

Raw Milk (unpasteurized milk)

Public Health Branch – Factsheet

What is raw milk?

Raw milk is milk from cows, goats, sheep, or other animals that has not been pasteurized. Raw milk may contain harmful bacteria or germs such as *Salmonella*, *E. coli* and *Listeria*. These bacteria can lead to very serious illnesses including fever, vomiting, diarrhea, life-threatening kidney failure, miscarriage and death.

What is pasteurization?

Pasteurization is the process of heating milk to a high enough temperature for a long enough time to kill bacteria or germs in the milk that can cause illness. Pasteurization is exactly the same type of process as cooking poultry or meat. It does not affect the quality or the amount of calcium, protein, riboflavin and vitamin A in milk. Pasteurization of raw milk has prevented thousands of illnesses and deaths.

According to the *Food and Drug Regulations*, milk must be pasteurized before it can be sold in Canada.

What causes raw milk to become contaminated with bacteria?

Bacteria can get into raw milk after direct contact with animal feces during the process of milking dairy animals. Other ways that raw milk can become contaminated is by infection of the animals udder (mastitis); cow diseases (bovine tuberculosis); bacteria that live on the animals' skin; dirty processing equipment; insects, rodents and other animal sources; and humans. Humans can cross-contaminate raw milk from dirty clothing or boots.

Who is at risk of getting ill from drinking raw milk?

Children, pregnant women, older adults people with weakened immune systems such as those living with AIDS or cancer or patients receiving immunosuppressive drugs should not drink unpasteurized milk because they can get sick more easily. It is important to remember that even healthy people of any age can get sick from drinking raw milk. Raw milk will not look, smell or taste contaminated.

Raw Milk Cheese

Raw milk cheese is made from raw milk. While raw milk cannot be sold in Canada, raw milk cheese can be sold. This is because of the way raw milk cheeses are made. The process helps eliminate harmful bacteria or germs that may be in raw milk.

It is important to note that even though raw milk cheese is safe to eat, people who are more at risk of getting sick from drinking raw milk (such as children, pregnant women, older adults and those with weakened immune systems) should avoid eating raw milk cheese, especially soft and semi-soft cheeses (ex: Brie, Camembert and blue-veined cheeses). For these people, choosing cheeses made with pasteurized milk is recommended. Labels on the cheese will show if the cheese is made with pasteurized or unpasteurized milk.

What can you do to protect yourself and your family?

Only buy your milk products from grocery or other commercial stores. Milk you buy must be pasteurized and packaged at an approved dairy plant. If you live in a rural area and cannot buy commercially pasteurized milk, you can follow this process for home pasteurization:

- First, disinfect clean, empty milk bottles and tops by boiling them in water for 10 minutes or by putting them in a preheated oven for 20 minutes at 100° C (212° F).
- Place the raw milk in the top part of a double boiler. Gradually raise the temperature of the milk to 63° C (145° F) or hotter, and keep it at this temperature for at least 30 minutes. Stir often to prevent burning and to keep all the milk at the same temperature.

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- Check the temperature of the milk often with a clean, reliable thermometer. Put the thermometer about two-thirds of the way into the milk; do not rest it on the side or the bottom of the container. If you find the temperature has fallen below 63°C (145° F), raise the temperature to 63° C (145° F) or hotter and start the 30-minute timing over again.
- Cool the pasteurized milk quickly by putting the top part of the double boiler in ice water. Stir often to make it cool faster.
- Pour the cooled milk into the disinfected bottles and put them in the refrigerator at 4°C (40°F).
- Pasteurized milk in the refrigerator should keep for up to two weeks.

NOTE: Do not use a microwave oven to try to pasteurize milk at home. Use the method described above.

For more information on raw milk, please contact your local public health office.

Information for the Public:

http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/_2009/2009_135-eng.php

<http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/raw-milk-lait-cru-eng.php>

<http://www.cdc.gov/foodsafety/rawmilk/raw-milk-index.html>

<http://www.bccdc.ca/foodhealth/dairy/Raw+Milk.htm#>