

FRONT BURNER

FROM YOUR LOCAL PUBLIC HEALTH INSPECTOR

DISTRIBUTION OF UNPASTEURIZED MILK LEADS TO E. COLI O157 CASES



Three local cases of E. coli O157 and a link to a fourth case in another jurisdiction in the spring of 2005 led the health unit's investigators to the world of illegally distributed unpasteurized milk.

The first two people were hospitalized with bloody diarrhea and severe abdominal pain. The provincial laboratory tested stool samples and confirmed that they were positive for E. coli O157

The investigation was well underway while inspectors waited for lab results from a third person that was ill. At the same time, a fourth possible case was being investigated by Toronto Public Health. Some of the early facts in the investigation were pointing toward unpasteurized milk as a possible cause of the illness.

The Health Unit was concerned that more people could get sick. Through a news release people were urged to call the Health Unit with any information about the local distribution of unpasteurized milk. Families who may have consumed raw milk were warned of the seriousness of E. coli O157 and advised to seek medical attention if they experienced any of the symptoms.

HEALTH CONNECTION BIG HELP

Health Connection, the health unit's information line, received numerous tips and the communicable disease investigators continued to follow leads. In the meantime, a raw milk sample supplied by one of the families involved was tested and through DNA typing, genetically linked the three Simcoe County cases and the Toronto case to the unpasteurized milk.

This investigation is typical of the way health units work intensively together to stop the spread of illness and to find the source. In addition to the Simcoe Muskoka and Toronto health units, the Ministries of Health and Long-Term Care, Agriculture and Food, and Natural Resources, as well as the Canadian Food Inspection Agency, the Ontario Provincial Police and two local police forces were all involved in the investigation. It took weeks, but the distributor of the milk was located and charged under the Health Protection and Promotion Act.

E. coli O157 bacteria can cause symptoms of watery bloody diarrhea and acute abdominal cramps. Some people, such as the very young, the elderly or those with weakened immune systems, may experience serious illness such as kidney problems or failure. In extreme cases this bacteria can cause death.

Other disease causing bacteria can also be found in unpasteurized milk. And before laws were passed preventing the sale of unpasteurized milk, illnesses such as TB, and brucellosis were much more common than they are now.

Milk that is sold commercially through grocery stores, food markets and restaurants is safe to drink because it is pasteurized. It is illegal to sell, offer to sell, deliver or distribute unpasteurized milk in Ontario.



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Answers To Go

What steps need to be taken when a blood spill occurs?

After an accident has occurred restrict the area to maintain the safety of others. Wear protective clothing and disposable gloves when cleaning up the spill.

A blood spill area must first be cleaned, and excess blood and fluid need to be absorbed and removed with disposable towels. Discard the towels in a plastic lined waste receptacle.

After cleaning, the blood spill area is to be disinfected with a household bleach 10:1 solution of 50 ml bleach mixed with 450 ml warm water. Allow 10 minutes of contact time with the bleach solution.

Contaminated items such as food and any clean up cloths must be discarded. Carpet and upholstered surfaces can be disinfected with a 3% hydrogen peroxide instead of bleach.

Additionally, any contaminated food equipment or food contact surfaces must also be re-washed and sanitized with a double strength bleach solution (200ppm).

OUTBREAK FILES

DANGERS IN RICE – BE SERIOUS ABOUT B. CEREUS

You may be unaware of this! Rice that is not handled properly after cooking can make you and your customers sick.

Fried rice that had been served at two daycare centers caused 14 children and staff to become sick with nausea, abdominal cramps and diarrhea within two hours of eating the food

WHAT WENT WRONG

The rice had been cooked the night before, and cooled at room temperature before refrigeration. During the cooling, a bacteria called *Bacillus cereus* (or *B. cereus*) was able to multiply to high numbers before it was put in the refrigerator overnight.

The next day the rice was pan fried in oil with pieces of cooked chicken and delivered to the daycare early, again sitting out at room temperature before serving, and was then served at lunch hour without reheating. Additional bacteria grew and produced a toxin as it sat waiting to be served. The rice was tested and found to have one million bacteria per gram!

The *B. cereus* bacteria is frequently found in uncooked rice, and the heat



resistant “spores” of this bacteria may survive cooking. Holding the cooked rice at room temperatures can allow the growth of large numbers of bacteria in the rice, and sometimes heat stable toxins are produced that can even survive reheating, such as stir frying.

COOKING RICE THE RIGHT WAY

Key points to remember about preparing and holding rice:

1. Be aware of the food temperature “danger zone”. The danger zone is between 4 C (40 F.) and 60 C (140 F.) Rice must not be left in the danger zone for more than 2 hours.
2. Cool rice quickly. Use shallow pans to cool rice fast and never leave rice out at room temperature. A one or two inch deep container is ideal to cool and hold rice.
3. A general rule is that rice should be boiled in small quantities during the day, thereby reducing the storage time before frying.



RECIPE MAKEOVER

TANDOORI SALMON

In India, meat that has been marinated in a mixture of yoghurt and spices is roasted in a giant urn-shaped clay oven called a tandoor. This marinade can be used with poultry, lamb, beef or vegetables as well.

- 1 side of Salmon (later cut into 6oz portions)
- 2 cups yoghurt
- ¼ cup fresh lemon juice
- 1 ½ tbsp minced peeled ginger root
- 3 cloves garlic, minced fine
- 2 jalapeno or other hot chilies, minced (include seeds for more heat)
- 2 bay leaves
- 2 tsp paprika
- 1 ½ tsp ground cumin
- 1 ½ tsp ground coriander
- 1 tsp turmeric
- 1 tsp salt

Original Recipe courtesy of Ken Schulz, Executive Chef at the Delta Grandview, Huntsville.

Wash hands thoroughly. Drain yoghurt in a cheesecloth-lined (do not re-use liner) colander for 2 hours in the refrigerator. Place drained yoghurt in a bowl and stir in the remaining ingredients, mix well. Pour the marinade over the salmon and let sit in refrigerator for up to 2 hours. Preheat oven to 204 C (400 F). Wash hands thoroughly.

Remove salmon from marinade and cut into 6oz portions. Place on a parchment paper lined tray. Bake for 5-7 minutes until fish has reached an internal temperature of 70 C (158 F). Wash hands thoroughly. Garnish with lemon slices. For a well-rounded healthy and tasty meal, serve with brown rice (see outbreak file above for tips on rice preparation) and a colourful blend of lightly sautéed vegetables like red, green and yellow peppers.

Be sure to refrigerate leftovers promptly.

Note from the nutritionist:

Choose a low fat yoghurt containing 1% or 2% butter or milk fat. Omit salt from the recipe and let diners add to taste.

the STOCK POT

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to automatically receive e-mail updates on food recalls. Being informed about food recalls is helpful, practical and in some cases, can be life-saving!

Planning an event?

When planning a food event other than at your food premise establishment be sure to apply for a Special Events Permit through the health unit. Applications are available on-line at www.simcoemuskokahealth.org or by calling Your Health Connection 721-7520 (1 877 721-7520)



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DISTRICT HEALTH UNIT