

November 24, 2006



Dear Editor,

My concern with the health and well-being of the residents of Grey Bruce, prompts me to provide information relevant to the on-going issue regarding unpasteurized milk.

First introduced in the late 1800s, pasteurization resulted in a documented decrease in infant death rates. At that time, raw milk (unpasteurized milk) consumption was linked with typhoid fever, streptococcal disease, diphtheria, tuberculosis, and brucellosis. Pasteurization was made mandatory in Ontario in 1938, was to reduce the incidence of these life-threatening illnesses.

In more recent times, direct epidemiological links have been made between raw milk consumption and infections of *Salmonella*, *Campylobacter*, verotoxigenic *Escherichia coli*, and *Listeria*. These bacteria can cause meningitis, encephalitis, septicemia, endocarditis, spontaneous abortion, and tissue abscesses.

Great Britain is often cited as an example of where raw milk is legally available to the consumer. In England and Wales only 0.01% of the country's 60 million residents drink unpasteurized milk. In 2005, 149 farm gate locations regulated by government inspection, testing, and licensing were eligible to offer unpasteurized milk for sale. The milk is sampled and tested quarterly. The cows must be certified as free from tuberculosis and brucellosis. Unpasteurized milk is sold as "Green Top" milk which is marketed with a green cap on the bottle to clearly identify it as unpasteurized. However, it must be marked with a warning label that states: *This milk has not been heat treated and may therefore contain organisms harmful to health.*

Yet, despite these safety measures outbreaks of illness have been associated with raw milk consumption in Great Britain. For example, in 1980, 2,500 school children contracted gastrointestinal illness from *Campylobacter* bacteria linked to drinking raw milk. Additional food poisoning reports for England and Wales (Northern Ireland doesn't have a registered producer now) indicated that approximately 50% of all milk-related outbreaks from 1992 to 1999 were associated with raw milk even though only a tiny fraction of the population consume it.

It is worthy to note that Scotland imposed a ban on the sale and distribution of raw milk in 1983. Before this ban, the British Food Standards Agency attributed 12 deaths in Scotland to the consumption of raw milk. In the two years immediately prior to compulsory pasteurization there were 1,321 raw milk related outbreaks and four deaths. In contrast, when compulsory pasteurization was introduced in the outbreak numbers fell dramatically as only two cases and no deaths were reported for the year 2000.

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Closer to home, in Ontario during the past year several cases of *Escherichia coli* 0157:H7 were linked to unpasteurized milk consumption. This infection can cause significant immediate adverse health consequences, and some of these patients were hospitalized. In addition, we are still documenting long term adverse health effects in people infected with this organism during the Walkerton outbreak in 2000. At the Grey Bruce Health Unit we investigate several cases of *E. coli* 0157 each year where the most likely exposure is unpasteurized milk.

Farm families have been drinking raw milk for many years. However, the volume of milk is small and it is consumed promptly. It does not enter a large-scale transport and distribution network across a wider population. Milk provides an ideal medium for pathogens to grow. Under ideal conditions *E.coli* can double in number in just 20 minutes.

Further, the Canadian Medical Association maintains that there is no evidence that raw milk is more nutritious than pasteurized milk. Scientific comparison of the two shows no meaningful difference. Despite the myths, the important ingredients in milk, protein, fat, carbohydrate, calcium, riboflavin, pantothenic acid, niacin and vitamins A, D, B₆, E, and K are *not* affected by pasteurization. Although, pasteurization reduces the content of vitamins B, B₁₂, and C, it is by no more than 10%, and other dietary sources can provide these vitamins. Also, blind taste tests confirm that pasteurization does not alter the taste of milk.

There are legitimate means in our society to advocate for changing the regulation regarding the sale and availability of raw milk. If a person, or a group, wants to see a system set up to prudently implement a change they should work toward that goal. Failing that, they would have the option to move to a jurisdiction that permits the lifestyle they seek. In a civil society putting oneself above the law should not be an option for any of us. As Medical Officer of Health, I cannot legally, or in good conscience, disregard the activity of someone who chooses to break the law when their actions jeopardize the health of others.

Together we build healthy communities.

Yours truly,

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