



dairy PRODUCTS

How much do you know about the milk you may drink every day? Milk has many nutrients. Its composition, or the elements that are part of milk, can vary depending on the breed of cow used to produce it. Before it is processed at a processing plant and packaged for you to buy at a store, it has the following elements.

- ◆ About 88 percent water
- ◆ 5 percent **lactose**, which is a form of sugar found in milk
- ◆ About 4 percent fat
- ◆ About 3 percent protein
- ◆ About 1 percent minerals, including calcium



Canada's Food Guide



Canada's Food Guide provides recommendations about foods that make a healthy diet. How can you match these recommendations to the food choices shown in the photo?

- ◆ Have plenty of vegetables and fruits
- ◆ Eat protein rich foods
- ◆ Choose whole grain foods
- ◆ Make water your drink of choice

Find more information in the Government of Canada. Canada's food guide snapshot. <https://food-guide.canada.ca/en/food-guide-snapshot/>



Which of the four food guide plate recommendations would milk and other dairy products support? How do you know this?

Fifteen essential nutrients are found in milk. These nutrients include:

- ◆ Protein
- ◆ Vitamin B6
- ◆ Calcium
- ◆ Niacin
- ◆ Potassium
- ◆ Phosphorus
- ◆ Pantothenic Acid (Vitamin B5)
- ◆ Magnesium
- ◆ Riboflavin
- ◆ Selenium
- ◆ Vitamin A
- ◆ Thiamin
- ◆ Vitamin D
- ◆ Zinc
- ◆ Vitamin B12



What's in Yogurt



The sugar, or carbohydrate, in dairy products is called **lactose**. Lactose goes through **fermentation**, the process that converts sugar into an acid.

When it ferments, it makes an acid called **lactic acid**. This acid combines with the protein in milk to give yogurt its tangy taste and thicker texture.



Made from Milk



There are many dairy products that are made from milk. Products like cheese, yogurt, kefir, paneer, ice cream, and butter all start with milk. Cheese is made from the protein in milk. When **rennet**, an enzyme found in animal's stomachs, or a lactic acid is added to milk, it changes. The milk **curdles**, or separates the solids from the liquid.

These **curds** are solids. They are then used to make cheese. The liquid that is left over is called **whey**. The whey is drained from the curds. The curds are then pressed into blocks or rounds.



Do you think cheese making involves a chemical reaction? Why do you think this?

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Make It Ice Cream



Ice cream is made from cream. When the cream is combined with other ingredients, including fruit flavours and sugar, and then frozen, it makes ice cream. Do you think ice cream is a liquid or a solid?



What are two examples of mixtures found in foods made from milk?

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