

Yogurt



Dairy MAX

YOUR Local Dairy Council



The aroma, body and flavor of yogurt vary depending on the type of culture and milk, amount of milk fat and nonfat milk solids, fermentation process and temperature used - all providing a unique and diverse nutritional package.

What Is

Yogurt?

Yogurt is a mixture of milk and cream fermented by a culture of lactic acid-producing bacteria, *Lactobacillus bulgaricus* and *Streptococcus thermophilus*.

Additional optional ingredients:

- Other bacteria (such as acidophilus)
- Other strains of *Lactobacillus bulgaricus* and *Streptococcus thermophilus*
- Sweeteners (sugar, honey, etc.)
- Flavorings (vanilla, coffee, etc.)
- Fruits or fruit puree
- Stabilizers, such as gelatin



A Bite of History

Yogurt has been a food staple for thousands of years. In fact, historians believe around 4,500 years. Commonly found in the Middle East, this dairy product is thought to have been discovered by accident. A warm climate (ideal for the growth of bacteria) and the delicacy of milk would have naturally promoted the breakdown of lactose into lactic acid and the fermentation of milk into yogurt.

1900

Ilya Metchnikoff discovers lactic acid-producing bacteria used to culture milk after recognizing an association between life expectancy and a Bulgarian diet rich in cultured dairy products.

1930

Yogurt available for purchase in the United States.

1960

Real fruits and preserves added to commercial yogurt as result of consumer demand for more natural foods.

2010

Greek yogurt sales spike.

Nutrition Information

The main benefit of yogurt is that, like other dairy foods, it provides about 30% of the recommended daily value of calcium as well as a good source of protein, vitamins and other minerals. Numerous health benefits beyond its nutrition value have been associated with consuming yogurt. Yogurt's active cultures may aid in digestion, ease diarrhea, boost immunity, fight infection and protect against diseases. The nutritional and caloric contents of yogurt are similar to those of the fluid milks from which they are made.

By definition, all yogurt must contain at least 8.25% milk-solids-non-fat.

YOGURT (MADE WITH)

Full-Fat Yogurt	>3.25% milk fat
Low-Fat Yogurt	>0.5% - <2% milk fat
Non-Fat Yogurt	<0.5% milk fat

Check the Nutrition Facts panel on product labels for the nutritional content of specific products.

Health Tip

When shopping for yogurt, look for low-fat or non-fat varieties, stick with plain yogurt and add flavor yourself with fresh fruit, fruit preserves or honey.



Fun Fact

People who are lactose intolerant can often enjoy yogurt. Most yogurts contain lower amounts of lactose than milk. As yogurt ferments, some of the lactose is converted into lactic acid. Additionally, cultures in yogurt may produce the enzyme lactase, which digests lactose naturally. Lactose-free yogurts are also available.

How Yogurt is Made

The aroma, flavor and texture of yogurt can vary depending on the type of milk and culture, the amount of milk fat/nonfat milk solids, fermentation process and temperature used.



Start with milk

Whole, reduced fat, low-fat or nonfat.



Homogenization

The milk (plus optional nonfat solids) is homogenized prior to “setting” to prevent separation of the fat. This helps to create a smooth finished product.



Pasteurization

Milk is pasteurized to destroy milk-borne pathogens.



Cooling and addition of healthy bacteria. Milk is cooled after pasteurization, then *Lactobacillus bulgaricus* and *Streptococcus thermophilus* are added and incubation begins. The primary function of these harmless cultures is to convert milk sugar (lactose) into lactic acid. Note: Some yogurts, like fruit on the bottom yogurt, have fruit/ flavorings added prior to incubation.



Incubation is the setting phase. It serves to promote the growth of cultures and thus, the production of lactic acid. This acid lowers the pH of the mixture, changing the structure of the proteins (namely casein) in milk, and the resulting “coagulated” milk product, yogurt, is formed.



Optional Ingredients Added

Other ingredients – such as fruits and flavorings – are stirred in prior to packaging.



Yogurt Varieties

Greek vs. Regular

Greek-style yogurt is often defined by its thick and creamy texture, created by straining or separating milk solids from liquid whey. Because of this process, Greek-style yogurt is higher in protein (due to the higher concentration of protein), though slightly lower in calcium (as some is lost during straining). Still, most Greek yogurts provide about 20% of the recommended Daily Value (DV) of calcium per cup. Greek-style yogurts are sold sweetened and unsweetened – unsweetened varieties can have less sugar than regular style yogurt.

Live and Active Cultures

Some yogurts carry a seal on the label indicating that the yogurt contains a significant amount of live, active cultures. The Live & Active Cultures seal guarantees that it contains at least 100 million cultures per gram at the time of manufacture, which results in billions of cultures in an eight ounce serving. Most studies suggest that to benefit from probiotics, a daily intake of five to ten billion colony forming units (CFUs) is necessary.



How Should Yogurt *Be* Stored?

Storage & Handling

Yogurt is perishable. To preserve its safety and quality, the following tips are recommended:

- Refrigerate at 40° F or less in a closed container to maintain quality.
- Store yogurt for up to one week, on average. Prolonged refrigeration of yogurt should be avoided as yogurt bacteria tend to decrease in viability and numbers over time.
- Freezing yogurt is safe but only recommended for frozen treats. Freezing will change the consistency and quality of the product. However; in some cases freezing yogurt – specifically if planning to use in smoothies or as a frozen treat – may be preferable. Just make sure to use the frozen yogurt within four months.



What Can I Use Yogurt For?

Dips for fruits or vegetables

Paired with fruit and granola for breakfast or snack

With a little honey or fruit for dessert

As an ingredient in **smoothies** and other recipes

In place of sour cream on baked potatoes or tacos – plain yogurts are best.

In cooking as a substitute for mayonnaise, sour cream, or heavy cream. Or look up recipes for swapping yogurt for oil, butter or buttermilk. Yogurt can have an effect on leavening and texture of foods.

As a soft yogurt cheese (similar to cream cheese) – simply strain the yogurt through a cheesecloth, enjoy the yogurt cheese on bagels or in any of the above ways. The strained liquid whey protein can be used as an addition to smoothies or soups.

HOMEMADE Yogurt



Recipe

INGREDIENTS

- 4 cups 1% pasteurized milk
- ¼ cup plain yogurt
(check ingredient list for Lactobacillus bulgaricus and Streptococcus thermophilus)
- ¼ cup instant dry milk powder

EQUIPMENT

- Food Safe Thermometer
- Oven-safe Dish With Lid
(at least 2 quart)
- Large Pot
(at least 2 quart)

Preparation

1. Place oven-safe dish in oven.
2. Preheat oven to 300° F (oven will sterilize dish and serve as an incubator).
3. Add milk to large pot. Cook on stovetop at medium-high heat, stirring continuously (to prevent milk from burning).
4. Heat milk to 185° F. Maintain heat and cook for an additional 10-20 minutes.
5. Remove milk from heat and turn oven off (do not open oven door).
6. Let milk cool to 110° F, stirring occasionally.
7. In a separate bowl, combine dry milk powder and yogurt. Add 1 cup cooled milk, whisk well.
8. Add yogurt mixture to large pot and whisk well.
9. Remove sterilized dish from oven, pour yogurt mixture from pot into dish and cover with lid.
10. Place in oven for 6-8 hours. Do not open oven door during incubation.
11. After 6-8 hours, yogurt should be set and thick.
12. Remove and refrigerate overnight.
13. Enjoy within 10 days.

For more delicious recipes, visit our website
DairyDiscoveryZone.com

References

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DairyDiscoveryZone.com

2214 Paddock Way, Suite 600, Grand Prairie, TX 75050



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(800) 332-4790

