

FOOD SAFETY

Pasteurization – Why & How

Health Protection Department

Some naturalists and health food proponents believe that raw milk is a pure source of nutrients and vitamins. Others prefer the taste of raw milk or claim that it digests more easily than pasteurized milk. Unfortunately these opinions lead to many cases of food poisoning each year which in turn costs the health care system millions of dollars in medical expenses. For this reason, people who try to sell or give raw milk away are acting illegally and could be fined up to \$5000.00.

So before you consume any raw milk products in the name of purity and health, get informed by reading the following facts about raw milk and why it can harm your health.

WHY IS RAW MILK HAZARDOUS?

Raw milk is untreated milk from cows and goats. While milk is an ideal food for humans because of its nutritional content it is also an ideal food for bacteria. Food poisoning causing bacteria like Salmonella, Campylobacter, Yersinia, Shigella, Coxiella burnetti (Q fever), Listeria monocytogenes and and haemorrhagic Escherichia coli can get into raw milk even with the precautions taken by producers.

The only raw milk products sold legally in Ontario are hard cheeses that have been aged for 60 days or more. These cheeses are safe to eat because proper aging kills harmful bacteria.

WHAT IS PASTEURIZATION?

Pasteurization simply means that raw milk is heated to specific temperatures for a set length of time. This process makes milk bacteriologically safe to drink.

HOME PASTEURIZATION

To pasteurize milk at home you need:

- a good quality cooking pot;
- a probe thermometer,
- heating element

STEPS

- 1) Pour desired amount of milk in pot up to 1 gallon (5 litres) at a time.
- 2) Place on element, heat carefully and stir while heating.
- 3) Take temperature periodically until 63°C (145°F) is reached. Reduce heat.
- 4) Hold milk at this temperature for 30 minutes (set stove on simmer).
- 5) Cool milk immediately after the hot holding period by immersing the pot in cold water and stir the milk.
- 6) Pour milk into a clean, sanitized container and refrigerate. The milk will keep for up to 2 weeks in the refrigerator.

** Do not attempt to pasteurize milk in a microwave oven. Microwave ovens tend to heat unevenly and because of this are not reliable to use for milk pasteurization.*

IS PASTEURIZED MILK LESS NUTRITIOUS?

No. Milk is an excellent source of calcium, vitamin A, riboflavin and protein. Pasteurization has virtually no effect on these nutrients. Commercially pasteurized milk has the added advantage of having vitamin D added to it.

Pasteurization does destroy a small amount of the vitamin C in milk, but milk is not a very good source of vitamin C to begin with.