

What is unpasteurized milk?

Milk and milk products provide a wealth of nutrition benefits. But raw milk can harbor dangerous microorganisms that can pose serious health risks to you and your family. Raw milk is milk from cows, sheep, or goats that has not been pasteurized (heated) to kill harmful bacteria. This raw, unpasteurized milk can carry dangerous bacteria, which are responsible for causing numerous foodborne illnesses.

What are the diseases associated with unpasteurized milk?

- Listeriosis
- *E coli*
- Salmonellosis
- Campylobacteriosis
- Q fever
- *Mycobacterium bovis* infection
- Brucellosis

The most common symptoms of food-borne illness are diarrhea, abdominal cramps, vomiting, head- or muscle-aches, and fever. Symptoms usually appear 12 to 72 hours after eating contaminated food but may occur between 30 minutes and 4 weeks later.

Who is at risk?

Very young, aged, or immunocompromised persons are most susceptible to the pathogens that may be present in raw milk. However anyone can be affected, including healthy young adults.

Outbreaks associated with unpasteurized milk products:

With the advent of mandatory pasteurization, the incidence of milkborne diseases dropped dramatically. In the United States in 1938, milkborne outbreaks constituted approximately 25% of all disease outbreaks due to contaminated food and water. At the beginning of the 21st century, milk and milk products were associated with less than 1% of all such outbreaks.

Since 2005, several outbreaks of disease, including salmonellosis, campylobacteriosis, and *E. coli* infection, that were related to consumption of unpasteurized milk or dairy products have been reported.

During the end of 2005, 18 cases of infection with *E. coli*, mostly among children aged less than 14 years, occurred in Oregon and Washington states. Five patients, aged 1–13 years, were hospitalized, 4 with hemolytic uremic syndrome. Laboratory and risk factor analyses linked the cases to raw milk from a dairy participating in a cow-share program in Washington.

In 2007, 29 cases of *S. enterica* serotype *Typhimurium* infection were associated with consumption of raw milk or raw-milk products in Pennsylvania. A *S. typhimurium* strain isolated from a dairy selling raw milk to consumers at the farm matched the outbreak strain isolated from the case patients by PFGE. Sixteen of the 29 case patients were aged less than 7 years.

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At least 87 people became ill in Kansas in 2 separate outbreaks of campylobacteriosis during the end of 2007. In both outbreaks, illness was associated with consumption of raw milk or raw-milk products.

In 2008, an outbreak of campylobacteriosis in California was associated with consumption of unpasteurized milk supplied from a farm operating a cow-share program. One of the patients consequently developed Guillain-Barre syndrome. Intrastate sale of raw milk is legal in Washington, Pennsylvania, Kansas, and California.

Milk Myths:

While pasteurization has helped provide safe, nutrient-rich milk and cheese for over 120 years, some people continue to believe that pasteurization harms milk and that raw milk is a safe healthier alternative.

Here are some common myths and proven facts about milk and pasteurization:

- Pasteurizing milk **DOES NOT** cause lactose intolerance and allergic reactions. Both raw milk and pasteurized milk can cause allergic reactions in people sensitive to milk proteins.
- Raw milk **DOES NOT** kill dangerous pathogens by itself.
- Pasteurization **DOES NOT** reduce milk's nutritional value.
- Pasteurization **DOES NOT** mean that it is safe to leave milk out of the refrigerator for extended time, particularly after it has been opened.
- Pasteurization **DOES** kill harmful bacteria
- Pasteurizations **DOES** save lives.