same nutrients as the enriched flour or milk from which they are made, but they also provide much more sugar and fat.

Sugary Foods

1 tsp. jam or jelly	= 1 tsp. sugar, syrup, or molasses
1-ounce chocolate bar	= 2 tsp. fat + 5 tsp. sugar
12 ounces fruit drink, ade, or punch	= 12 tsp. sugar
12 ounces cola	= 9 tsp. sugar

Effects of Food Form and Preparation

1/2 cup frozen sweetened fruit	= 1/2 cup unsweetened fruit + 6 tsp. sugar
1/2 cup fruit, canned in heavy syrup	= 1/2 cup unsweetened fruit + 4 tsp. sugar
1/2 cup fruit, canned in light syrup	= 1/2 cup unsweetened fruit + 2 tsp. sugar
8 ounces lowfat vanilla yogurt	= 8 ounces lowfat milk + 4 tsp. sugar
8 ounces lowfat fruit yogurt	= 8 ounces lowfat milk + 7 tsp. sugar

Desserts

1/2 cup ice cream	= 1/3 cup skim milk + 2 tsp. fat + 3 tsp. sugar
1/2 cup ice milk	= 1/3 cup skim milk + 1 tsp. fat + 3 tsp. sugar
1/2 cup lowfat frozen yogurt	= 1/3 cup skim milk + 4 tsp. sugar
1/16 of white layer cake with chocolate frosting	= 1 slice bread + 3 tsp. fat + 6 tsp. sugar
2 oatmeal cookies	= 1 slice bread + 1 tsp. fat + 1 tsp. sugar
1/6 of 9-inch apple pie	= 2 slices bread + 1/3 medium apple + 3 tsp. fat + 6 tsp. sugar

*Tradeoffs are approximations based on the calories and nutrients in these types of foods. Individual foods vary.

Sugar and Your Health

Sugar supplies energy (calories) but few nutrients. If eating sugar keeps you from eating nutritious foods, you may not get enough vitamins and minerals. Amounts of sugar should be limited by everyone, but especially by individuals with low calorie needs.

The major problem that results from eating too much sugar is tooth decay. Sugar has been blamed for obesity, diabetes mellitus, heart disease, and hyperactive behavior in young children. However,

scientific studies have not shown a *direct* link between sugar and any of these conditions, except tooth decay.

Obesity results from eating too many calories, regardless of their source. Cutting back on added sugars is a good way to reduce calories—without reducing nutrients. Too much sugar has not been shown to cause diabetes or heart disease, but obesity *is* associated with an increased risk for both of these disorders.

Getting to Know Your Sugars

Hidden Sugars in Foods

	Teaspoons of Sugar
Cola drink, 12 ounces	9
Strawberry jam, 1 tablespoon	4
Milk chocolate bar, 1½ ounce	2½
Chewing gum, 1 stick	½
Fudge, 1 ounce square	4½
A gum drop	2
A marshmallow	1½
A frosted cupcake	6
A brownie	3
A Fig Newton	5
A chocolate éclair	7
A glazed doughnut	6
A sugar cookie	1½
An ice cream cone	5½
Sherbet, ½ cup	9
Raisins, ½ cup	4
Canned peaches, 2 halves	3½
Fruit juice, ½ cup	2
Jello, ½ cup	4½
Apple pie, 1 slice	7
Blueberry pie, 1 slice	10
Chocolate pudding, ½ cup	4

Names of Sugars Used in Foods

Sugar	Lactose
Sucrose	Mannitol
Glucose	Honey
Dextrose	Corn syrup
Sorbitol	High-fructose
Fructose	corn syrup
Maltose	Molasses
	Maple syrup

Using the Ingredient Label

Read the ingredient label to get a rough idea of the sugars in a product. (The names of some sugars that manufacturers add to foods are listed above.) Ingredients are listed on the label in order by weight—from greatest to least. So, if one of these sugars is listed as one of the first three ingredients, or if several sugars are listed on the label, the product is probably high in sugar.

INGREDIENTS: Bleached flour, sugar, partially hydrogenated vegetable shortening, dextrose, water, corn syrup, carob, whey blend, cornstarch, salt, sodium bicarbonate, lecithin, artificial flavorings, and artificial colors.

What About Artificial Sweeteners?

Saccharin and aspartame are artificial sweeteners commonly used in diet beverages, tabletop sweeteners, and other products to provide sweetness without unwanted calories. Aspartame (marketed commercially as "NutraSweet®") is also used in gelatins, puddings, dessert toppings, and even cereals. Since saccharin does not have the same baking characteristics as sugar, special recipes must be used for preparing baked products using this sweetener. Aspartame decomposes with heat and is not appropriate for baking purposes.

It is not necessary to use artificial sweeteners to avoid too much sugar in your diet.

The safety of artificial sweeteners as food additives is continuously under review by the Food and Drug Administration (FDA). For current information about specific food additives, contact the FDA Consumer Affairs Office in your region.

This product contains three different added sugars: sugar, dextrose, and corn syrup. Notice that these sugars are the second, fourth, and sixth ingredients on the label. This indicates that this product is probably high in sugar.

Answers to Quiz:

- | | |
|----------|----------|
| 1. True | 5. False |
| 2. False | 6. True |
| 3. True | 7. True |
| 4. False | 8. False |

Avoiding Too Much Sugar—Some Suggestions

At the Supermarket—

- Read ingredient labels. Identify all the added sugars in a product. Select items lower in total sugar when possible.
- Buy fresh fruits or fruits packed in water, juice, or light syrup rather than those in heavy syrup.
- Buy fewer foods that are high in sugar such as prepared baked goods, candies, sweet desserts, soft drinks, and fruit-flavored punches and ades.

In the Kitchen—

- Reduce the sugar in foods prepared at home. Try new recipes or adjust your own. Start by reducing the sugar gradually until you've decreased it by one-third or more.
- Experiment with spices such as cinnamon, cardamom, coriander, nutmeg, ginger, and mace to enhance the flavor of foods.

What's to Drink?

Looking for an alternative to soft drinks and fruit drinks that contain so much sugar? Try one of these:

Fruit Juices—ready-to-drink from the can or bottle, or mixed from frozen concentrate. To get the most fruit juice with the least amount of added sugar, be sure the label says fruit *JUICE*, and not fruit *DRINK*.

Fruit Juice Mixes or Punches—pleasantly sweet with just a bit of a tang.

Fruit Juice Coolers—any combination of fruit juice and club soda. A pineapple-citrus juice makes a tangy combo.

Skim or Lowfat Milk—a nutritious thirst quencher.

Yogurt Fruit Shakes—a blender treat: 1/2 cup of plain lowfat yogurt, 1 serving of fruit, 1/2 cup of juice, and 4 ice cubes. Tasty fruit and juice combinations: banana and orange juice, pineapple chunks and apple juice, apple and grape juice.

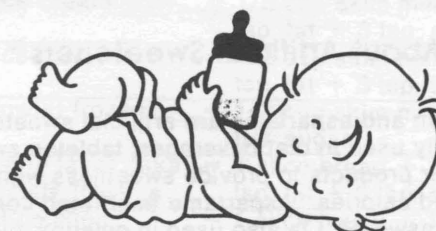
Club Soda or Mineral Water—refreshing served on ice with a twist of lemon or lime.

- Use home-prepared items (with less sugar) instead of commercially prepared ones that are higher in sugar, when possible.

At the Table—

- Use less of all sugars. This includes white and brown sugar, honey, molasses, and syrups.
- Choose fewer foods high in sugar such as prepared baked goods, candies, and sweet desserts.
- Reach for fresh fruit instead of a sweet for dessert or when you want a snack.
- Add less sugar to foods—coffee, tea, cereal, or fruit. Get used to using half as much; then see if you can cut back even more.
- Cut back on the number of soft drinks, punches, and ades you drink.

Preventing Baby-Bottle Tooth Decay



Do not put a baby or young child to bed with a bottle of milk, formula, juice, or other sweet liquid or use such a bottle as a pacifier during the day. During sleep this liquid stays in the mouth and gathers around the teeth. Exposure of the teeth to sugars in these liquids for extended periods of time, day or night, leads to a high risk of tooth decay.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

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