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How to Buy

Dairy Products

The many kinds of milk and dairy products on the market today give consumers a tempting variety of delicious foods from which to choose.



PREPARED BY
Agricultural
Marketing
Service

Home and
Garden Bulletin
Number 255

United States
Department of
Agriculture

Points to Consider

Wholesomeness...quality...nutritive value... convenience...and informative labeling are some of the points to consider when purchasing dairy products.

Wholesomeness

Before grading or inspection of a dairy product is provided, the processing plant must meet the U.S. Department of Agriculture's specifications for quality and sanitation. A USDA dairy inspector checks the plant, incoming raw products, and processing and packaging techniques.

Nutritive Value

Milk products provide varying amounts of protein, fat, saturated fat, cholesterol, carbohydrate, vitamins, and minerals. Of all milk products, milk, yogurt, and cheese are the best sources of calcium. Some milk products contain added sugars. Some are high in sodium or fat, especially saturated fat, while others are low. Although butter is made from cream, nutritionally it is a fat and is not in the milk group of the Food Guide Pyramid. Use the **Nutrition Facts** panel on each individual product label to learn about the nutrient content of that food and how it fits into an overall daily diet.

Choose a diet low in fat, saturated fat, and cholesterol to help reduce the risk of getting certain diseases and to help maintain a healthy weight. The Dietary Guidelines for Americans suggest choosing a diet containing 30 percent or less of calories from fat and less than 10 percent of calories from saturated fatty acids. Also, some health authorities suggest that dietary cholesterol be limited to an average of 300 milligrams or less per day.

The Food Guide Pyramid suggests 2 to 3 servings each day of food from the milk, yogurt, and cheese group. Count as a serving: 1 cup of milk or yogurt, 1 1/2 ounces of natural cheese, or 2 ounces of process cheese.

Tips: Skim milk and plain nonfat yogurt are lowest in fat, saturated fat, and cholesterol; contain no added sugars; and should be chosen often. "Part skim" or lowfat cheeses and lower fat milk desserts, such as lowfat ice cream or frozen yogurt, are available. When you choose a higher fat milk product, balance your fat intake by choosing other foods that are low in fat.

Fat Content of Milk Products

Selected products	Total fat (grams)	Saturated fatty acids (grams)	Cholesterol (milligrams)
1 cup milk,			
skim	trace	trace	4
1 percent	3	2	10
2 percent	5	3	18
whole	8	5	33
1 cup yogurt			
nonfat plain	trace	trace	4
lowfat plain	4	2	15
1/2 cup cottage cheese,			
lowfat, 1% fat creamed	1 5	1 3	5 16
1 oz. cheese,			
mozzarella, part skim milk	5	3	15
natural Cheddar	9	6	29
1/2 cup vanilla frozen dessert			
lowfat ice cream	3	2	9
ice cream	7	4	27
frozen yogurt	2	1	8

Marks of Quality

USDA has established U.S. grade standards to describe different grades of quality in butter; Cheddar, Colby, Monterey, and Swiss cheese; and instant nonfat dry milk. FDA has established the Grade A designation for fluid milk products, yogurt, and cottage cheese.

Manufacturers use the grade standards to identify levels of quality, to have a basis for establishing prices at wholesale, and to provide consumers with a choice of quality levels.

USDA also provides inspection and grading services which manufacturers, wholesalers, or other distributors may request. A fee is charged to cover the cost of the service. Only products that are officially graded may carry the USDA grade shield.

How USDA's Dairy Grading Program Works

The U.S. Grade AA or Grade A shield is most commonly found on butter and sometimes on Cheddar cheese.

U.S. Extra Grade is the grade name for instant nonfat dry milk of high quality. Processors who use USDA's grading and inspection service may use the official grade name or shield on the package.

The "Quality Approved" shield may be used on other dairy products (for example, cottage cheese) or other cheeses for which no official U.S. grade standards exist if the products have been inspected for quality under USDA's grading and inspection program.

Dairy Facts

- Milk available in stores today is usually pasteur-ized and homogenized. Very little raw milk is sold today.
- In pasteurizing, milk is heated briefly to kill pathogens and harmful bacteria. Then, it is rapidly chilled.
- Homogenized milk has been processed to reduce the size of the milkfat globules so the cream does not separate and the product stays uniform throughout.
- Depending on its milkfat content, fluid milk is labeled milk, lowfat milk, or skim milk (nonfat milk). Vitamin D may be added to any of these milks, and the milk is then so labeled. If added, the vitamin D content must be increased to at least 400

- International Units (I.U.) per quart.
- Lowfat and skim (nonfat) milk are fortified with vitamin A (at least 2,000 I.U. per quart), usually providing more vitamin A than whole milk. The protein and other vitamin and mineral content of milks with reduced milkfat are equivalent to that of whole milk.
- Federal, State, and local laws or regulations control the composition, processing, and handling of milk. Federal laws apply when packaged or bottled milk is shipped interstate. Raw milk is prohibited from being sold interstate.
- The Pasteurized Milk Ordinance of the Food and Drug Administration (FDA) requires that all packaged or bottled milk shipped interstate be pasteurized to protect consumers. Milk can be labeled "Grade A" if it meets FDA or State standards under the Pasteurized Milk Ordinance.
- The Grade A rating designates wholesomeness or safety rather than a level of quality. According to the standards recommended in the ordinance, Grade A pasteurized milk must come from healthy cows and be produced, pasteurized, and handled under strict sanitary controls which are enforced by State and local milk sanitation officials.
- The following storage times are guidelines for maintaining the quality of milk and cream in the refrigerator at home after purchase: Fresh milk -- 5 days; buttermilk -- 10-30 days; condensed or evaporated milk -- opened 4-5 days; half and half, light cream, and heavy cream -- 10 days; sour cream -- 2-4 weeks.

Dairy Dictionary

In the definitions that follow, the composition or milkfat content given for each product (except for butter) is required under FDA regulations. State laws or regulations may differ somewhat from FDA's. The milkfat content of butter is set by a Federal law. FDA has established a regulation that allows a product to deviate from the standard composition in order to qualify for a nutrient content claim. Products such as nonfat sour cream, light eggnog, reduced fat butter, and nonfat cottage cheese fall into this category.

Milk

- **Whole Milk** Whole milk is usually homogenized and fortified with vitamin D. For shipment in interstate commerce, it must contain a minimum of 3.25 percent milkfat and 8.25 percent milk solids not fat (MSNF). The milk must also meet minimum milkfat requirements set by the State or municipality where it is sold.
- **Lowfat Milk** Lowfat milk has between 0.5 and 2 percent milkfat, contains 8.25 percent MSNF, and is fortified with vitamin A. The addition of vitamin D is optional.

Tip on Lowfat Milk: Lowfat milk can be made at home by mixing half whole milk with half skim milk or reconstituted instant nonfat dry milk.

- **Skim milk** (nonfat milk) must have less than 0.5 percent milkfat, contain 8.25 percent MSNF, and must be fortified with vitamin A. The addition of vitamin D is optional.

Tip on Skim Milk: The flavor and food value of skim milk can be improved by adding a teaspoonful of instant nonfat dry milk to each glass.

- **Flavored Milks** Flavored milks are made by adding fruit, fruit juice, or other natural or artificial food flavorings such as strawberry, chocolate syrup, or cocoa to pasteurized milk.

Tips on Chocolate-Flavored Milk: Regular, lowfat, or skim chocolate-flavored milk can be heated for quick and easy hot chocolate. Use chocolate-flavored milk in cookie or cake recipes that call for both milk and chocolate or cocoa.

- **Buttermilk** All commercially sold buttermilk is cultured. This means that a safe lactic acid- producing bacterial culture is added to freshly pasteurized skim or lowfat milk to produce the buttermilk. It is much thicker than skim milk and is higher in sodium than other milk. Buttermilk is a good thirst quencher.

Tips on Buttermilk: Always keep cultured buttermilk chilled. If it is allowed to warm, it may separate. If it does separate, just stir it. Dried buttermilk, a byproduct of buttermaking, is used in pancake mixes and bakery products.

- **Dry Whole Milk** Dry whole milk is pasteurized whole milk with the water removed. It has limited retail distribution -- mainly for use in infant feeding and for people without access to fresh milk, such as campers. Dry whole milk is usually sold to chocolate and candy manufacturers.

Tips on Dry Whole Milk: An opened package should be tightly sealed and stored in a cool, dry place. Dry whole milk develops off-flavors if not used soon after opening.

- **Nonfat Dry Milk** Nonfat dry milk, made by removing nearly all the fat and water from pasteurized milk, contains about half the calories of whole milk. "Instant" nonfat dry milk is made of larger particles that dissolve more easily in water. Some instant nonfat dry milk contains added vitamins A and D. To earn the "U.S. Extra Grade" shield, instant nonfat dry milk must have a sweet, pleasing flavor and a natural color. It must also dissolve immediately when mixed with water.

Tips on Nonfat Dry Milk: Nonfat dry milk needs no refrigeration and can be stored for several months in a cool, dry place. An opened package should be tightly resealed. After nonfat dry milk is reconstituted, refrigerate and handle as fresh milk.

Use nonfat dry milk both as a beverage and in cooking. When used as a beverage, reconstitute it several hours before serving to allow time to chill.

- **Evaporated Milk** Evaporated milk is prepared by heating homogenized whole milk under a vacuum to remove half its water, sealing it in cans, and thermally processing it. When evaporated milk is mixed with an equal amount of water, its nutritive value is about the same as whole milk. Evaporated skim milk is also available.

Tips on Evaporated Milk: Always refrigerate after opening. Used full strength, evaporated milk adds extra nutritive value to the diet. Evaporated milk, with an equal amount of water added, may replace fresh milk in recipes. It can also be used in coffee or on hot or cold cereal.

- **Sweetened Condensed Milk** This concentrated canned milk is prepared by removing about half the water from whole milk. Often used in candy and dessert recipes, sweetened condensed milk has at least 40 percent sugar by weight.

Cream

FDA sets standards of composition for milk and different types of cream. These standards give minimum milkfat requirements, which must be met if the product is to be shipped in interstate commerce.

- **Light Cream** Light cream, also called coffee cream or table cream, must have at least 18 percent milkfat, but less than 30 percent.

Tips on Light Cream: For maximum shelf life, do not return unused cream from a pitcher to its original container. Store it separately in the refrigerator. Try to pour only as much from the original container as is needed at one time.

- **Half-and-Half** Half-and-half is made by homogenizing a mixture of milk and cream. It must contain at least 10.5 percent milkfat, but not more than 18 percent.

Tip on Half-and-Half: Half-and-half can be mixed at home using equal parts homogenized whole milk and light cream.

- **Light Whipping Cream** Light whipping cream must have at least 30 percent milkfat, but less than 36 percent.

Tip on Light Whipping Cream: To whip this kind of cream, both the bowl and cream should be well chilled.

- **Heavy Cream** Heavy cream must have at least 36 percent milkfat.

Tips on Heavy Cream: Although heavy cream is more easily whipped than light whipping cream, it will whip still more easily if the cream and the bowl are well chilled. Don't over- whip heavy cream; it may become grainy.

- **Sour Cream** Sour cream is made by adding a special bacterial culture to light cream. The bacteria produce lactic acid, which sours the cream. Sometimes manufacturers use food-grade acid instead of bacteria to make sour cream. The product must be labeled "acidified sour cream" if this process is used. Acidified sour cream has the same wholesomeness as sour cream; the only difference is in the manufacturing process. Both sour cream and acidified sour cream are smooth and thick, and meet the milkfat requirements for light cream.
- **Sour Half-and-Half** A bacterial culture or a food-grade acid is used to make sour half-and-half. FDA standards of identity require the product to be labeled acidified sour half-and-half if food-grade acid is used.

Tip on Sour Half-and-Half: Use sour half-and-half instead of sour cream for less fat.

Butter

Butter is made by churning pasteurized cream. Federal law requires that it contain at least 80 percent milkfat. Salt and coloring may be added. Nutritionally, butter is a fat; one tablespoon contains 12 grams total fat, 7 grams saturated fatty acids, 31 milligrams cholesterol, and 100 calories.

Whipped butter is regular butter whipped for easier spreading. Whipping increases the amount of air in butter and increases the volume of butter per pound.

The USDA grade shield on butter packages means that butter has been tested and graded by experienced government graders. In addition to checking the quality of the butter, the graders also test its keeping ability.

- **U.S. Grade AA Butter**
 - has a delicate sweet flavor, with a fine, highly pleasing aroma
 - is made from fresh sweet cream
 - has a smooth, creamy texture with good spreadability
- **U.S. Grade A Butter**
 - has a pleasing flavor
 - is made from fresh cream
 - is fairly smooth in texture

Tip on Butter: Unsalted butter may be labeled "sweet" or "unsalted" butter. Some people prefer its flavor.

When using whipped butter in place of regular butter in recipes, use 1/3 to 1/2 more than the recipe calls for if the measurement is by volume (1 cup, 1/2 cup, etc.). If the measurement is by weight (1/4 pound, 1/2 pound, etc.), use the amount called for.

Store butter in its original wrapper or container so it won't pick up flavors from other foods.

Butter thinly spread in sandwiches adds moisture and flavor, and keeps the filling from soaking the bread.

Cheese

- **Natural Cheese** There are hundreds of varieties of natural cheese. Cheese is generally made from whole milk, although skim milk, cream, and goat's milk are also used. Cheesemaking consists of separating most of the milk solids from the milk by coagulating with safe bacterial cultures and rennet or a microbial enzyme. The curd is then separated from the whey by heating, stirring, and pressing.

After the cheese has been formed into its characteristic shape, it is given a wax or other protective coating and allowed to age for varying lengths of time, depending on the kind of cheese being made. When the cheese has reached its proper aging or curing state, it is cut into sizes suitable for consumer use.

A 1 1/2-ounce serving of natural cheese supplies the same amount of calcium as 1 cup of milk or yogurt, as well as 12 to 14 grams total fat, 9 grams saturated fatty acids, 4 milligrams cholesterol, and 173 calories. For sodium, while 1 cup of milk contains 120 milligrams, 1 1/2 ounces of natural cheese could contain from 110 to 450 milligrams, while 2 ounces of process cheese could contain 800 milligrams.

The U.S. Grade AA shield may be found on Cheddar cheese in some stores. Other cheeses may receive industry grades, but these do not appear on consumer packages.

- **U.S. Grade AA cheese:**
 - has fine, highly pleasing Cheddar flavor;
 - smooth, compact texture;
 - uniform color and attractive appearance
- **Process Cheese** Process cheese is a blend of cheeses which have been shredded, mixed, heated, and then molded. No further ripening occurs. Process cheese may contain pimentos, fruits, vegetables, or meats.

If the label says "process cheese food," other ingredients such as nonfat dry milk or whey solids and water have been added, resulting in a lower milkfat content and more moisture than process cheese.

Process cheese spread has an even higher moisture content and lower milkfat content than process cheese and cheese food. As a result, it's more spreadable.

Process cheese products usually come packed in slices, loaves, or jars.

- **Cottage Cheese** Cottage cheese is a soft, uncured cheese prepared by mixing dry curd cottage cheese with a creaming mixture. "Dry curd cottage cheese" has a milkfat content of less than 0.5 percent, while "cottage cheese" must have a milkfat content of at least 4 percent.

Lowfat and nonfat varieties of cottage cheese are defined in FDA standards of identity. Lowfat cottage cheese must have a milkfat content between 0.5 percent and 2 percent. Nonfat cottage cheese contains less than 0.5 percent total fat.

Cottage cheese may bear the USDA "Quality Approved" shield if it is of good quality and made under USDA supervision.

Tip on Cottage Cheese: All cottage cheeses should be used within 10 to 30 days.

Yogurt

Milk is cultured with a special bacteria to make custard-like yogurt. Yogurt is usually made from homogenized, pasteurized lowfat milk, and may be enriched with nonfat dry milk solids. Because it is slightly more concentrated, it is higher in several nutrients (such as calcium) than an equal amount of milk.

Tips on Yogurt: If separation occurs, just stir the liquid back into the yogurt.

Sweetened and fruit-flavored yogurt is available in sundae-style with the fruit at the bottom, and Swiss-style with the fruit distributed throughout the yogurt.

Frozen Desserts

- **Ice Cream** Ice cream is made from cream, milk, sweeteners, flavorings, stabilizers, and emulsifiers. To be shipped in interstate commerce, it must contain at least 10 percent milkfat.
- **Frozen Custard** (French Ice Cream) Frozen custard, also called French ice cream or New York ice cream, has egg yolks added.

- **Lowfat Ice Cream** Lowfat ice cream, or ice milk, is made from milk, stabilizers, sweeteners, and flavorings, and contains not more than 3 grams of fat per 4-ounce serving. Ice creams advertised as "reduced fat" or "light" must have a lower fat content than "regular" ice cream, but may not meet the standard for "lowfat." Soft-serve frozen desserts are similar to lowfat ice cream, but are specially processed.
- **Sherbet** Sherbet, made from milk, fruit or fruit juice, stabilizers, and sweeteners, has about twice as much sweetener as ice cream. It must have 1 to 2 percent milkfat.
- **Frozen Yogurt** Frozen yogurts, containing sweeteners and flavorings, are available in regular and lowfat varieties.

Tips on Frozen Dessert: Keep frozen desserts in tightly closed cartons. If you store them in the freezer of your refrigerator, try to use them within a week. Frozen desserts stored in a deep freezer at temperatures below 0 °F. will keep about a month. Hard freezing prevents formation of ice crystals.

Frozen desserts are easier to serve if placed in the refrigerator before serving -- about 10 minutes for a pint and 20 minutes for a half gallon.

Milk Products and Calcium

The following milk products provide the same amount of calcium as 1 cup of skim milk, but many also contain more fat and calories:

1 cup 2% fat milk
1 cup whole milk
1 cup 2% fat chocolate milk
8 ounces plain nonfat yogurt
8 ounces plain lowfat yogurt
8 ounces lowfat vanilla yogurt
8 ounces lowfat fruited yogurt
1 1/2 ounces natural cheese
2 ounces process American cheese

Note: Cottage cheese has less calcium than most other cheeses. One cup of cottage cheese contains only as much calcium as 1/2 cup of milk.

For more information about nutrition, write:
U.S. Department of Agriculture,
Center for Nutrition Policy and Promotion
1120 20th Street NW, Suite 200 North

Washington, DC 20036



Use the Food Guide Pyramid to help you eat better every day...the Dietary Guidelines way. Start with plenty of Breads, Cereals, Rice, and Pasta; Vegetables; and Fruits. Add two to three servings from the Milk group and two to three servings from the Meat group. Each of these food groups provides some, but not all, of the nutrients you need. No one food group is more important than another - for good health you need them all. Go easy on the fats, oils, and sweets, the foods in the small tip of the Pyramid.

HOW TO BUY DAIRY PRODUCTS

- Know Product Differences
 - Fluid milk:** whole, lowfat, skim.
 - Dry milk:** whole, nonfat.
 - Butter:** salted or sweet, regular or whipped.
 - Cheese:** natural, process.
- Look for the USDA Grade

Choose nonfat or lowfat products for diets low in fat

U.S. Grade AA & U.S. Grade A

Found on butter, Cheddar cheese.

Means good flavor, texture; high quality.



U.S. Extra Grade

Found on instant nonfat dry milk.

Means pleasing flavor.

This pamphlet supersedes:
HOW TO BUY DAIRY PRODUCTS
Home & Garden Bulletin 201
Agricultural Marketing Service
Revised July 1979
Issue Date: February 1995