

Food Safety and You:

THE DANGERS OF RAW MILK



Pasteurization has helped provide safe, nutrient-rich milk and cheese for over 100 years, yet some people continue to believe that raw milk is a natural food and therefore is healthier and safer than pasteurized milk.

What is raw milk and what is the risk?

- Raw milk is milk from cows, sheep, goats, or other animals that has not been pasteurized. Consumption of raw milk is a health risk.
- Pasteurization is a process that kills harmful bacteria by heating every particle of milk to a specific temperature for a set period of time.
- Raw, unpasteurized milk can carry dangerous bacteria such as *Campylobacter*, *Salmonella*, *E. coli* O157:H7, and *Listeria monocytogenes*, which are responsible for causing numerous foodborne illnesses.

How many outbreaks are related to raw milk?

According to the Centers for Disease Control and Prevention (CDC), from 1998 through 2011, 148 outbreaks due to consumption of raw milk or raw milk products were reported. These outbreaks resulted in 2,384 illnesses, 284 hospitalizations, and 2 deaths. Under reporting occurs in every disease outbreak, therefore the actual number of outbreaks caused by consumption of raw milk is most likely much greater.

Who is at greatest risk?

- Young children
- The elderly
- Pregnant women
- People with a compromised immune system, such as those with cancer, an organ transplant, or HIV/AIDS

How do harmful bacteria get into milk?

While milk does not normally contain harmful bacteria, foodborne pathogens can be found throughout the cows' environment even on farms that follow excellent sanitary practices. Most pathogens enter

the milk supply from contaminated equipment, dirt or manure during or after the milking process. Pathogens such as *Salmonella*, *E. coli*, and *Campylobacter* are normal inhabitants of the cows' intestinal tract and *Listeria* normally lives in the soil and plants on the dairy farm. Pathogens can also get into the milk by excretion from the udder of an infected animal. A cow can appear perfectly normal and still harbor foodborne pathogens. Milk is also an excellent growth media, and bacteria will multiply rapidly unless the milk is immediately cooled. Pasteurization is the only way to insure that the milk does not contain potential pathogens.

What foods have the greatest risk?

- Raw milk or cream
- Soft cheeses such as Brie, Queso Fresco, Asadero, and Queso Blanco made from raw milk
- Yogurt, pudding, ice cream, or frozen yogurt made from raw milk

Some frequently asked questions

1. Raw milk is good for people with lactose intolerance, is that true?

Both raw and pasteurized milk contain lactose and can cause lactose intolerance or symptoms of lactose intolerance in sensitive individuals.

2. Does raw milk contain beneficial or probiotic bacteria?

Probiotics are microorganisms that are believed to be beneficial to the digestive system and overall



health when consumed. Bacteria present in raw milk, such as *Bifidobacteria*, come from fecal matter and are not considered probiotic. When present in milk they are considered as contamination.

3. Does pasteurization change milk's nutritional benefits?

Research has consistently shown little or no difference in the quality and nutritional values of pasteurized and unpasteurized milk. Vitamin D, which aides in calcium absorption, is added to pasteurized milk. Vitamin D is present at very low levels in raw milk.

4. Can raw milk cure diseases, such as asthma, or allergies?

Most raw milk advocates point to the paper published at 2007 by PARSIFAL study group, entitled: Allergic diseases and atopic sensitization in children related to farming and anthroposophic lifestyle. However, what this study found was an inverse association of farm milk consumption with asthma and allergy, not the raw milk. In fact, in the study, about half of the farm milk was boiled. And the authors concluded that "raw milk may contain pathogens, and its consumption may therefore imply serious health risks...at this stage, consumption of raw farm milk cannot be recommended as a preventive measure".

5. Is it legal to buy or sell raw milk?

It is illegal to sell raw milk in Louisiana and federal law requires that all milk shipped across state lines for sale in retail stores must be pasteurized. Federal guidelines do allow individual states to regulate intrastate sale of raw milk, and some states allow for the sale of raw milk in some specific manner.

6. My cows are clean and healthy, how can they carry harmful bacteria?

The cow's digestive tract is the main host for many foodborne pathogens. Cows can harbor these

pathogenic bacteria without themselves being sick or exhibiting any outward signs of illness.

7. I can tell the bad milk by the smell. Can I just use this strategy to judge the safety of raw milk?

No. Pathogenic bacteria are not something you can see, smell, or taste, and contamination with pathogenic bacteria is not necessarily linked with spoilage. In other words, just because the milk is not spoiled does not mean it is safe to drink.

8. What are the symptoms of foodborne illness caused by drinking raw milk?

Specific symptoms depend on the bacteria causing the problem. Most symptoms of foodborne illness include:

- Vomiting, diarrhea, and abdominal pain
- Flu-like symptoms such as fever, headache, and body ache

Most people will recover within a short period of time. However, severe symptoms can develop in high risk individuals.

References

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