

## **FOOD SAFETY FACT SHEET FOR CONSUMERS**

*Bacteria are a common cause of food poisoning. This fact sheet focuses on two types that are frequently associated with meat, poultry, eggs, fish and seafood, and dairy products. You can keep these foods safe to eat by following the recommended control measures.*

### **SALMONELLA**

There are over 2,000 types of Salmonella bacteria. Certain types cause severe food poisoning which strikes within 12-36 hours after eating the contaminated food. Symptoms include nausea, cramps, fever, and diarrhea, which can last from 1 to 7 days. Salmonellosis can be life threatening for the very old and young, as well as individuals suffering from other illnesses.

Salmonella bacteria cause over 40% of all foodborne disease. There are approximately 2 million cases per year, most of which are not reported. Economic losses (lost worker time; recalls of contaminated foods) are of increasing concern as the number of cases rises.

#### **Association with Foods**

Salmonella bacteria occur naturally in the intestinal tracts of animals. Raw beef, pork, turkey, and chicken, as well as raw eggs and unpasteurized milk are the most frequent foods involved in Salmonella outbreaks. Raw oysters and clams from sewage-polluted waters have also been implicated.

### **LISTERIA**

Listeria monocytogenes bacteria cause listeriosis, a serious disease that can infect humans, as well as cattle, sheep, and goats.

In humans, symptoms include rapid onset of headache, fever, nausea, and abdominal pain. The disease can progress to encephalitis or meningitis.

Certain people are more susceptible to Listeria infections. High risk groups include pregnant women, infants and adults with immune system diseases, such as cancer.

About 25% of infected humans die from listeriosis. In pregnant women, miscarriage or stillbirth can result. Survival rates depend on the type of infection, the health status of the individual, and medical treatment. People who recover from encephalitis and meningitis may have poor hearing the vision and difficulty in walking and speaking.

## **Association with Foods**

Listeria bacteria are widespread in nature and can exist in soil, as well as on living and decaying plant material. The bacteria also live in the intestinal tracts of animals. Humans can be carriers without showing symptoms of infection.

Since 1980, there have been several well-documented outbreaks of listeriosis that were apparently caused by eating contaminated cheese, milk and coleslaw. Because the bacteria are able to grow at refrigeration temperatures, extended storage of contaminated ready-to-eat foods can be risky.

## **CONTROL MEASURES**

### **Clean**

Bacteria can be naturally present in raw animal products (meat, poultry, seafood, milk). Good sanitation prevents spreading these bacteria onto foods that won't be cooked (or reheated) before eating cross-contamination).

- Wash surfaces (such as cutting boards) and utensils (such as knives) that come into contact with raw animal products. (Use 1 Tablespoon of chlorine bleach per gallon of water to sanitize surfaces after they've been washed.)
- Wash your hands after handling raw animal products.
- Do not put cooked foods (such as meat or poultry) or ready-to-eat uncooked foods (such as salads or rolls) on surfaces that have not been cleaned after contact with raw animal products (such as cutting boards; plates used to carry barbecued meat).
- Put pans under raw meat, poultry and seafood in the refrigerator to prevent dripping onto other foods.

### **Cook**

Heating destroys bacteria that may be present in raw animal products. Adequate cooking makes these foods perfectly safe to eat. Cook meat, poultry, seafood and eggs thoroughly.

- Cook meat to a medium or well-done stage.
- Poultry is done when the meat is no longer pink and the juice is clear-colored in appearance.
- Cook fish until it turns opaque and flakes when tested with fork.
- Shrimp, crab, lobsters, and scallops should turn opaque. The opening of oyster, clam and mussel shells may not be a good indicator of adequate cooking. Look for an opaque color instead.
- Cook eggs until the whites are no longer runny.
- Use pasteurized milk rather than raw milk.

### **Cool**

Bacteria grow rapidly between 40 °F and 140°F. Do not keep perishable food in this dangerous temperature zone longer than 2 to 3 hours.

- Keep hot foods hot.
- Keep cold foods cold.

For further information, contact your local county Extension Service.

*This fact sheet has been prepared by an interdisciplinary team of Extension Specialists at Oregon State University as part of a USDA funded food safety project.*